

DOCUMENT RESUME

ED 132 896

HE 008 429

TITLE Health Professions Education Facilities in the Non-Profit Sector. 1973.
INSTITUTION Health Resources Administration (DHEW/PHS), Bethesda, Md. Bureau of Health Manpower.
PUB DATE 30 Apr 76
CONTRACT NO1-PE-24023
NOTE 632p.

EDRS PRICE MF-\$1.16 HC-\$34.15 Plus Postage.
DESCRIPTORS Dentistry; *Facility Inventory; *Facility Planning; Facility Requirements; *Facility Utilization Research; *Health Occupations Centers; *Health Occupations Education; *Higher Education; Medicine; *National Surveys; Needs Assessment; Optometrists; Pharmacy; Public Health; Veterinary Medicine
IDENTIFIERS Osteopathy; Podiatry

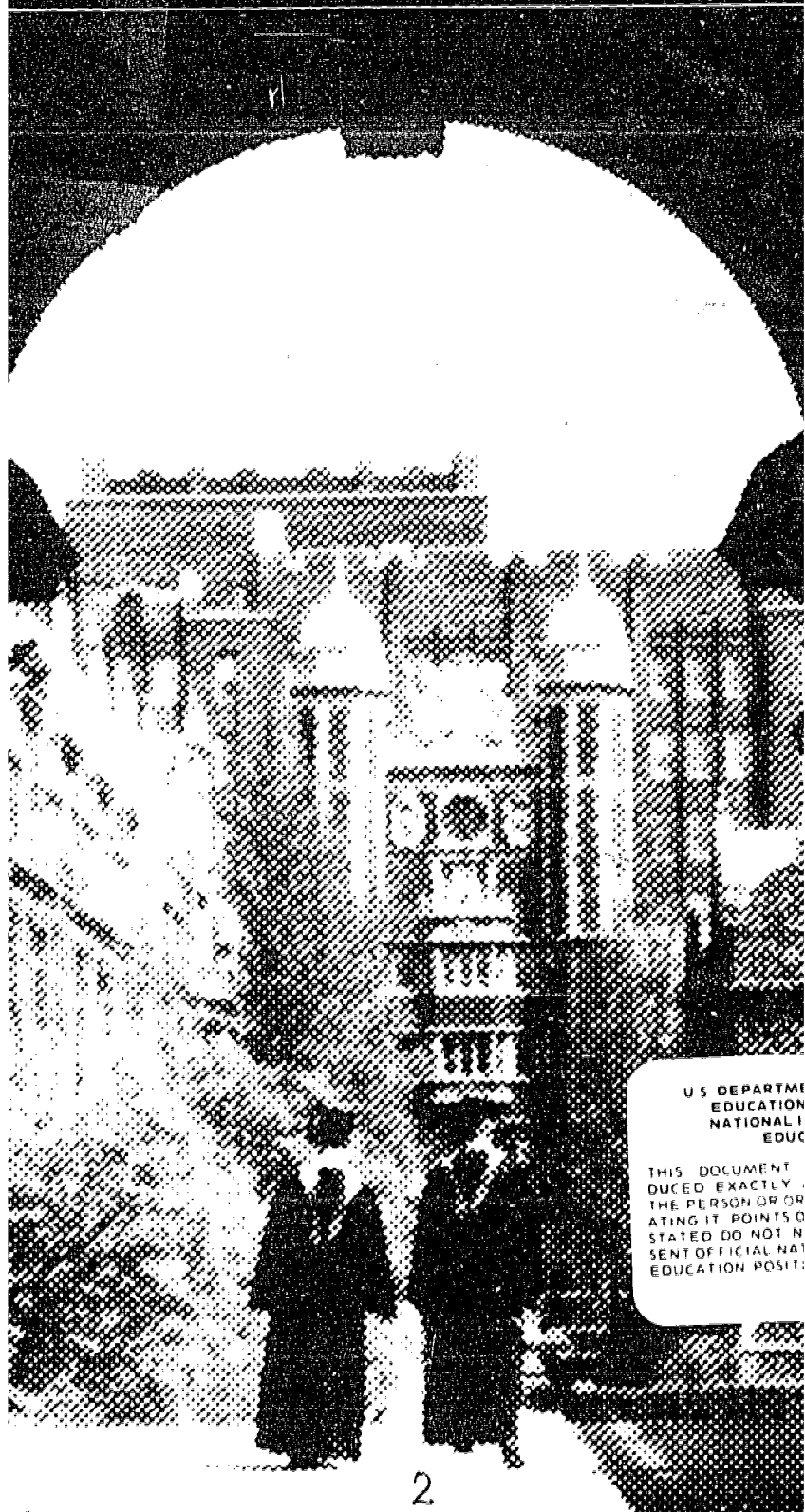
ABSTRACT

In this study of the physical facilities of the nation's health professions schools, all schools of dentistry, medicine, optometry, osteopathy, pharmacy, podiatry, public health, and veterinary medicine, and all parent institutions of the schools, were surveyed in May of 1973. The major goals of this pioneering survey were to assess the nature and use of existing, under construction, and planned facilities, and to forecast the anticipated replacement or expansion of facilities in the following decade. At the time of this writing, three years after the first survey, very few of the data are obsolete. Information on nonclinical instruction facilities has to do with amount, condition, and perceived needs for room types: classrooms, class laboratories, research and research training space, library space, auditoria, faculty offices, administrative areas, animal facilities, and other kinds of space. Clinical teaching facilities available to the schools are also inventoried in square footage and in terms of beds, examination rooms, and ambulatory patient stations. Analyses are made of resource utilization. Census data are projected to determine use of facilities and output of health professionals in future years. (Author/MSE)

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HEALTH PROFESSIONS EDUCATION FACILITIES IN THE NON-PROFIT SECTOR

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE • Public Health Service • Health Resources Administration



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HEALTH PROFESSIONS

EDUCATION FACILITIES

IN THE NON-PROFIT SECTOR

1973

Report of a survey conducted for
the Bureau of Health Manpower
by RRC INTERNATIONAL, INC.

This effort was funded under
contract NO1-PE-24023

April 30, 1976



U.S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Public Health Service

Health Resources Administration

Bureau of Health Manpower

DHEW Publication No. (HRA) 76-89

EXECUTIVE ABSTRACT

In September of 1971, the Bureau of Health Manpower contracted with RRC International, Inc. to conduct a study of the physical facilities of the nation's health professions schools. In very broad terms, the major goals of this pioneering survey were to assess the nature and use of existing, in-process (under construction), and planned facilities at the subject institutions, and, for Federal planning purposes, to forecast the anticipated requirements for replacement or expansion of facilities over the ensuing decade. In addition, the data obtained could be used to assist the individual institutions in comparing and contrasting their operations with schools of similar characteristics.

All 308 schools of Dentistry, Medicine, Optometry, Osteopathy, Pharmacy, Podiatry, Public Health, and Veterinary Medicine were mailed an extensive survey questionnaire in May of 1973. In addition, data were also solicited from the 154 "parent" institutions of the schools surveyed. Satisfactorily completed forms were entered into a computer for access by a team of data analysts. The report which follows is a summarization of their findings.

While the bulk of the data collected pertains to the schools' status as of the fall of 1973, very few, if any, of the survey's findings have been rendered obsolete as of this writing. With regard to the physical facilities inventory itself, sufficient data on new construction (and its impact) were obtained to develop projections of "today's" inventory. In addition, many of the displayed measures of status and usage change very slowly with time--and the patterns in these measures, e.g., the contrasts between publicly controlled and privately controlled schools--remain valid.

The report presents the analyses' results in three sections, each corresponding to a different level of institutional "aggregation":

1. all eight professions combined;
2. each profession independently; and

3. each individual institution.

Two broad classifications of space are dealt with by the report, the first and most detailed treatment being accorded the nonclinical instruction facilities used by the schools. The report displays data concerning amount, condition, and perceived needs for a variety of "room-types" including classroom-type instructional space; class laboratories; research and research training space; library space; auditoria; faculty offices; administrative offices and areas; animal facilities; and other kinds of space in aggregate.

These room-types are also analyzed within the context of their locational "setting" (e.g., classroom building versus hospital or clinic), an identification considered important by virtue of the assumed importance, to a teaching hospital, of having some degree of on-site availability of such room-types.

Inventoried in a less detailed but still substantial way (as a function of data availability) are the clinical teaching facilities available to the schools, both in square footage terms and in terms of beds, exam rooms, and ambulatory patient "stations".

Resource utilization is assessed in a variety of ways, some relatively simplistic (e.g., space and student stations per student), and some highly complex (e.g., percent student station occupancy over time). The latter measure is obtained in a manner which to the researchers' knowledge, represents the first successful attempt to obtain theoretically robust occupancy measures without an on-site audit--and with little chance of bias.

Within the analysis of each profession, the inventory and utilization data are searched for patterns relating to enrollment, ownership, census region, and locale of school (e.g., innercity versus suburban). In addition, cases of "joint-use" (i.e., sharing) of facilities are identified to insure against multiple counting and to enable analysis of joint-usage as a potential means of improving space utilization.

Current and projected student, faculty, and staff population figures were collected to provide census data for use in developing size categories for institutions, and to provide an indication of the projected "output" of health professionals in the future. Respondents were also requested to subjectively estimate student enrollment expansion potential given existing facilities and financial resources and various levels of increased resources.

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PART I: SURVEY OVERVIEW AND METHODOLOGY

I. SUMMARY OF SURVEY GOALS AND METHODOLOGY

A. SURVEY GOALS

One of the primary missions of the Bureau of Health Manpower (BHM) is to stimulate the production of health manpower and thereby assist in improving the Nation's health care delivery system. Beginning with the passage of the Health Professions Educational Assistance Act of 1963 (PL88-129) as amended, this agency has, through such vehicles as matching construction grants, loan guarantees and loan interest subsidies, added to and improved the resources available for the education of health professions students.

The lack of a properly oriented data base reflecting the effects of the continuous Federal investment in educational facilities made it difficult to assess the impact of these facilities upon the status of the health professions schools. In September of 1971, the then-Division of Physician and Health Professions Education contracted with RRC International, Inc. to perform an in-depth survey whose purposes were to identify and verify any health professions education (HPE) facility inadequacies or utilization imbalances; to assess schools' capacities to accommodate, and perhaps expand current enrollment within the existing complement of facilities resources; and to obtain information regarding the Federal impact, both present and potential, on HPE facilities construction. In conjunction with other information, it was anticipated that the survey results would be used to (1) assist the Executive Branch of the Government and Congress to define more accurately their priorities and goals in the health area; and (2) to aid in the formation, as necessary, of alternative strategies for approaching the educational facilities-related aspects of the health care delivery system.

The specific conceptual goals of the large scale undertaking described herein included the following:

- (a) to identify, in the form of an inventory, the current status of HPE facilities - both existing and under construction;
- (b) to establish a data base which would aid in assessing the congruency between existing HPE facilities and the Nation's health care delivery needs;
- (c) to obtain information of use in determining magnitude, direction, and rationale of future HPE facilities construction;
- (d) to begin to identify the fundamental relationships between health manpower output and the instructional facilities required for its production at a given level;
- (e) to help assess the impact of the H.P.E.A. Act of 1963, and subsequent legislation, upon schools' progress in accommodating an increasing health professions enrollment; and
- (f) to identify facilities needs in light of existing and projected levels of health manpower production.

The informational goals of the survey were manifold. Of primary import was the concept of profession-by-profession and school-by-school comparative analysis of the reported space, its utilization, and its condition. Through such analysis, the Bureau would be better able to assess those schools and/or professions which exhibited discrepancies between the availability of, and need for, health education resources. Central to this concept of comparative analysis was the survey's inclusion of all eight health professions (Dentistry, Medicine, Optometry, Osteopathy, Pharmacy, Podiatry, Public Health, and Veterinary Medicine).

In addition, through detailed delineation of the composition of the facilities inventory of each profession the survey would provide information which could aid the facilities planning of new or developing schools, and lend credence to the renovation, replacement, or expansion plans of existing schools. It was further hoped that the survey data would reveal whether or not particular problems were common to schools as a function of size, profession, geographic location/locale, ownership, or curriculum "architecture" (e.g., length of program); while simultaneously yielding information valuable in the formulation of proposals that might (1) help stabilize the operations of "weak schools", (2) provide the appropriate impetus for acceleration of the start of new schools; and (3) encourage retention of schools in urban areas.

B. SUMMARY OF SURVEY METHODOLOGY

In view of the wide reaching goals of the survey, it was recognized that the data gathering instrument would be complex. This complexity, in conjunction with the disparity among the eight professions and hundreds of schools surveyed, was accentuated by the absence of a standard facilities terminology among the health professions. Other problems to be overcome by the design of the instrument were those of potential double-counting of facilities because of the increasing tendency of schools of varying professions to share facilities; the state of flux in the configuration of available facilities caused by ongoing construction and remodeling efforts; and the possibility of bias in view of the subjectivity of the schools' perceptions of their needs.

A panel of 13 top level professionals in the health education field were engaged to help solve these difficult and complex issues. As may be seen in the listing of Appendix B, there was ample representation of expertise not only in physical facilities, but in library science, audio-visual aids, and school administration as well.

With the support of the consultants' panel, the format and context of the instrument began to take shape. For example, it was ultimately determined that two data collection instruments would be required to avoid the problem of double counting: one for data regarding space "allocated to" (controlled by) health professions schools; and one for data concerning those facilities not "allocated" to health professions schools but made available to them by central agencies. In addition, survey terminology was standardized through the development of an extensive set of room-type definitions and terms based on the Higher Education General Information Survey (HEGIS) system developed by the Office of Education. The problem of the shifting facilities configurations available for use by health professions schools was solved by requesting respondents to report three fundamental pieces of information:

- (1) the form and composition of the fall, 1973 inventory;
- (2) a description of the amount and effect of ongoing and fully authorized construction and remodeling programs; and
- (3) an estimate of additional construction and remodeling to be completed by 1983.

To prevent survey bias and to allow an objective assessment of the respondents' facilities utilization figures, the instrument was organized in a way that required the research team to draw data from four pages of the Health Professions School Questionnaire to compute the utilization percentages.

The two survey instruments were pretested in the summer of 1972 with the cooperation of nine health professions schools and three parent institutions covering five health professions. The responses were favorable, indicating fewer problems than had been anticipated; with the most serious potential problem being that high level administrators were required to complete the form. Other problems that arose were the difficulty of fitting certain facility configurations into the mold implied by the instrument, and the excess of detail required for the ten year look-ahead.

The instruments, redesigned to solve these problems, were sent to 462 health professions schools and associated parent institutions (in early 1973) as follows:

| | |
|---------------------|------------|
| Dentistry | 59 |
| Medicine | 114 |
| Optometry | 12 |
| Osteopathy | 8 |
| Pharmacy | 72 |
| Podiatry | 5 |
| Public Health | 18 |
| Veterinary Medicine | 20 |
| Parent Institution | <u>154</u> |
| TOTAL | 462 |

An intensive follow-up campaign of postcards and telephone calls was carried out in mid-October 1973. By December, approximately 85% of the schools had responded. All of the non-respondents were contacted by telephone for an unstructured, informal interview, during which some comparative data were obtained from 31 schools. The forms were then edited, both manually and by computer, to assess the validity of the responses by checks for internal consistency and "reasonableness" in light of other responses. Many hundreds of telephone calls were made, and letters sent, in an effort to obtain as complete and valid a data base as possible without on-site auditing. The machine edit, in addition to making internal consistency checks, also built the computer readable files used for generation of the analytical reports used as the basis of discussion in subsequent parts of this report.

The survey instruments were designed to develop data which would answer the following questions.

- (1) Approximately how much instructional space is available for health professions students (both clinical and nonclinical space)? How do these figures vary (on a per student basis) from school to school? Are there similarities and significant differences (among professions) in the composition of the existing facilities?
- (2) How well utilized are respondents' classrooms and class laboratories?
- (3) What impact has the HPEA Act and subsequent legislation had on the available nonclinical and clinical facilities as they exist today? As they will exist when present construction programs are complete?
- (4) Approximately how much construction and remodeling would be required to transform existing facilities such that they are all considered satisfactory for program purposes?

- (5) For which kinds of schools are clinical facilities limiting factors on trained manpower outputs?
- (6) What is the loading on each Respondent's space by other than health professions students?
- (7) What are the configurations of, funding sources for, and purposes of ongoing construction? How will this construction affect space utilization, manpower production, the overall inventory of space available for health professions educational use, and the composition of the facilities inventory?
- (8) What square footage needs will current construction not fulfill?
- (9) What appear to be the major functional relationships between number of students accommodated and amount of clinical material available for utilization in the educational program?
- (10) What potential do non-major affiliated hospitals have as future major affiliates?
- (11) What relative commitment to audiovisual aids have schools of the different professions exhibited?
- (12) Are changing teaching methods contributing to a mismatch between room size availabilities and needs?
- (13) What are respondents' perceived needs for supportive resources under varying conditions of growth in the student population?
- (14) What construction programs are planned for the next 10 year period? What are their purposes?

The relationship of the above questions to the survey's goals should be obvious. What may not be immediately obvious is that the answers to such questions are not easily obtainable through the medium of a mail survey. It is hoped that knowledgeable researchers in a variety of educational administrative functions will find that the data herein are valuable for their purposes. However, new data--particularly that arising from a mail survey--should be approached with caution. It is one primary intent of this report to lend credence to the survey's findings by describing in some detail the manner in which the survey was performed, its design considerations, and the technical and philosophical approach inherent in the survey instrument. Moreover, some significant discussion will be provided regarding the editing and error correction procedures utilized. Only in this way can both the value--and the shortcomings--of the reported figures be assessed; and it is only by setting forth such background that we can maximize the utility of the survey to its sponsors, and to those schools whose participation has proved a time-consuming, difficult, and costly investment.

For a full description of the methods employed in carrying out this survey, the reader is referred to Appendix A, "Detailed Description of Survey Methodology". Appendix C contains the instruments themselves, as well as their associated instructions and definitions.

II. PRELUDE TO THE ANALYSIS OF SURVEY RESULTS

Before starting the discussion of the survey's findings, a number of topics are covered which will assist in the understanding and interpretation of the analysis. Key among these topics is the definition of a number of concepts and categorizations which are used repeatedly in the discussion and which, though familiar-sounding, have been given specialized meanings in the context of the survey.

A. TECHNICAL DEFINITIONS

The term "nonclinical facilities" represents the following facility types:

- (1) classroom-type (including seminar rooms)
- (2) class laboratory
- (3) research and research training space
- (4) library
- (5) auditorium
- (6) faculty office
- (7) administrative area
- (8) animal facilities

It should be noted that data on the above facility types were gathered not only from the schools, but from their owned and major affiliated hospitals and clinics as well. When discussing this latter data, we shall refer to "nonclinical instruction facilities in clinical areas", recognizing that while we are not dealing with clinical instruction per se, the content of said instruction may relate to clinical topics even though patient contact does not occur.

A second key word which permeates the survey instrument, and thus its analysis, is the word "allocated". Allocated facilities are those nonclinical instruction facilities whose use is controlled by the respondent on a day-to-day basis. As used herein, "allocated" facilities exclude "nonclinical instruction facilities in clinical areas" even if such areas are controlled by the respondent.

In addition to "allocated" facilities and "nonclinical instruction facilities in clinical areas", a school often has access to the nonclinical instruction facilities controlled by a parent institution or its health sciences center. Typical examples of such facilities are libraries, central classroom facilities, and auditoria. The agency, in either case, is denoted as the "parent institution" and the facilities in question are referred to as "joint-use facilities". In its broadest definition, joint-use facilities are those nonclinical instruction facilities used by at least one health profession school, but controlled by an agency other than that health profession school.

Part of the data exposition relates to the "condition" of the facilities as of the survey date. Condition was categorized in three ways:

- (1) Satisfactory for program purposes--implying not only adequacy in the programmatic sense, but physical adequacy as well;
- (2) Needing remodeling--which could involve basic configuration changes, or the addition or improvement of heating, lighting, air conditioning, or power;
- (3) Needing replacement--implying either major structural defects or a required remodeling change so extensive as to preclude economic feasibility.

Finally, it should be noted that the term "respondent" generally describes a school which submitted a survey instrument, whether or not the instrument was complete, and whether or not it was used in our analysis. In Parts 2 and 3 of this report, which deal with the analysis of the data, it should be understood that "respondent" refers only to those schools whose data were analyzed.

Since the size and curriculum type groupings were defined differently for each profession, their discussion is best left to the profession-by-profession analysis. Schools were designated as "small", "medium", or "large" based upon full-time equivalent (FTE) enrollment (undergraduate plus graduate). "Curriculum type" was a two-way division ("classical", "revised") of the schools based on the level of clinical training in the pharmacy curriculum and the first two years of the medical and dental curricula. The underlying reason for choice of this parameter was to determine whether and how this curriculum characteristic would be reflected in facility configurations. Only the schools of dentistry, medicine, and pharmacy were so categorized.

The concept of "locale", as used in the survey instrument, serves to group the schools into four physical environments. "Inner City" schools are those in the older, central business and residential sectors of heavily populated low-income areas. "Outer City" schools are located within the boundaries of a city but are not in those sections of the city considered "inner city". "Suburban" and "rural" schools are, as implied, found in suburban and rural areas. It was felt that the hypothesized "space-at-a-premium" situation in "inner city" locales and the successively decreasing degrees to which this space availability constraint would be felt in the outer locales, might have an observable impact on the reported facilities configurations.

Two "control" categories are used in the analysis: public and private (non profit). "Public" thus encompasses state, county, and local (city/town) control and funding; while "private" is meant to imply private endowment and



(typically) non-profit corporate status. These different types of control might, it was felt, also have an observable impact on facilities configurations.

"Census region", the final categorization parameter, uses the U.S. Census Bureau regional grouping of states into Northeast, North Central, South, and West. Puerto Rico was included in the "South" region for purposes of the study. This parameterization was used primarily for informational rather than analytical purposes, and is used to a limited degree herein.

C. A NOTE OF CAUTION ON THE INTERPRETATION OF SURVEY DATA AND RESULTS

The reader will have inferred from the description of the survey instrument itself and the follow-up and editing procedures employed that the survey was a massive undertaking for each respondent. We cannot be overgenerous in our praise and thanks to those schools which willingly gave of their resources in order to give this survey the response rate ultimately attained. It should be recognized, however, that because of the level of difficulty inherent in responding to the many and varied data requests of the instrument, and, in fact, because of the subjective nature of many of the questions, it is to be expected that some of the individual responses to particular questions will be inaccurate. A statistical construct known as the "Central Limit Theorem", tells us, in essence, that if the data's inaccuracies are randomly distributed, then the "bad data on the high side" will "cancel" the "bad data on the low side" and the resultant mean or average value will be reasonably accurate if the sample size is large "enough". Thus, while the mean values observed in that which follows are felt to be most probably representative of the existing facilities situation, the "high" and "low" values may sometime represent misinterpretations on the part of one or two respondents, or, perhaps, a typographical error in the form of an unrecognizable transposition of digits during the machine entry of a completed response.

That the means are considered representative is useful to the reader who desires to gain insight into the answers to the questions promulgating this survey effort. However, this work was definitely not meant to be evaluative in nature, nor is the computation and discussion of means meant to imply their use as norms or targets (certainly, the reader would disagree if told that his weight "should" equal the weight of the average U.S. citizen). As will be seen, the analysis to follow attempts to describe the facts as they exist--and attempts to find patterns and trends in these facts: but it always does so in the context of description rather than prescription.

As a final caution, this study attempts to measure, in a number of ways, the utilization of health professions education facilities. The sensitivity of the topic of utilization varies as a function of the measure used, and it is felt

that the "percentage utilization" figures derived for classrooms and class laboratories are among the most sensitive. It should thus be recognized that the manner in which these percentages were derived (see Appendix G for details) tended to give results lower than the "true" percentages on a school-by-school basis, primarily due to our choice of a 2,080 hour year in place of the (typically shorter) "academic year" reported by respondents. The reason for this substitution was to put all schools on a comparable basis so that the utilization patterns exhibited across groups of schools (e.g., various locales) could be recognized. Thus, it is not the absolute magnitude of the percentages obtained which is important, but it is the relative magnitudes which give insight into the differences in utilization related to differences in school characteristics.

PART 2: NATIONAL OVERVIEW OF SURVEY FINDINGS

I. INTRODUCTION

Survey forms were sent to 308 schools of the eight health professions and to 154 "parent" institutions in mid 1973. A total of 269 health professions schools and 134 parent institutions responded to the survey. Of the parent institutions responding, 76 indicated that they made space available, on a joint-use basis, to one or more health professions schools.

Of the 269 health professions schools responding, only 239 were used in the analysis. Table 2.I.1 describes how we arrived at the response rate for each profession, and the health profession school universe in total. It should be noted that new and two-year schools, and forms from established schools that did not respond in a substantive manner were not included in the analysis sub-population because the reported facilities configurations likely did not represent the total space needed to support a degree granting program and consequently would not be comparable to other respondents. A school was considered new if the final year class had not been enrolled as of academic year 1973-74.

TABLE 2.I.1
DERIVATION OF SURVEY RESPONSE RATE

| SCHOOLS OF: | NUMBER OF SCHOOLS IN UNIVERSE | NON-RESPONDENT | | | RESPON- DENTS (NO. 1 - NO.2) | NEW OR 2-YEAR SCHOOLS RESPON- DING | ESTAB- LISHED RESPON- DENTS (#3-#4) | NON-SUB- STANTIVE FORMS ESTAB. SCHOOLS | RE- SPONSES USED IN ANALYSIS (#5-#6) | ANALYZED SCHOOLS AS A % OF ESTAB- LISHED UNIVERSE (7/(1-2a-4)) |
|------------------------|---|-----------------------------|-----------------------------|------------------------|---------------------------------------|--|---|--|--|--|
| | | NEW OR 2-YEAR SCHOOLS | ESTAB- LISHED SCHOOLS | TOTAL (#2a+ #2b) | | | | | | |
| | #1 | #2a | #2b | #2c | #3 | #4 | #5 | #6 | #7 | #8 |
| TOTAL | 308 | 5 | 34 | 39 | 269 | 25 | 243 | 5 | 239 | 86 |
| DENTISTRY | 59 | 1 | 5 | 6 | 53 | 7 | 46 | 0 | 46 | 90 |
| MEDICINE | 114 | 3 | 13 | 16 | 98 | 13 | 84 | 4 | 81 | 83 |
| OPTOMETRY | 12 | 0 | 2 | 2 | 10 | 1 | 9 | 0 | 9 | 82 |
| OSTEOPATHY | 8 | 1 | 0 | 1 | 7 | 1 | 6 | 1 | 5 | 83 |
| PHARMACY | 72 | 0 | 8 | 8 | 64 | 0 | 64 | 0 | 64 | 89 |
| PODIATRY | 5 | 0 | 0 | 0 | 5 | 0 | 5 | 0 | 5 | 100 |
| PUBLIC HEALTH | 18 | 0 | 5 | 5 | 13 | 1 | 12 | 0 | 12 | 71 |
| VETERINARY MEDICINE | 20 | 0 | 1 | 1 | 19 | 2 | 17 | 0 | 17 | 94 |

As described in PART 1, the characterization of schools according to locale, size, and so on was performed for each profession to be analyzed, although these characterizations were seldom used for those professions with very few schools. Table 2.I.2 shows, to the limits of our data concerning the survey universe as a whole, the degree of representation of these various characterizations. It should be noted at this point that the chapters on the individual professions each contain a profession-specific table similar to that which follows.

TABLE 2.I.2
RESPONSE RATES FOR KNOWN CHARACTERISTICS OF THE SURVEY UNIVERSE

| ALL SCHOOLS | NUMBER OF SCHOOLS IN UNIVERSE | NON-RESPONDENT | | | RESPONDENTS (NO. 1 - NO. 2) | NEW OR 2-YEAR SCHOOLS RESPONDING | ESTABLISHED RESPONDENTS (#3-#4) | NON-SUBSTANTIVE FORMS ESTAB. SCHOOLS | RE-SPONSES USED IN ANALYSIS (#5-#6) | ANALYZED SCHOOLS AS A % OF ESTABLISHED UNIVERSE (7/(1-2a-4)) |
|--------------|-------------------------------|-----------------------|---------------------|------------------|-----------------------------|----------------------------------|---------------------------------|--------------------------------------|-------------------------------------|--|
| | | NEW OR 2-YEAR SCHOOLS | ESTABLISHED SCHOOLS | TOTAL (#2a+ #2b) | | | | | | |
| | #1 | #2a | #2b | #2c | #3 | #4 | #5 | #6 | #7 | #8 |
| TOTAL | 308 | 5 | 34 | 39 | 269 | 25 | 243 | 5 | 239 | 86 |
| LARGE | 69 | 0 | 3 | 3 | 66 | 0 | 66 | 1 | 65 | 94 |
| MEDIUM | 137 | 0 | 22 | 22 | 115 | 0 | 115 | 2 | 113 | 82 |
| SMALL | 102 | 5 | 9 | 14 | 88 | 25 | 62 | 2 | 61 | 85 |
| PUBLIC | 194 | 3 | 20 | 23 | 171 | 21 | 150 | 2 | 148 | 87 |
| PRIVATE | 114 | 2 | 14 | 16 | 98 | 4 | 93 | 3 | 91 | 84 |
| INNERCITY | | | | | | | | | 101 | |
| OUTERCITY | | | | | | | | | 110 | |
| SUBURBAN | | | | | | | | | 22 | |
| RURAL | | | | | | | | | 6 | |
| CLASSICAL | | | | | | | | | 181 | |
| REVISED | | | | | | | | | 58 | |
| NORTHEAST | 71 | 2 | 7 | 10 | 61 | 4 | 56 | 2 | 55 | 85 |
| NORTHCENTRAL | 87 | 1 | 8 | 8 | 79 | 7 | 72 | 2 | 70 | 88 |
| SOUTH | 101 | 2 | 7 | 9 | 92 | 11 | 81 | 1 | 80 | 91 |
| WEST | 49 | 0 | 12 | 12 | 37 | 3 | 34 | 0 | 34 | 74 |

II. INVENTORY--FALL, 1973

A. NONCLINICAL FACILITIES CONTROLLED BY RESPONDENTS

As may be seen in Table 2.II.1 below, over fifty million Gross Square Feet (GSF) of nonclinical facilities were reported as "owned and controlled" by the 239 health professions schools whose responses are reported herein. The majority of this space, some 34.4 million GSF or 69% of the total, was controlled by 81 schools of medicine. Of the remaining 16.1 million GSF, nearly 7 million were owned by schools of dentistry, with 6.5 million apportioned approximately equally between schools of pharmacy and veterinary medicine.

The survey instrument did not request Gross Square Footage figures corresponding to rented and leased facilities, since it was felt that the latter would often represent portions of buildings, and any GSF reported would thus be an apportionment at best. To avoid apportionment and to assure comparability of room sizes, the survey dealt primarily with Net Assignable Square Footage (NASF). The division between owned and rented NASF is shown in columns 2 and 3 of Table 2.II.1, with the overall average rented portion approaching 6%.

TABLE 2.II.1
OVERVIEW OF NONCLINICAL FACILITIES INVENTORY--FALL, 1973

| | NUMBER OF SCHOOLS | OWNED GSF (1) | OWNED NASF* (2) | RENTED NASF* (3) | OWNED NASF* EX- CLUDING "ON-SITE" PATIENT CARE" AND "OTHER" (4) | RENTED NASF* EX- CLUDING "ON-SITE" PATIENT CARE" AND "OTHER" (5) | NASF* USED IN THE ANALYSIS (6) |
|------------------------|-------------------------|---------------------|-----------------------|------------------------|--|---|--|
| TOTAL | 239 | 50,531 | 32,035 | 1,776 | 23,984 | 1,415 | 25,399 |
| DENTISTRY | 46 | 6,579 | 3,995 | 208 | 2,181 | 158 | 2,339 |
| MEDICINE | 81 | 34,414 | 21,501 | 1,354 | 16,640 | 1,065 | 17,705 |
| OPTOMETRY | 9 | 565 | 354 | 4 | 226 | 0 | 226 |
| OSTEOPATHY | 5 | 698 | 571 | 0 | 226 | 0 | 226 |
| PHARMACY | 64 | 3,060 | 2,281 | 13 | 2,003 | 13 | 2,016 |
| PODIATRY | 5 | 263 | 131 | 9 | 77 | 9 | 86 |
| PUBLIC HEALTH | 12 | 1,511 | 844 | 155 | 772 | 144 | 916 |
| VETERINARY MEDICINE | 17 | 3,441 | 2,358 | 33 | 1,859 | 26 | 1,885 |

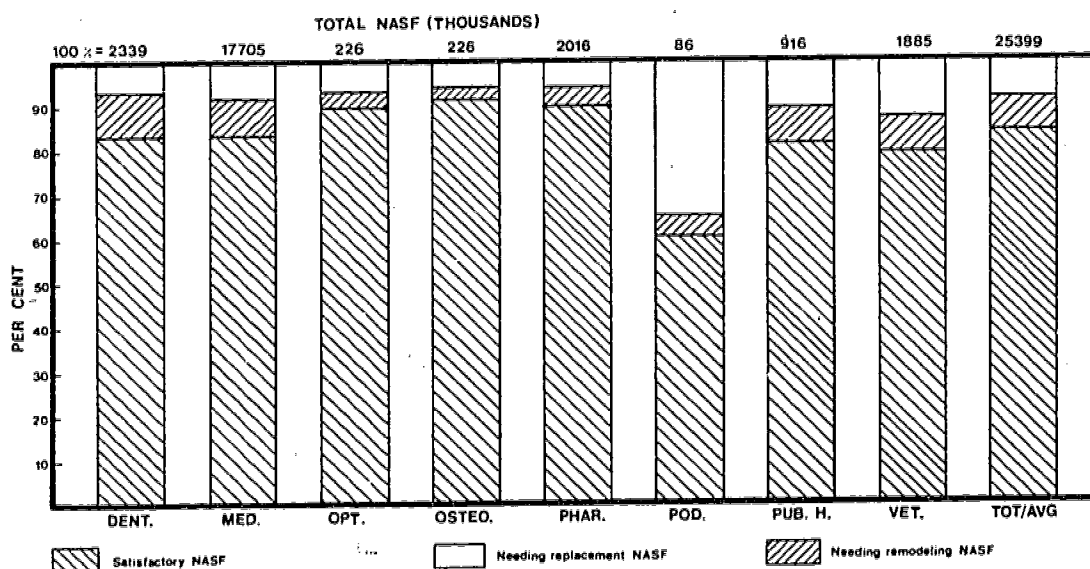
* All figures are in thousands.

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Columns 4 and 5 of Table 2.II.1 reflect a reduction in each school's NASF made in the interests of reporting consistency among schools: space reported as "on-site patient care" or "other" has been removed from the NASF total. "Other" space has been removed since it represents such a wide variety of space types that it does not lend itself to meaningful analysis. "On-site patient care" facilities were allowed (by the survey instrument) to be reported on a page dealing with nonclinical facilities if ease of reporting were enhanced. However, "on-site patient care facilities" cannot be included in an analysis of nonclinical facilities. As may be seen, this exclusion particularly impacts schools of dentistry, which classified nearly 29% of their total space as "on-site patient care".

For the survey respondents as a whole, approximately 85% of the 25.4 million Net Assignable Square Feet reported were considered "satisfactory for program purposes" prior to the effects of ongoing construction and remodeling programs (see Figure 2.II.A below). Of the remaining 5.4 million NASF considered unsatisfactory, nearly 1.7 million NASF could be remodeled and 3.7 million needed replacement. Schools of podiatry reported significantly less "satisfactory" space than the average (viz, 57%) with remodelable space representing only 4,000 of the 57,000 NASF considered "unsatisfactory".

FIGURE 2.II.A
CONDITION OF SPACE--FALL, 1973



B. JOINT-USE FACILITIES AVAILABLE TO HEALTH PROFESSIONS SCHOOLS--FALL, 1973

Joint-use facilities, those facilities "not allocated to a health professions school but used by at least one such school", were offered by 76 central administrative agencies. The 7.2 million NASF reported represented a 29% addition to the 25 million NASF controlled by respondents. Nearly 5.1 of the 7.2 million NASF were used by the public sector (57 respondents) with the remaining 1.6 million made available by the 19 private "parent institutions". Placing this 4 to 1 division into the context of the absolute amounts of NASF allocated to the health professions schools in the two sectors, it is found that publicly-controlled health professions schools have approximately three times greater "relative" access to non-allocated joint-use space than private institutions. As will be seen in the discussion of individual health professions, the result is a proportionately greater need for "controlled" space on the part of institutions in the private sector.

Typically, joint-use facilities were made available to 2 or more health professions schools (on a single campus) simultaneously, rather than to one health professions school and one or more other schools of non-related professions. The one exception to this typical structure related to schools of pharmacy, 21 of which were indicated by their so-called "parent institutions" as being the only health profession school to whom joint-use space was offered. Apparently in most instances, pharmacy students take general courses offered by the parent institution during the first two years of a 5-year pharmacy program. Thus, pharmacy schools affiliated with a parent institution show a high incidence of "joint-usage" of facilities.

The room-type with the largest representation was "library", whose 3.1 million NASF represented 43% of the total joint-use space offered. Classroom space, also multi-purpose in nature, accounted for another 14.5% of the joint-use facilities. The space distribution over the remaining room-types, and summary data on numbers of rooms and student stations, may be seen in Table 2.II.2.

TABLE 2.II.2
DISTRIBUTION OF SPACE AMONG JOINT-USE ROOM-TYPES

| | NASF(000) | % OF TOTAL | NUMBER OF STUDENT STATIONS | NASF PER* STATION | NUMBER OF ROOMS | NASF PER* ROOM |
|------------------------|-----------|---------------|-------------------------------------|-------------------------|-----------------------|----------------------|
| Classrooms | 1,052 | 14.5 | 74,678 | 13 | 1,197 | 879 |
| Class Laboratories | 689 | 9.5 | 13,185 | 45 | 647 | 1,065 |
| Res. & Res. Train. | 650 | 9.0 | 1,596 | 148 | 1,777 | 366 |
| Library | 3,129 | 43.2 | 32,225 | 84 | -- | -- |
| Auditoria | 275 | 3.8 | 29,758 | 9 | 75 | 3,627 |
| Faculty Offices | 417 | 5.8 | -- | -- | 1,252 | 331 |
| Administrative Offices | 602 | 8.3 | -- | -- | -- | -- |
| Animal Facilities | 432 | 6.0 | -- | -- | -- | -- |

* A few institutions did not supply the number of stations and/or rooms associated with the NASF in each room-type category. The NASF per room and NASF per student station figures displayed were calculated from only those institutions which supplied both data items required in the computation, and thus reflect the true means, rather than "total NASF divided by the number of rooms (stations) reported".

The condition of these facilities was, on the whole, somewhat better than that of the "allocated" (controlled) inventory. While only 84% of the latter was reported as "satisfactory", the corresponding percentage for joint-use space was 92%. This percentage was engendered primarily by the public sector's overwhelming portion of the joint-use inventory, with the 19 institutions in the private sector reporting an aggregate of 97% satisfactory space.

Three percent of the private sector's joint-use space was reported to be in a state which could not be rectified through remodeling. The corresponding figure for the public institutions was 3.2%, but the latter represents 183,000 NASF, nearly four times the absolute amount reported by institutions in the private sector.

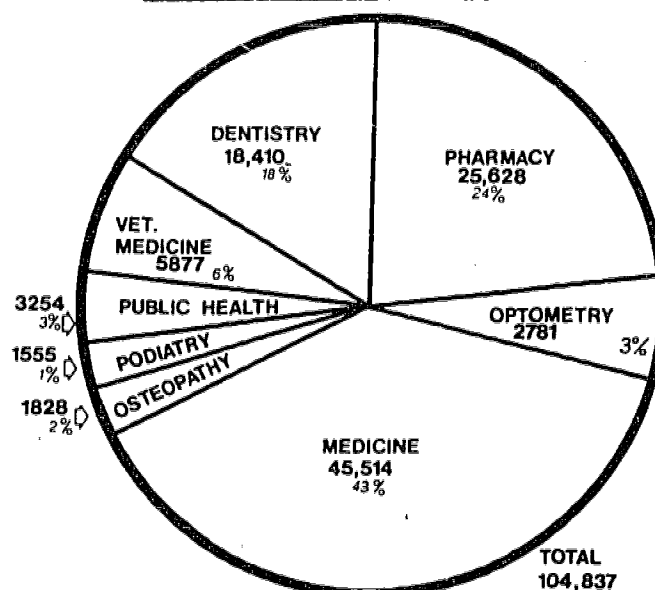
On a room-type basis, the "satisfactory space" percentages (92%) barely fluctuate, with two exceptions. Only 78% of animal facilities in the private sector were considered satisfactory; and only 85% of the auditorium space in the public sector was considered satisfactory. In sum, while 8% of 7.2 million NASF is quite significant in terms of remodeling or replacement dollars, no particular room-type exhibits a highly disproportionate need.

C. THE STUDENT POPULATION UTILIZING THE FALL, 1973 INVENTORY

The total full-time equivalent enrollment reported in the 239 responses used was 104,837. Forty-three percent of these students were enrolled at medical schools, with the bulk of the remainder in schools of pharmacy and dentistry. Furthermore, the respondents reported that 272,500 "other" students were using the "allocated" facilities (for example, continuing education, interns and residents, students in the allied health fields, and so on). Figure 2.II.B below, details the percentage distribution of full-time equivalent enrollment reported by the respondents in each of the eight health professions surveyed.

The apportionment of full-time equivalent enrollment (graduate plus undergraduate) over the four locale types "innercity", "outercity", "suburban", and "rural" showed that 93% of the approximately 104.8 thousand FTE students were enrolled in innercity and outercity locales (divided approximately 50/50); and the remaining 7% were divided in approximately a 3.5 to 1 ratio between suburban and rural settings. The 91 schools in the private sector accounted for approximately 40.9 thousand of the FTE enrollment (39%), while the remainder (63.9 thousand) were reported by the 148 schools in the public sector (61%).

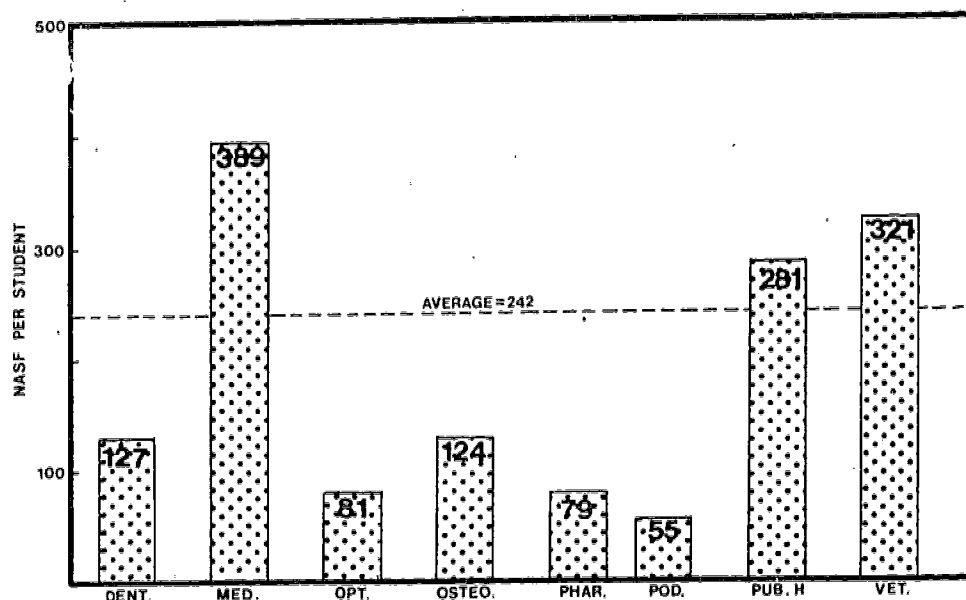
FIGURE 2.II.B
DISTRIBUTION OF STUDENT POPULATION (FTE GRADUATE AND UNDERGRADUATE
HEALTH PROFESSIONS STUDENTS)



D. USAGE OF THE CURRENT INVENTORY

Combining the full-time equivalent enrollment information with the net assignable square footage information previously described yields initial insight into the intensity of use to which the various professions put their respective controlled ("allocated") space. Total nonclinical instruction facilities per student were reported to be 242 NASF. This figure is interesting only to the extent that it helps highlight the understandably wide differences among the professions (see Figure 2.II.C); and as a topic is best left to profession-by-profession analysis, as are most topics of facilities usage.

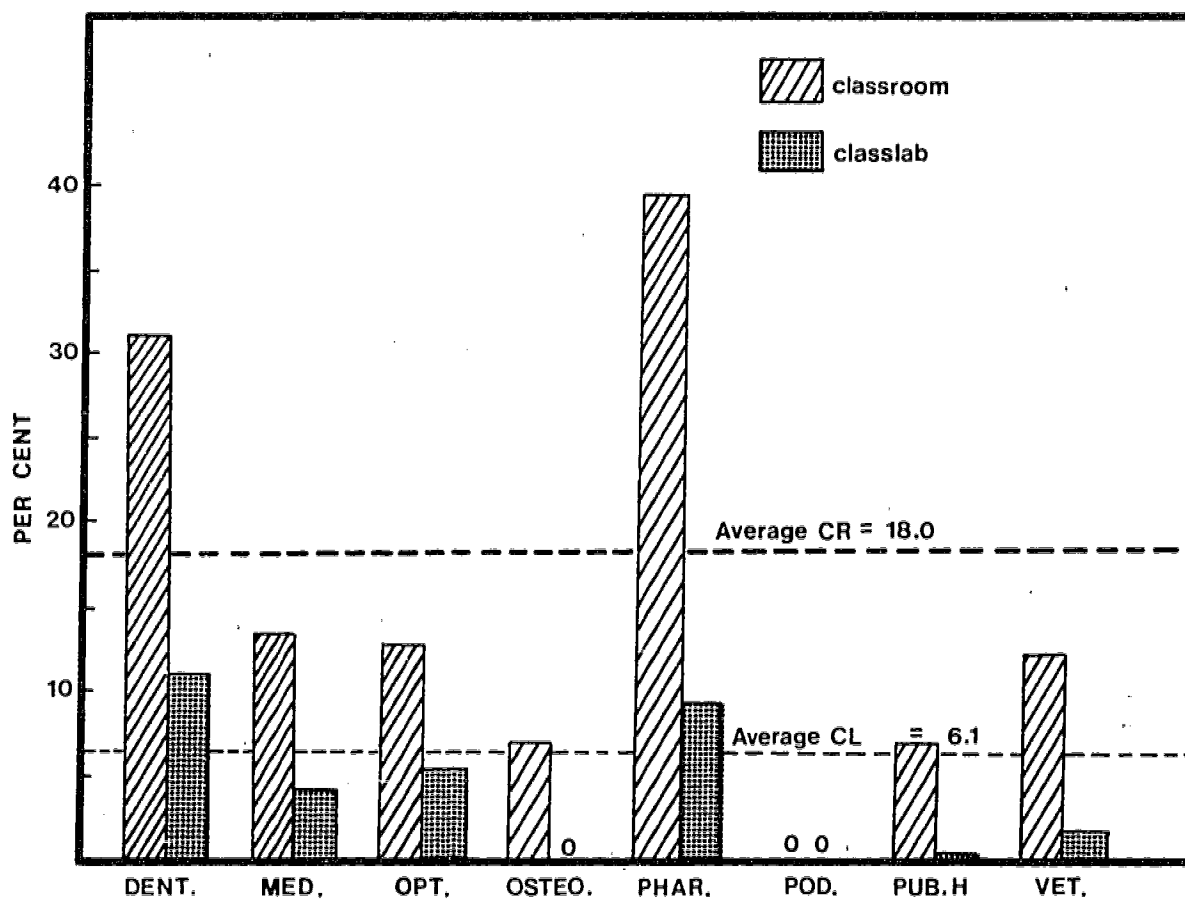
FIGURE 2.II.C
NASF PER STUDENT, FALL, 1973



In only one case has a comparison been pursued: that of the relative availability of joint-use space for classroom and class laboratory instructional purposes. To study the issue of relative joint-usage, the researchers added the number of hours that each health profession reported jointly-utilizing classrooms and class laboratories and divided this value (by type of space) to the total hours used in "controlled" facilities. Obviously, the ratio would give

some indication of the relative degree to which each of the eight professions utilized classrooms and class laboratories not under their control. This computation pointed up in quantitative terms the "dependency" of the schools upon cross-utilization of facilities. Classrooms in schools of pharmacy showed a ratio of 39.2% reflecting the previously described practice of teaching early courses together with students from other curricula. Schools of medicine, reporting 122 thousand hours of joint-usage per year (the highest in the sample) exhibited a 15% ratio of joint-use to controlled hours; while schools of dentistry indicated a ratio of 31%. These relationships are portrayed in Figure 2.II.D.

FIGURE 2.II.D
UTILIZATION OF JOINT-USE SPACE FOR CLASSROOM
AND CLASS LABORATORY INSTRUCTION--FALL, 1973



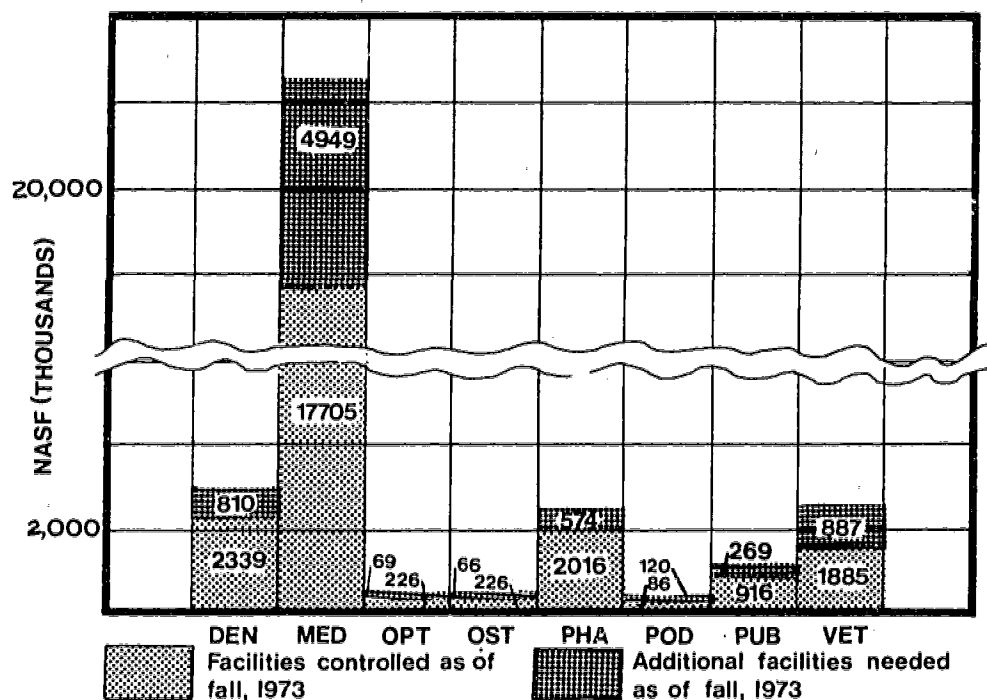
The picture was quite different for class laboratory "dependency" as may also be seen in Figure 2.II.D. The "all-respondents'" average percentage was 6.1, with the high exhibited by schools of dentistry (16.3%). Schools of pharmacy were again relatively high at 10.4%. The specialized nature of the activities that take place in class laboratories (as opposed to classrooms) limits the possibilities for joint usage by a number of professions.

E. FACILITIES NEEDED PRIOR TO ONGOING CONSTRUCTION AND REMODELING--FALL, 1973

Each respondent was asked to indicate the Net Assignable Square Footage of space (by type of space) needed to satisfactorily accommodate fall, 1973 full-time undergraduate and graduate health professions enrollment. Respondents were further instructed not to consider the capacity of ongoing construction or remodeling programs to alleviate this need.

Respondents reported that just over 7.7 million NASF of space were needed as of fall, 1973, a figure representing 30.3 percent of the inventory as of the survey date. Since two-thirds of this need was reported to be due to overcrowding, it may be concluded that if respondents' subjective estimates are at all accurate, between 20 and 25 percent expansion in facilities would be required to accommodate (pre construction) enrollment.

FIGURE 2.II.E
NONCLINICAL FACILITIES NEEDS, FALL, 1973



Recognizing that the needs of schools might not always be facilities-oriented, but attempting to remain within the intended scope of the study, the survey instrument asked respondents to indicate the resources (other than facilities) which they felt were required to "satisfactorily accommodate" their present student enrollment. The frequencies with which each type of resource was indicated were tallied over all of the health professions, and by health profession. Potential resource needs named explicitly by the instrument were faculty, staff, operating funds, funds for equipment, beds, and examining and treatment rooms. As an integral part of the same question, respondents were also requested to indicate their current minimum need for net assignable square footage by type of space. For the population as a whole, the item most frequently checked was that of "faculty", with staff and operating funds close behind (the frequencies here were 182, 178, and 175, respectively). Faculty office space was the next most frequently indicated resource need (145 tallies). The need for hospital beds was indicated the smallest number of times (44), although 22 of the 81 respondent schools of medicine did indicate such a need.

F. CLINICAL FACILITIES AVAILABLE FOR RESPONDENTS' USE--FALL, 1973

Survey respondents reported a total of 131.8 million gross square feet of clinical instruction (student-patient contact) facilities available for their use excluding the so-called "minor affiliates". Since, as instructed, two or more schools using the same hospital had reported the hospital's total GSF, duplicate hospitals were carefully omitted from this tally. There were 86 owned, and 278 different major affiliated hospitals and clinics reported.

The total availability of beds (or in the case of veterinary medicine, animal holding units) for clinical training, including so-called "minor affiliates" and "on-site patient care facilities", was over 240,000 for the respondents as a whole. The total availability of ambulatory patient stations (in examining and treatment rooms) was about 33,000. (It should be noted that the latter figures do represent a minor degree of double counting, most often by schools of two or more different health professions. Since the instructional use of one bed by two different health professions does not give rise to much competition for the clinical resource, the double counting of such resources (in the total) is not considered a serious problem. At any rate, the degree of double counting is known to be no more than approximately 2%.)

In addition to the owned and major affiliated hospitals and clinics reported by respondents, 721 other hospitals and clinics were reported as used for instructional purposes, although not as major components in the clinical training program. These clinical facilities represented a total of nearly 107,000 teaching beds. Schools of medicine reported the use of 350 "minor affiliates", with a total of nearly 75,000 beds.

In addition to facilities for student-patient contact, hospitals and clinics reported 5.85 million NASF of non-clinical instruction facilities (such as classrooms and class laboratories) available for health professions school use. The bulk of the latter facilities were used by schools of medicine (5.05 million NASF). In contrast to the eighty-five percent of the non-clinic-based instructional facilities reported as "satisfactory" for program purposes, only 73% of the nonclinical instruction facilities in hospitals and clinics were

reported "satisfactory". Just over half of the remaining space is considered to need only remodeling in order to bring it to a satisfactory state.

Major uses to which these nonclinical instruction facilities in clinical areas were put varied greatly from profession to profession as will be detailed later. For schools of osteopathy, for example, over 46 percent of the space was classroom-type: the corresponding figure for schools of medicine was 11 percent. Schools of dentistry indicated that auditoria represented the greatest proportion of the facilities that they used in hospitals and clinics (44%).

Table 2.II.3 below details, for each health profession and each type of space defined on the survey form, the total NASF that was available for use by health professions students, excluding inpatient care areas, ambulatory areas, and "joint-use" facilities. It is important to recognize two major points here:

- (1) the sum across each row for "classroom type" through "animal facilities" will not necessarily equal the figure reported in the "total" column. Many respondents were not able to allocate the total space used (in hospitals and clinics) among the various space types; as a result they reported only the total.
- (2) The survey's instructions indicated that if two or more schools were using the same non-clinical instruction facilities at a given hospital or clinic, they should both report the entire facility, and indicate the other schools involved. A number of cases occurred in which this situation was found; so an apportionment procedure, based upon each school's usage of the facilities, was instituted. In brief, "usage" was defined as student contact hour loading produced by each school. (See Appendix I for a description of the method).

TABLE 2.II.3
TOTAL AVAILABILITY OF INSTRUCTIONAL SPACE IN CLINICAL AND NONCLINICAL SETTINGS*
FALL - 1973

| | TOTAL | CLASS- ROOMS | CLASS- LABS | RE- SEARCH | LIB- RARY | AUDI- TORIA | FACULTY OFFICES | ADMINIS- TRATIVE | ANIMAL FACIL- ITIES |
|---------------------|--------|-----------------|----------------|---------------|--------------|----------------|--------------------|---------------------|---------------------------|
| Dentistry | 2,539 | 299 | 665 | 483 | 173 | 109 | 451 | 258 | 74 |
| Medicine | 22,751 | 1,451 | 2,176 | 9,074 | 1,410 | 606 | 3,300 | 2,435 | 1,444 |
| Optometry | 233 | 36 | 74 | 29 | 27 | 6 | 31 | 29 | 1 |
| Osteopathy | 287 | 54 | 49 | 26 | 28 | 13 | 53 | 47 | 12 |
| Pharmacy | 2,260 | 223 | 785 | 546 | 163 | 93 | 71 | 129 | 64 |
| Podiatry | 87 | 29 | 21 | 1 | 6 | 4 | 10 | 14 | 0 |
| Public Health | 921 | 92 | 45 | 341 | 56 | 20 | 223 | 103 | 44 |
| Veterinary Medicine | 2,173 | 128 | 388 | 665 | 56 | 16 | 190 | 109 | 592 |
| Total | 31,251 | 2,312 | 4,203 | 11,165 | 1,919 | 867 | 4,329 | 3,124 | 2,231 |

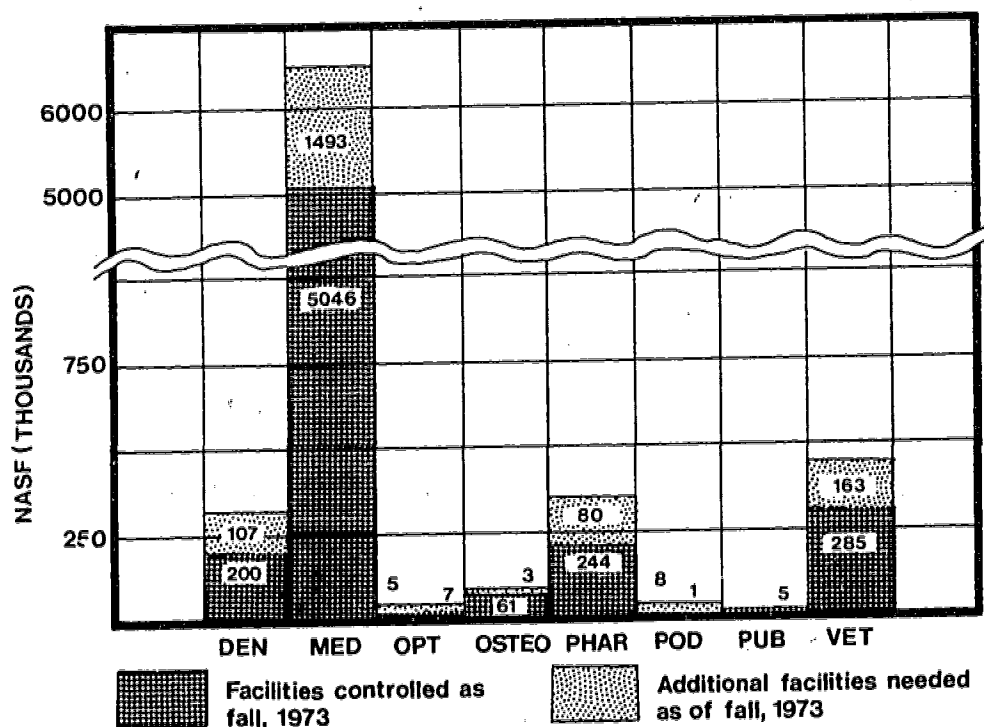
Note: This table tallies the total availability of instructional space in clinical and nonclinical settings, but excludes joint-use space.

* All figures are in thousands of NASF.

G. CLINICAL FACILITIES NEEDS PRIOR TO ONGOING CONSTRUCTION AND REMODELING PROGRAMS

Analogous with the information gathered on allocated (controlled) nonclinical facilities, respondents were requested to report, for each owned and major affiliated hospital, the NASF felt to be required for satisfactorily accommodating fall, 1973 enrollment levels. Again, respondents were instructed not to consider any ameliorating effects of existing construction and remodeling programs. In all, 1.86 million NASF were perceived as needed, 54% of which were for relief of overcrowding at medical schools' owned and major affiliated hospitals.

FIGURE 2.II.F
CLINICAL FACILITIES NEEDS, FALL, 1973



In an effort to gain insight into the future potential for transforming (into major affiliates) the 721 minor affiliated hospitals and clinics reported by

respondents, the survey instrument requested the reason, if any, why these affiliates were not used as major affiliates. For the 573 cases in which this question was answered, there were 162 cases of "no particular problem", 81 cases of "lack of sufficient faculty to use the facility", and 31 cases of "interpersonal or interorganizational problems currently preclude the possibility". At first glance, then, it would appear that about 40% of these facilities (representing 46,000 beds and 1,500 ambulatory patient stations) could be transformed into major affiliates, if needed, at minimal expense from the point of view of physical plant.

Of the other reasons cited, the problem of distance from the school's instructional facility was noted most frequently (91 occurrences). Frequencies with which other reasons were given were: 30 (physical facilities must be altered); 51 (clinical material not adequate); and 44 ("other"). The above reported facilities thus represent a clinical teaching resource which can be brought to bear if additional major affiliation agreements can be provided.

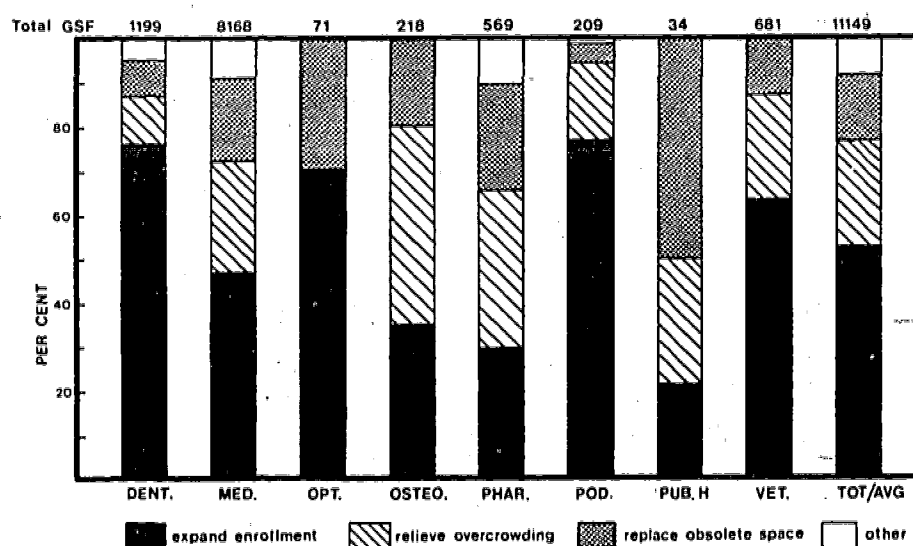
III. ONGOING CONSTRUCTION AND REMODELING AS OF FALL, 1973, AND THE POST CONSTRUCTION INVENTORY

A. NONCLINICAL INSTRUCTION FACILITIES

1. Extent of Ongoing Construction and Remodeling

60 of the 239 respondent schools reported 11.1 million GSF (5.17 million NASF) under construction as of the survey date, at a cost of about \$750 million. Remodeling was much less prevalent (about 1.65 million Net Square Feet reported by 68 schools), and much less expensive. The total expenditure for the remodeling was reported as \$64.7 million -- an average of \$38. per NSF as opposed to the \$66 per GSF new construction cost. Schools of medicine accounted for just over 75% of the total expenditure for new construction, with schools of dentistry and veterinary medicine combined accounting for another 17.5%. These three professions were also the most notable with regard to their ongoing remodeling efforts, with nearly 78% of the reported total underway at schools of medicine and another 19% at schools of dentistry and veterinary medicine.

FIGURE 2.III.A
AMOUNT AND PURPOSE OF ONGOING AND FULLY AUTHORIZED NEW CONSTRUCTION
OF ALLOCATED FACILITIES



In reporting the purposes of the Gross Square Footage of new construction, respondents indicated that 32% of the new space was for the purposes of relieving overcrowding; with 37%, 21%, and 8%, respectively, for expanding enrollment, replacing obsolete space, and other purposes. Applying the 32% to the (5.17 million) NASF being constructed, we obtain 1.65 million NASF being built for relief of overcrowding. Recalling that of the 7.7 million NASF preconstruction need expressed by respondents, approximately two-thirds was for relief of overcrowding, it can be seen that the construction in progress as of the survey date would serve to fulfill only 32% of these needs. Moreover, since 37% of the ongoing construction was for the expressed purpose of expanding enrollment, the problem of overcrowding may be heightened for particular room types.

2. Sources of Funds for Ongoing Construction and Remodeling, Fall 1973

Of the \$823 million construction and remodeling cost reported for non-clinical instruction facilities, 41% was obtained through state and local sources, with HPEA construction grants the second largest source of funds at 27%. Of the remaining \$201 million, borrowed funds, philanthropic contributions, and institutions' private funds ranked about equally at the \$50 million level, with the remaining \$50 million being supplied by "other federal" and "other" sources. It should be noted that the above figures by no means represent all of the Nation's health profession school-related construction and remodeling dollars, even for our respondent population. An additional \$1.25 billion expenditure for construction and remodeling of hospitals and clinics will be described in a later section.

We bring up the latter expenditure since, as a function of the design of the survey instrument, \$92 million of funding reported under the HPEA Act appears under construction and remodeling in major affiliated hospitals and clinics. These funds were used in the validation of the HPEA funding data supplied by respondents, as described below.

In an effort to validate the results obtained in response to those sections of the survey pertaining to the sources of funding for ongoing construction and remodeling programs, BHM data files concerning HPEA construc-

tion grants were accessed for the responding and non-responding schools. The BHM data indicated that a total of \$321 million was awarded for construction and remodeling programs effective as of fall, 1973. The survey respondents reported \$316 million of HPEA grants. Two areas were identified for explaining this 1.6 percent discrepancy. First, although we cannot specify the exact amount, it was determined that some respondents had placed certain of the HPEA supplied funding into the category "other Federal sources", thus lowering the survey figures. Partially compensating for that decrease, however, was the inclusion of an also undetermined amount of special projects grants in the survey's HPEA figure. In short, then, these two factors resulted in a small overall variance between survey findings and Federal figures, but they do not have major impact on the general analysis.

As a further comparison, the BHM data were distributed by control, size, and profession--in a manner paralleling that used in the analysis of the survey data. This comparison revealed another difference between the respective sets of figures. When HPEA funds are used by two or more schools in a joint project, an "allocation" of these funds (to the participating schools) is made by BHM through an algorithm based on the school's projected usage of the new facility. Survey response data were likewise apportioned, but, as a function of data availability, a different algorithm was used herein. As a result, an (again) undetermined but relatively minor amount of money was attributed to professions and size groups in a different manner than that inherent in the Government's figures.

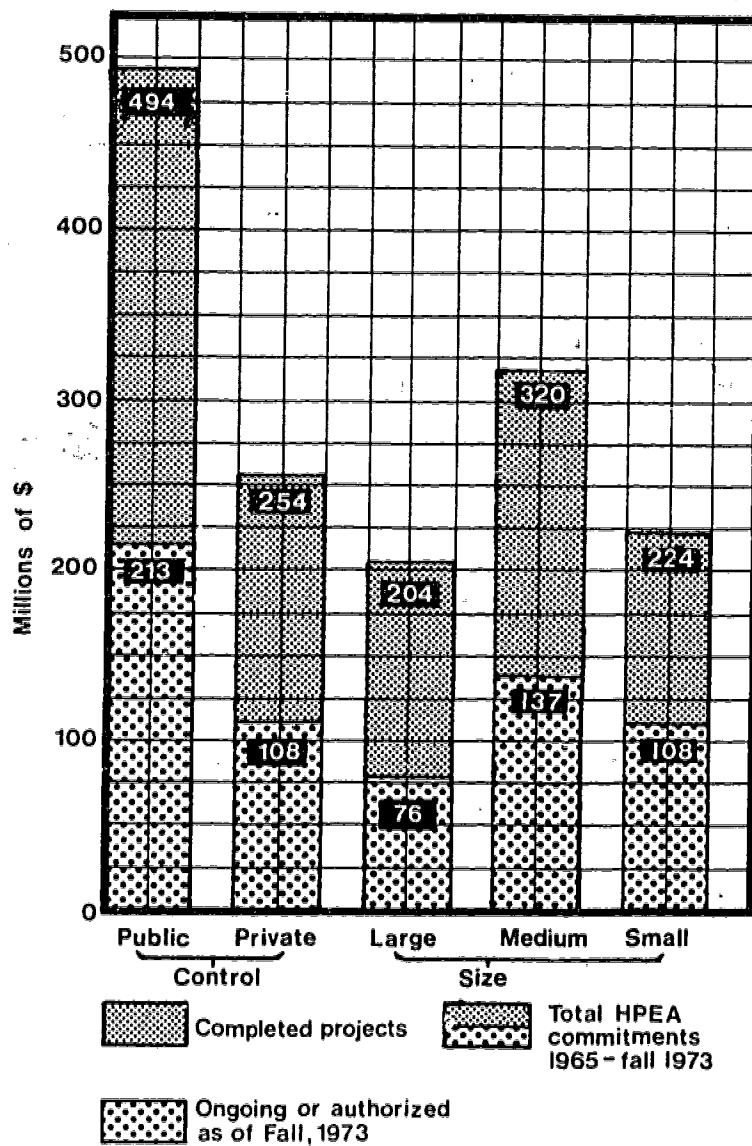
An additional benefit was derived from accessing BHM files since the survey did not attempt to gather historical data relating to source of funds. This information is, of course, available in the BHM files. Therefore, to give a macroscopic view of the HPEA Act's contributions to the health professions facilities configuration, BHM data will be related here.

Overall, from 1965 through the fall of 1973 HPEA construction grants totaled approximately \$927 million. Eighty-one percent of this figure was represented by the respondent institutions used in the survey analysis. For the latter subpopulation of the survey universe, almost twice as much

HPEA funding has been made available to publicly controlled schools as to those in the private sector (see Figure 2.III.B); while about one and one-half times as much has been given to schools which, by 1973, were "medium sized" than were "small" or "large" by that point in time. Obviously, the funding had, itself, shifted schools upward in size over the ten year life of the Program.

FIGURE 2.III.B

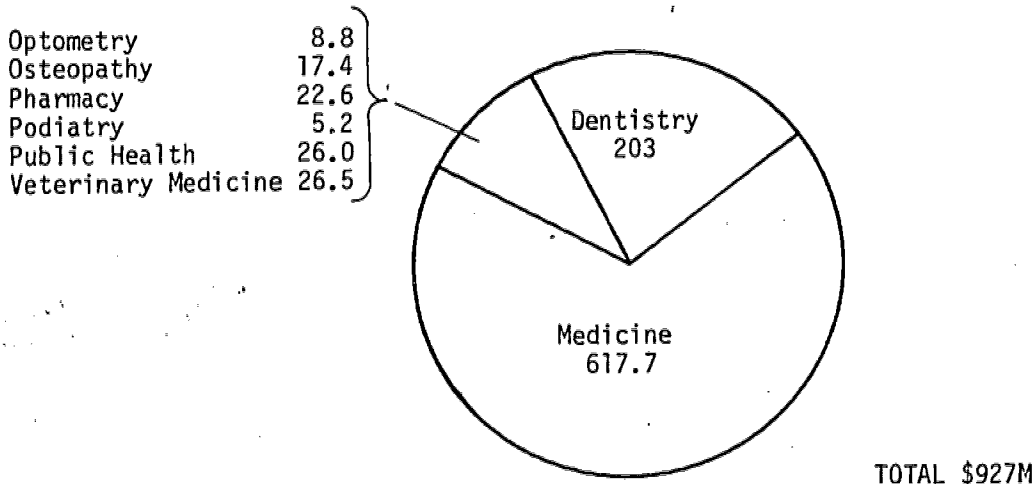
HPEA CONTRIBUTION AS A FUNCTION OF SIZE AND CONTROL OF SCHOOL



80

Figure 2.III.C apportions the total HPEA construction grant outlay among the Nation's health professions schools.

FIGURE 2.III.C
HPEA CONSTRUCTION GRANTS FOR CONSTRUCTION AND REMODELING OF
CLINICAL AND NONCLINICAL INSTRUCTION FACILITIES -- 1965 -
FALL, 1973



3. Effects of Construction and Remodeling

a. An Assumption

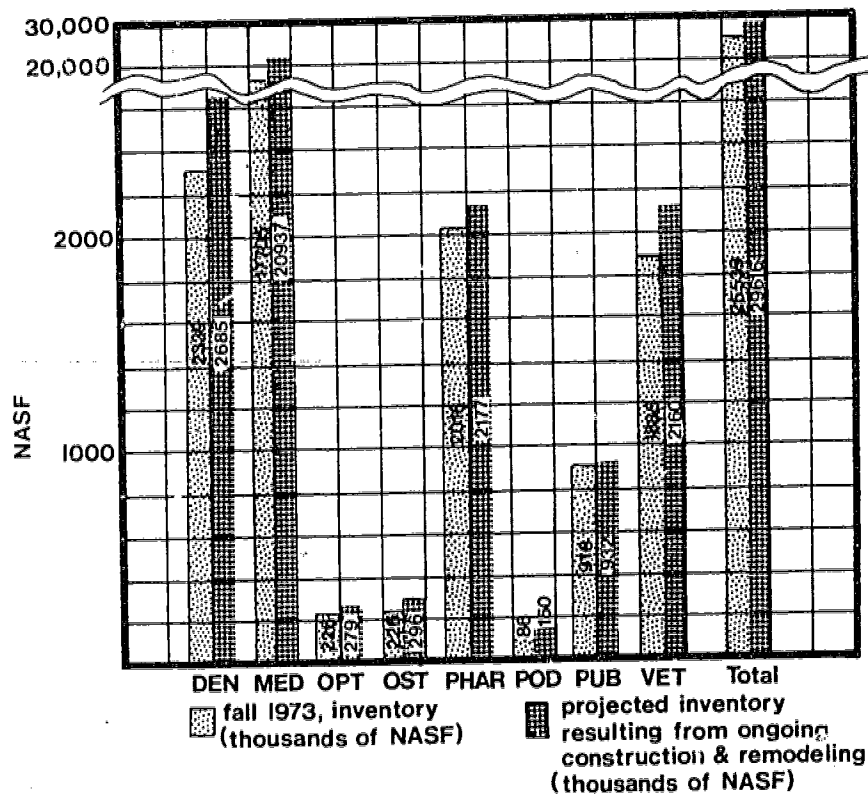
The ongoing construction and remodeling programs reported by respondents as of fall, 1973 were expected to be completed at various points in the time ranging from the end of 1973 to 1978. In an attempt to assess the changes concomitant to these construction programs, a concept called "the post construction period" has been defined. For a given school, the "post construction period" begins when the ongoing construction and remodeling program is completed. Respondents were asked to estimate the configuration of "allocated" facilities expected to constitute the post construction inventory, and were further requested to forecast the concomitant student population. Assuming no further change in these two variables, and assuming constancy in the myriad of other variables which could affect the educational process, we may assess such measures as classroom and class laboratory util-

ization, NASF per student by type of space, and so on, for that period of time (of indeterminate length) following the completion of construction and remodeling. For two schools whose construction programs end on different dates, the assumption of constancy for each implies that the "aggregate" post construction period begins at the time of completion of the construction program to be completed last. While it is understood that the above assumptions will most likely not hold true, the figures obtained do help forecast the trends that we may expect to see in various measures. Thus, for example, the forecasted increase of nearly 9,300 FTE undergraduate and graduate students between the current and post construction periods (discussed below) may not represent the actual increase which will be seen to have occurred at some future time (e.g., 1978): it does, however, yield a valuable order of magnitude estimate of the size and direction which we may expect undergraduate and graduate enrollment to take in the near-term.

b. The Post Construction Inventory and Student Population

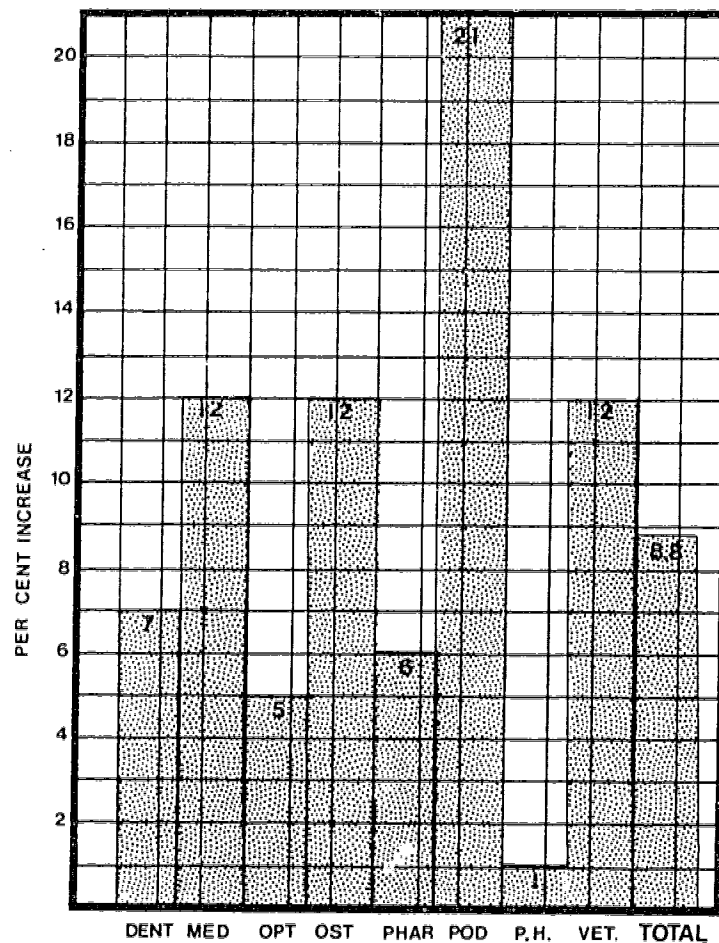
Ongoing construction and remodeling programs will add over 4.2 million NASF to the aggregate nonclinical facilities inventory allocated to the 239 respondents analyzed. This overall expansion of 16.6% over the fall, 1973 inventory is not consistently apportioned over the eight professions, as seen in Figure 2.III.D. Rather, schools of podiatry, which reported one of the lowest NASF per student figures as of fall, 1973, indicate a facilities expansion of 74.4% (from 86,000 to 150,000 NASF), while the 16,000 NASF expansion in public health schools' inventories represents an addition of only 1.7%.

FIGURE 2.III.D
COMPARISON OF FALL, 1973 NASF WITH NASF IN THE
"POST CONSTRUCTION" PERIOD



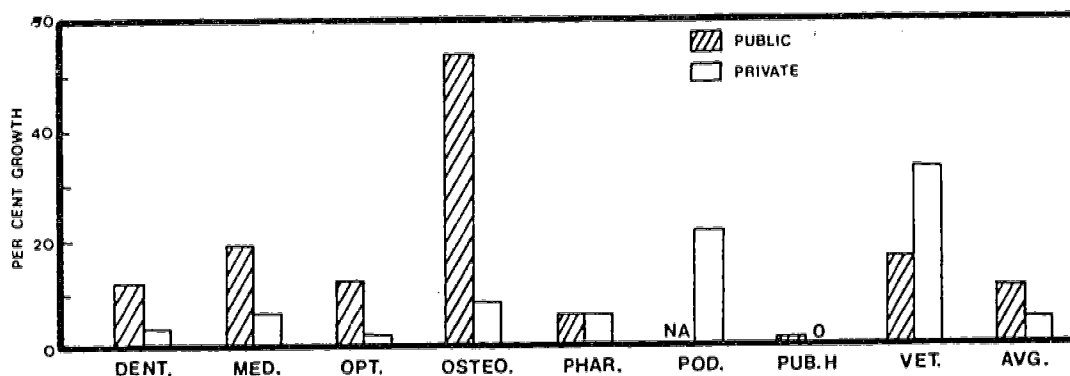
The enrollment increase noted in the previous section represents 8.8% of the fall, 1973 undergraduate and graduate health profession FTE enrollment. On a by-profession basis, this percentage increase is highly variable and is detailed in Figure 2.III.E.

FIGURE 2.III.E
HEALTH PROFESSIONS SCHOOLS' PROJECTED INCREASES IN
ENROLLMENT IN THE "POST CONSTRUCTION" PERIOD



By viewing the enrollment increases on the basis of control of school, it becomes apparent that the public sector is expected to grow at a much greater rate than is the private sector. The average percentage enrollment increase was 11% for respondents in the public sector, and only 5.5% for the private sector. This trend was very strongly evidenced for schools of dentistry, medicine, optometry, and osteopathy, with schools of veterinary medicine being the only schools whose figures represented a marked departure.

FIGURE 2.III.F
COMPARISON OF PUBLIC AND PRIVATE SECTOR GRADUATE AND UNDERGRADUATE FTE
ENROLLMENT GROWTH, PRE-CONSTRUCTION (FALL, 1973) TO POST-
CONSTRUCTION



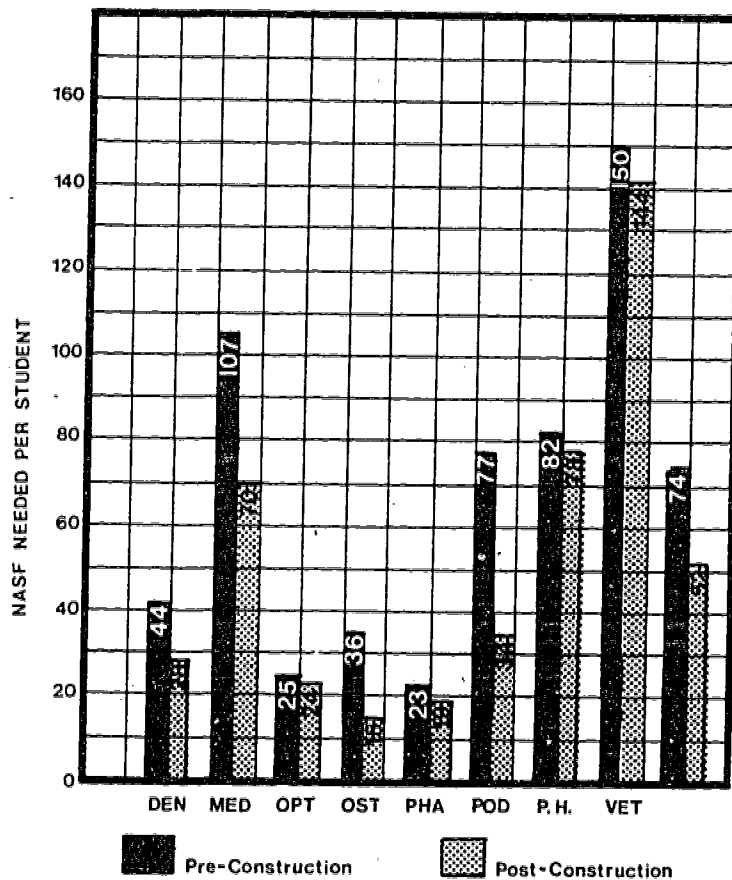
An interesting statistic, the "construction cost per added student" is obtained by summing (for those schools reporting a construction or remodeling program) the cost of the construction and remodeling, and dividing it by the difference between projected "post construction" enrollment and enrollment as of the survey date. (It must be noted here that schools which left the "post construction enrollment" column blank on the survey instrument would, it was assumed, not show any enrollment change between the survey date and the point in time at which the construction was completed). Measured in this manner, the average cost per additional health professions student was \$85,000. If we apply only that percentage of new construction associated with enrollment expansion and compute the costs on the same basis, then only 37% of the \$85,000 is applicable, or \$32,000.

c. Post Construction Needs

In parallel with questions asked the respondents regarding the need for facilities prior to the start of ongoing construction programs, a similar set of questions was asked regarding the need for facilities

following the completion of ongoing construction and remodeling. In all cases but one, the NASF needed on a by-health profession basis decreased. The one exception was that of the schools of veterinary medicine which reported that 43,000 more NASF would be needed than were needed prior to the new construction. This apparent inconsistency may be explained by the large percentage enrollment increase expected by these schools during the post construction period. In fact, as shown in Figure 2.III.G, the NASF needed per student did decrease for schools of veterinary medicine--as it did for all other professions.

FIGURE 2.III.G
COMPARISON OF PRE-CONSTRUCTION NASF NEEDED PER STUDENT WITH POST-CONSTRUCTION
NASF NEEDED



d. Requirements for Enrollment Growth

Respondents were asked to estimate the resource requirements for increases of 10% and 20% above the expected post-construction enrollment figures. The 152 respondents answering these questions indicated that a 10% enrollment increment (some 7,400 students) would require 4.4 million NASF of instructional facilities, over 3,300 additional full-time equivalent faculty, nearly 6,500 additional support staff, and \$77.6 million additional yearly operating funds. Moreover, approximately \$46 million would be required for the additional equipment associated with the increased educational activity. Although at first glance the by-profession figures seem to follow the same distribution as the number of schools reporting from each health profession, placing the projected need on a per incremental student basis yielded the fact that the "cost" per incremental student would vary greatly as a function of health profession. For example, the need for faculty per student averaged .45, ranging from a high of .71 faculty per added student (for schools of medicine) to .095 faculty per student for schools of pharmacy. Support staff per student exhibited the same tendency toward wide fluctuation. The overall reported average increase in operating funds per student was \$10,500 with schools of osteopathy reporting a \$16,460 per student increase.

The incremental increase in the post construction student population was not without its need for clinical facilities also. Schools of medicine, for example, indicated that an additional 1.37 teaching beds per student (4,700 beds) would be required, while schools of dentistry indicated the need for .68 additional (ambulatory) examining and treatment rooms per added student.

In answering the question regarding a 20% enrollment increase above the expected post construction enrollment, the 152 schools responding to this question indicated that the second 10% of enrollment increase would add to the resources required for the first 10% enrollment increase, but would represent a lesser increase on a per student basis. The overall incremental cost for the (added) 15,000 students would

be just over 7 million NASF of instructional facilities, approximately
• 4,900 additional FTE faculty, 8,200 support staff, \$106 million in
operating funds, and \$61 million in equipment.

B. ONGOING CONSTRUCTION AND REMODELING IN OWNED AND MAJOR AFFILIATED HOSPITALS AND CLINICS--FALL, 1973

The bulk of the 13.9 million GSF of ongoing construction in 64 hospitals and clinics was reported by schools of medicine (approximately 93%), as were 97% of the 2.9 million NSF of ongoing remodeling. Schools of osteopathy indicated only 217,000 GSF of overall activity. For all respondents, approximately 46% of the new construction was reportedly being built for the purposes of replacing obsolete space, while 20% of the space was being constructed for enrollment expansion, and an equivalent amount for overcrowding relief.

Of the total cost of the ongoing new construction and remodeling of patient care teaching facilities, some \$1.25 billion, about \$725 million were expended by or through schools of medicine. Contrary to the proportions of state and local funding and HPEA funding reported for nonclinical facilities, these two sources represented a total of only 39% for clinical facilities (as opposed to about 68% for non-clinical space). The HPEA construction grants represented just over 7% of the total expenditure, with state and local funding making up the remaining 32%. In the case of hospitals and clinics, it is obvious that borrowing represents a much more frequent source of funds for new construction: 34% were obtained through various lending agencies, as opposed to the 6% borrowed for "nonclinical" facilities construction. Private funds, philanthropic organizations, other federal sources, and miscellaneous sources each contributed between \$65 and \$100 million to the ongoing construction and remodeling activities reported.

C. ONGOING CONSTRUCTION AND REMODELING OF JOINT-USE FACILITIES

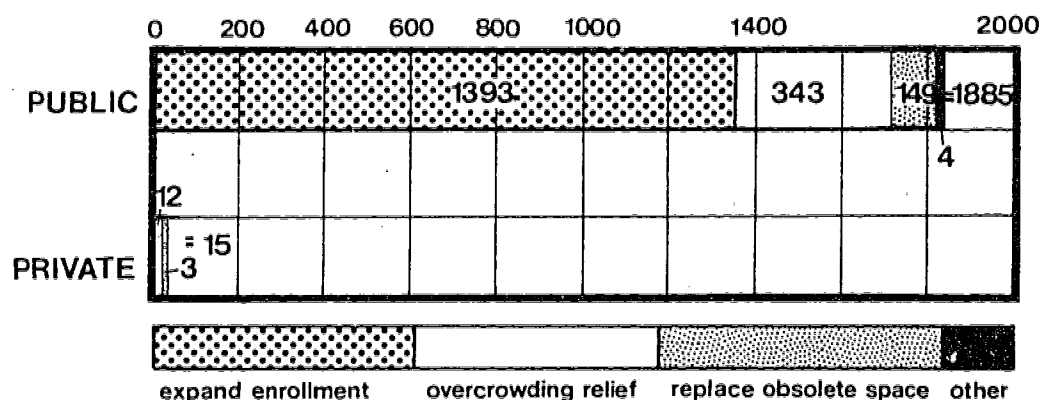
Of the 10 privately controlled "parent" institutions, only two reported ongoing construction of nonclinical joint-use facilities (15,000 Gross Square Feet); while of the 57 public institutions, 12 were constructing 1.9 million GSF as of the survey date. The total reported cost of the new construction was \$93.8 million, half of which was reported by a single institution.

Remodeling efforts underway as of the survey date involved 104,000 NASF at an average cost of \$20 per square foot. "Parent" institutions in the public sector were again slightly more active in this sphere on an absolute basis (1.18 vs. .9 million NASF) although, relatively speaking, the private "parent institutions" were more active in view of their far fewer numbers.

As illustrated in Figure 2.III.H, 80% of the construction in the private institutions was for the purposes of overcrowding relief, while 73% of the construction in public institutions was for purposes of expanding enrollment. As will be seen in the individual professions' analyses, these figures are representative of the much greater enrollment growth predicted for the public sector. Moreover, the privately controlled institutions tended to be concentrating more on replacement of obsolete facilities, keeping in mind that only 15,000 GSF were being constructed in the private sector as of the survey date.

FIGURE 2.III.H

PURPOSES OF NEW CONSTRUCTION OF JOINT-USE FACILITIES AS A FUNCTION OF CONTROL*



* Note: all figures are in thousands of GSF.

As has been noted, respondents indicated a total of nearly \$100 million being spent for ongoing construction and remodeling of joint-use facilities as of the survey date. The data indicate that most (74%) of the financing for joint-use space was from state and local sources.

Overall, the current construction program would increase the available joint-use space by approximately 10% from 7.2 million to 7.9 million NASF. Eighty percent of this space would be built in the public sector, thereby compensating to some degree for the disparity between the amount of allocated NASF per student in the public and private sectors as covered in the by-profession analysis (Part 3).

Although essentially no change will be apparent between the private sector's pre and post-construction inventories due to the scarcity of construction programs in that sector, an 11% expansion was reported in the joint-use inventory of the public sector. Most of this expansion is projected to be concentrated in auditoria, faculty offices, and animal facilities.

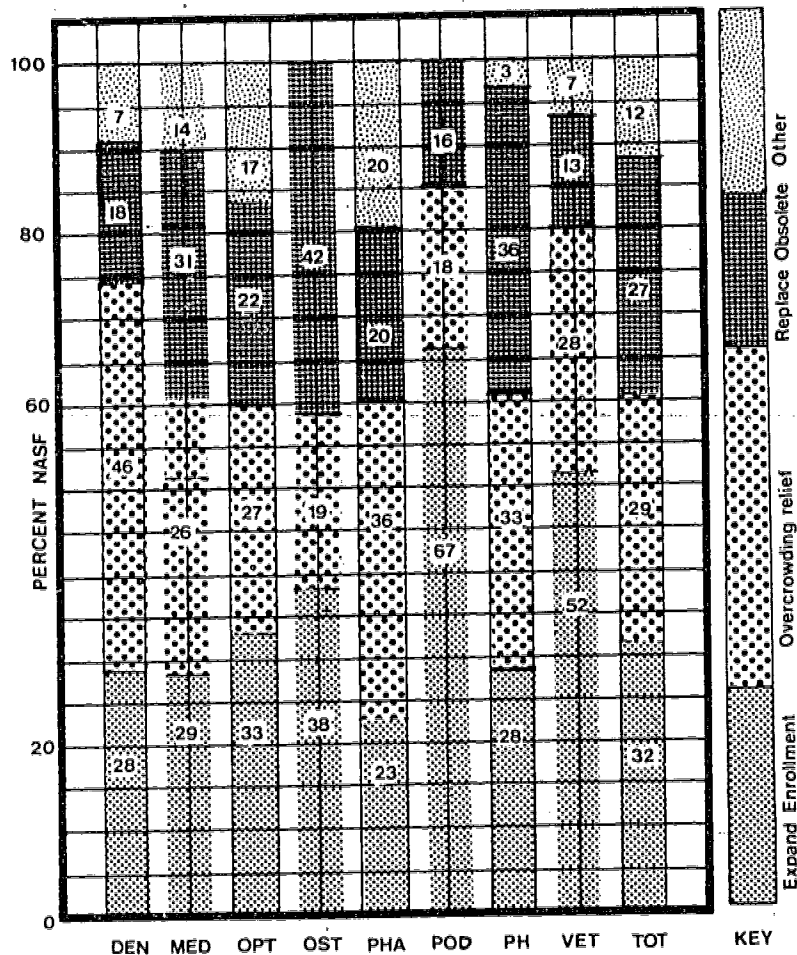
D. THE 1983 LOOK-AHEAD

1. Nonclinical Facilities Controlled by Respondents

It was anticipated by the 119 established schools responding to the relevant questions, that an additional 14.4 million NASF of "controlled" facilities (including "on-site patient care" and "other") would be constructed prior to 1983 at these schools over and above the facilities under construction in the fall of 1973. This represents a 37% increase over the comparable post-construction inventory of 39 million NASF.

It is found that the construction to be undertaken through 1983 (excluding ongoing programs) is similar in purpose to the ongoing construction programs reported. For example, while 32% of the GSF under construction in the fall of 1973 are for purposes of overcrowding relief, respondents estimated that 28% of the reported future construction would be for these same purposes. Also as previously noted, 25% of the future construction is attributed to replacement of obsolete facilities, in comparison with the 21% figure estimated by respondents for current construction programs. Overall, it appears that the coming decade will see construction and remodeling activities directed toward improving the balance between enrollment and the facilities inventory, as the effects of the high-flux period of the preceding decade become integrated into the educational system. As is seen in Figure 2.III.I, this trend toward integration and (to some degree) improvement does not hold for each profession. In particular, it is apparent that schools of veterinary medicine and podiatry anticipated a rapid growth cycle yet to come, with schools of veterinary medicine planning 52% of new construction for enrollment expansion purposes, and schools of podiatry indicating that approximately 67% of planned new construction would be for enrollment expansion.

FIGURE 2.III.I
PURPOSES OF PLANNED CONSTRUCTION OF ALLOCATED FACILITIES (THROUGH 1983)



Based on respondents' estimates for the post-construction period, the public sector will exhibit about double the enrollment expansion of the private sector. With the exception of medical schools, this difference in enrollment growth rate is expected to decrease during the coming decade, as reflected in respondents' reported construction purposes: the public sector indicated that 40% of their planned construction would be for the purpose of enrollment expansion; while private institutions (excluding medical schools) reported 29%. Medical schools in the public sector may be expected to continue to show a growth rate far outstripping that of their counterparts in the private sector (34% versus 19%).

Private schools, in anticipating that 37% of their planned construction will be for replacement purposes, imply vigorous pursuit of that which appears to be a chronic private sector problem: the need for replacement facilities. The public institutions estimate a corresponding figure of only 14%.

Five schools plan major geographic movement in the coming decade. All of them are currently in outer city locales. Two of these schools expect to relocate to innercity areas, two to suburban settings, and one anticipates relocating to a rural area. Nine other schools reported that they shall be moving into different facilities, without, however, leaving their current geographic location.

2. Clinical Facilities

Reported future construction plans for clinical facilities parallel those for nonclinical instruction facilities, and the kinds of patterns described above are evidenced again, although to a lesser degree. Of the nearly 14.3 million GSF of clinical teaching facilities planned for the coming decade (of which 12.1 million are reported by medical schools), 40% are for the replacement of obsolete space, with the remainder divided 24%, 20%, and 16% for expansion of enrollment, relief of overcrowding, and other purposes, respectively.

3. Enrollment Variation

Between the survey date and 1983, enrollment (headcount) is expected to grow by 28% from 107,243 to 137,254. The greatest relative student enrollment expansions are anticipated by those professions with the smallest enrollment: schools of osteopathy (61%) and podiatry (46%). Schools of medicine represent the largest absolute increase, with approximately 12,900 more students expected to appear in the headcount of 1983 than appeared in 1973 (46,030).

Enrollment growth by 1983 (over post-construction levels) is projected to be 20% in the public sector and 13% in the private sector. If schools of medicine are excluded, the public and private growth percentages both

become 20%, the best indication that the differing growth rates (between the sectors) are projected to come more into line with each other. For schools of medicine alone, the private sector reported only a 4.5% growth rate, while the publicly controlled schools showed nearly a 20% increase to a headcount of 38,281 by 1983.

It is interesting to compare the projected figures for facilities and enrollment expansion on the basis of "NASF per student". As may be seen in Table 2.III.1, seven of the eight health professions indicated that planned facilities expansion will more than keep pace with projected enrollment increases, thereby helping alleviate a portion of the overcrowding pressure which occurred in prior years. On the other hand, schools of public health appeared to be anticipating enrollments which do not appear to be met with corresponding plans for commensurately increasing the available educational facilities. From the detailed analysis of PART 3, we infer that the decrease in NASF per student anticipated by schools of public health is partially a function of movement toward facilities designed for smaller group teaching.

TABLE 2.III.1
NASF PER STUDENT--1973-1983

| | NASF PER STUDENT* 1973 | NASF PER STU- DENT "POST- CONSTRUCTION" | NASF PER STUDENT 1983 |
|---------------------|------------------------------|---|-----------------------------|
| Dentistry | 227 | 245 | 294 |
| Medicine | 497 | 515 | 615 |
| Optometry | 126 | 149 | 180 |
| Osteopathy | 314 | 349 | 504 |
| Pharmacy | 86 | 89 | 94 |
| Podiatry | 90 | 140 | 227 |
| Public Health | 267 | 270 | 210 |
| Veterinary Medicine | 399 | 403 | 512 |

* Each cell in the table is defined as:

Total NASF controlled by respondents (including "on-site patient-care" and "other") divided by headcount (undergraduate plus graduate) for the "point in time" represented by the column heading.

PART 3: INDIVIDUAL HEALTH PROFESSIONS ANALYSIS

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I. SCHOOLS OF DENTISTRY

A. INTRODUCTION

The need for a firm foundation in the basic sciences and the value of practical clinical experience point toward two major impacts upon the physical facilities configurations at schools of dentistry. On the one hand, the facilities must offer some manner of access to the variety of room types typically associated with higher educational pursuits, with, perhaps, a higher than average concentration on laboratory facilities. On the other hand, educational experience in the monitoring and control of dental disorders requires direct patient contact on the part of dental students. Such contact is realistically possible only if dental schools offer a service component among their activities. While to some degree, students' practical experience is obtained in the form of tutorship by private practitioners, the vast majority of clinical experience is obtained in university owned outpatient clinics.

Since it was not the concern of the current study to obtain square footage data on either inpatient or outpatient care facilities, such facilities are not an area of concentration in the analysis. However, in order to ease the reporting requirements, it was decided during the design of the survey instrument to allow respondents to report the square footage of such facilities if they were an integral part of an education complex. Review of the completed survey forms from dentistry schools indicates that approximately 28% of the facilities reported as "allocated to" dentistry schools are for ambulatory patient care purposes. This is a strikingly greater percentage than any of those evidenced by the other 7 professions surveyed.

The "off-site" clinical facilities utilized by schools of dentistry are essentially similar to the kinds of ambulatory care areas provided by "on-site" care. Inpatient facilities are seldom considered a major component in the teaching program. It should be noted, however, that the amount of nonclinical instruction facilities available (at these "off-site" clinical affiliates) represents a significant adjunct to those facilities commonly considered to

be under the schools' control. One of the reasons for this phenomenon is the fact that the most common pairing of health professions schools found in the survey is that of medicine/dentistry. The many similarities between, in particular, the basic biological sciences instruction required by both medical and dental students points toward efficiency in utilization of facilities given that a medical and a dental school can have access to a number of the same classrooms and class laboratories. The preponderance of such joint-usage is well reflected in the data.

In much the same way that medical schools are beginning to introduce clinical instruction earlier in the experience of medical students, a few schools of dentistry indicated that patient contact begins almost with the inception of the students' dental education program. Four of the respondent schools of dentistry were categorized as having a "revised" curriculum type, by virtue of the fact that during the first two years of instruction, the typical student spent less than 80% of his time in classrooms and class laboratories, and over 20% of his time in clinical areas.

As has previously been implied, not only is the nature of a given health profession's educational program a determinant of the types of facilities required for its pursuit, but the size of a given school (in terms of the number of students) may have an independent impact. To assess the latter, the 46 respondents ultimately used in the analysis were displayed on a histogram of FTE undergraduate and graduate enrollment, and divided into three size groups: small, 0-300 students; medium, 301-500 students; and large, above 500 students. These results, and a summary of the survey's response rate for schools of dentistry, are given in Table 3.I.1.

TABLE 3.1.1
DERIVATION OF DENTISTRY SCHOOLS' RESPONSE RATE

| SCHOOLS OF: DENTISTRY | NUMBER OF SCHOOLS IN UNIVERSE | NON-RESPONDENT | | | RESPON- DENTS (NO. 1 - NO.2) | NEW SCHOOLS RESPON- DING | ESTAB- LISHED RESPON- DENTS (#3-#4) | NON-SUB- STANTIVE FORMS ESTAB. SCHOOLS | RE- SPONSES USED IN ANALYSIS (#5-#6) | ANALYZED SCHOOLS AS A % OF ESTAB- LISHED UNIVERSE (7/(1-2a-4)) |
|--------------------------|---|----------------|-----------------------------|------------------------|---------------------------------------|-----------------------------------|---|--|--|--|
| | | NEW SCHOOLS | ESTAB- LISHED SCHOOLS | TOTAL (#2a+ #2b) | | | | | | |
| | #1 | #2a | #2b | #2c | #3 | #4 | #5 | #6 | #7 | #8 |
| TOTAL | 59 | 1 | 5 | 6 | 53 | 7 | 46 | 0 | 46 | 90 |
| Large | 16 | 0 | 1 | 1 | 15 | 0 | 15 | 0 | 15 | 94 |
| Medium | 20 | 0 | 2 | 2 | 18 | 0 | 18 | 0 | 18 | 90 |
| Small | 23 | 1 | 2 | 3 | 20 | 7 | 13 | 0 | 13 | 87 |
| Public | 36 | 1 | 3 | 4 | 32 | 6 | 26 | 0 | 26 | 90 |
| Private | 23 | 0 | 2 | 2 | 21 | 1 | 20 | 0 | 20 | 91 |
| Innercity | | | | | | | | | 20 | |
| Outercity | | | | | | | | | 20 | |
| Suburban | | | | | | | | | 6 | |
| Rural | | | | | | | | | 0 | |
| Classical | | | | | | | | | 42 | |
| Revised | | | | | | | | | 4 | |
| Northeast | 13 | 1 | 0 | 1 | 12 | 1 | 11 | 0 | 11 | 100 |
| Northcentral | 16 | 0 | 2 | 2 | 14 | 1 | 13 | 0 | 13 | 87 |
| South | 22 | 0 | 1 | 1 | 21 | 4 | 17 | 0 | 17 | 94 |
| West | 8 | 0 | 2 | 2 | 6 | 1 | 5 | 0 | 5 | 71 |

B. INVENTORY OF NONCLINICAL INSTRUCTION FACILITIES --FALL, 1973

1. Description of Facilities

Including "on-site patient care" and "other" facilities, the 46 degree-granting respondent schools of dentistry reported 4.2 million NASF (6.58 million GSF) of allocated facilities, 93% of which were owned (or leased on a very long-term basis), and the remaining 7% rented or leased. The 26 publicly controlled dentistry schools owned upwards of 95% of their nonclinical instruction facilities, while those in the private sector owned only 89% of their total inventory.

Unless otherwise noted, henceforth, those facilities categorized as "other" will be excluded from the analysis for purposes of comparability among the schools. Discussion of "on-site patient care" facilities will be left for the "clinical facilities" sections of this chapter, and will thus be excluded from the analysis of "nonclinical instruction facilities" with minor exceptions (see Table 3.I.2).

TABLE 3.I.2
OVERVIEW OF DENTISTRY SCHOOLS' ALLOCATED FACILITIES--FALL, 1973

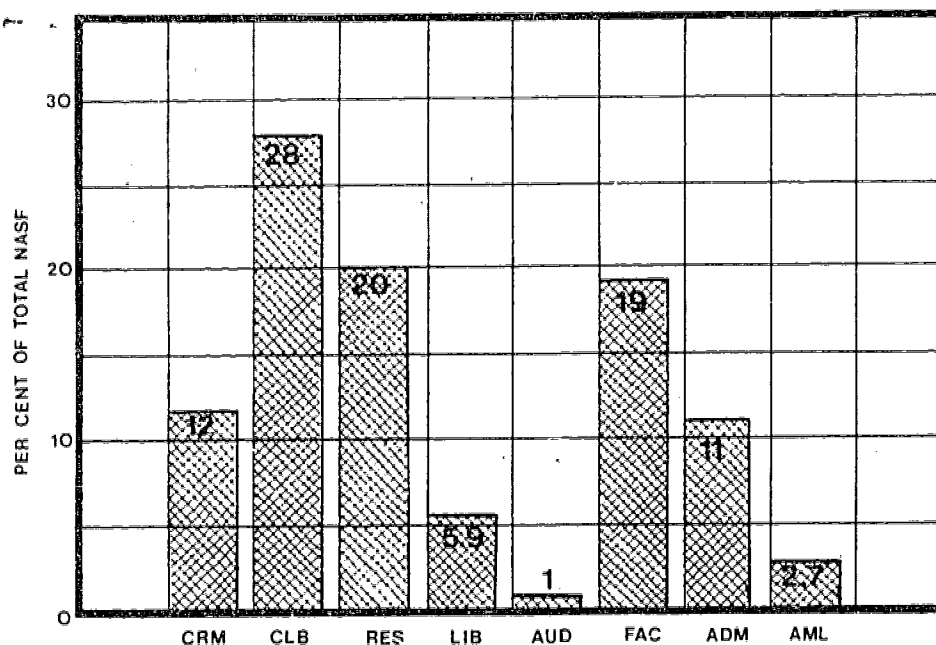
| | |
|---|-------|
| 1. Number of Schools | 46 |
| 2. Owned GSF* | 6,579 |
| 3. NASF Owned | 3,995 |
| 4. NASF Rented/Leased | 208 |
| 5. Total NASF | 4,203 |
| 6. Less NASF (owned or rented) of "On-Site Patient Care" and "Other" Facilities | 1,864 |
| 7. NASF of Nonclinical Instruction Space | 2,339 |

* All GSF and NASF figures are in thousands.

The largest reported inventory, all of it "owned" by the respondent, was 141,000 NASF, and the mean size was 51,000 NASF. Size appears to be related to both "control" and "locale", with observable variation from the mean appearing as the schools are so grouped. Thus, while the "average" publicly controlled school reported 55.3 thousand NASF, its counterpart in the private sector indicated 45.1 thousand NASF of "allocated" space. Similarly, the respective average configuration sizes for the 20 innercity, 20 outercity, and 6 suburban schools were 58, 47, and 41 thousand NASF.

Dentistry schools' "space distribution profile" (the percentages of "classroom", "class laboratory", etc.) were with a few exceptions, fairly constant over the categorizations of schools used in the analysis. Figure 3.I.A gives these percentages for the 45 dentistry schools which reported controlling some amount of space.

FIGURE 3.I.A
DENTISTRY SCHOOLS' DISTRIBUTION PROFILE OF NONCLINICAL INSTRUCTION FACILITIES



Two departures from the consistency of the space profile by the various categories of schools appear to be the greater relative availability of library space in the private schools (10.5%) than in the public schools (2.9%); and a 15.4% versus 10.2% classroom distribution over the two respective sectors. Since these are two space-types among those which are most general purpose in nature, it is assumed that the schools in the public sector shared facilities which were centrally administered by a "parent institution" as defined in the prelude to the analysis in PART 2.

A third departure from the consistent space distribution profile relates to size of school. Viewed in the aggregate for each size group, the average percentage of faculty office space increases as school size decreases: specifically, 16, 20, and 23% of each group's inventory (for large, medium, small) is attributed to faculty offices.

For the purposes of the analysis of respondent dentistry schools, it should be recalled that the "revised" curriculum, exhibited by only four of the 46 respondents, was defined to be one which involved less than 80% of the student's time (during the first two years) in classroom/classlab areas versus clinical areas. It was found that the four "revised" schools reported 25% less classroom space and 22% more administrative office space as percentages of their "allocated" nonclinical instruction facilities than did schools with "classical" curricula.

Table 3.I.3 contains the dental schools' aggregate response to the questions concerning square footage per room and student station.

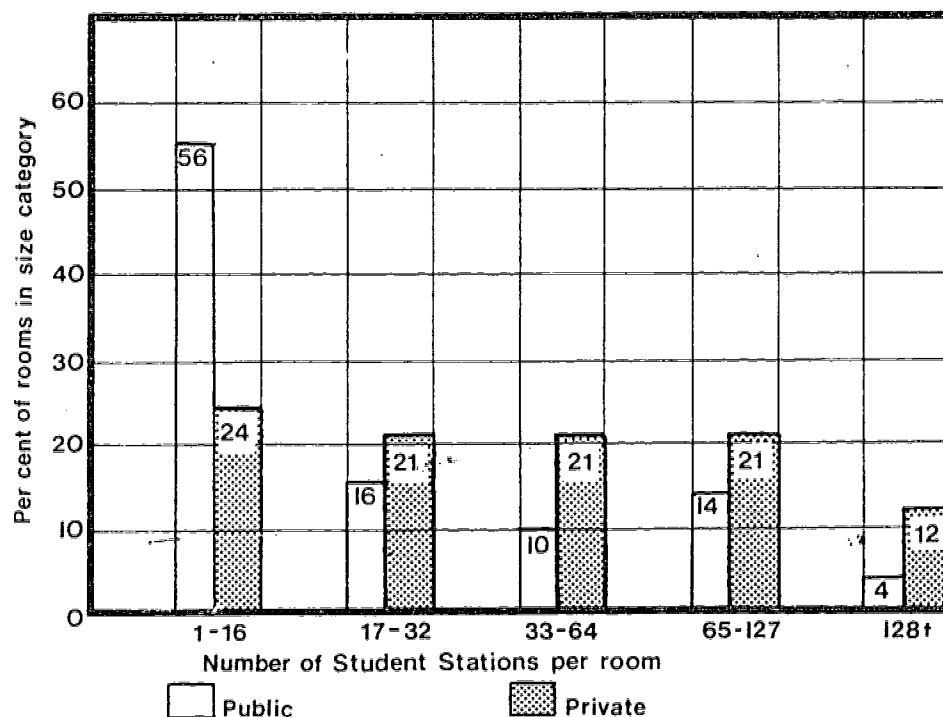
TABLE 3.I.3
MEAN NASF PER ROOM AND STUDENT STATION FOR DENTISTRY SCHOOLS'
NONCLINICAL INSTRUCTION FACILITIES--FALL, 1973

| | NUMBER OF NASF (000) | NUMBER OF ROOMS | NUMBER OF STUDENT STATIONS | NASF* PER ROOM | NASF* PER STATION | STATIONS PER ROOM |
|----------------------|-------------------------------|-----------------------|-------------------------------------|----------------------|-------------------------|-------------------------|
| Classroom | 285 | 412 | 18,952 | 693 | 15 | 46 |
| Class Laboratory | 659 | 514 | 15,981 | 1,282 | 41 | 31 |
| Res. & Res. Training | 473 | 1,529 | 1,542 | 301 | 184 | 2 |
| Library | 137 | -- | 1,953 | -- | 70 | -- |
| Auditorium | 21 | 5 | 2,091 | 4,200 | 10 | 420 |
| Faculty Offices | 443 | 3,011 | -- | 142 | -- | -- |
| Administrative Areas | 252 | -- | -- | -- | -- | -- |
| Animal Facilities | 64 | -- | -- | -- | -- | -- |

* Computation was performed for only those cases in which both the square footage and room (or student station) data were reported.

Dental schools' distribution of classroom and class laboratory capacities appears to be heavily weighted toward the smaller size categories for the publicly controlled schools, while the privately controlled schools reported essentially equivalent numbers of rooms for all size categories except the largest. This difference is detailed in Figure 3.I.B in which the number of classrooms and class laboratories have been added together for brevity of presentation.

FIGURE 3.I.B
DISTRIBUTION OF SIZES OF CLASSROOMS AND CLASS LABORATORIES,
FALL, 1973



2. The Student Population Using the Current Inventory

The 46 responding schools of dentistry indicated that the total FTE enrollment as of the fall of 1973 was 18,410, nine percent of whom were enrolled for degrees beyond the first professional degree. Just over half of the students (53%) were attending publicly controlled schools, with the remaining 47% in the private sector: Over 90% of the nation's dental school students are located in innercity and outercity settings, and no dental school reported itself as located in a rural locale (see Table 3.I.4).

TABLE 3.I.4
DENTAL SCHOOLS' FTE ENROLLMENT--FALL, 1973

| | NUMBER OF SCHOOLS | TOTAL FTE ENROLLMENT | FTE UNDER- GRADUATE | FTE GRADUATE | FTE PER SCHOOL |
|-------------------|-------------------------|-------------------------|------------------------|-----------------|-------------------|
| TOTAL | 46 | 18,410 | 16,762 | 1,648 | 400 |
| Size of School | | | | | |
| Large | 15 | 8,724 | 7,893 | 831 | 582 |
| Medium | 18 | 6,935 | 6,448 | 487 | 385 |
| Small | 13 | 2,751 | 2,421 | 330 | 212 |
| Control | | | | | |
| Public | 26 | 9,795 | 8,972 | 823 | 377 |
| Private | 20 | 8,615 | 7,790 | 825 | 431 |
| Geographic Locale | | | | | |
| Innecity | 20 | 9,570 | 8,766 | 804 | 479 |
| Outercity | 20 | 6,894 | 6,235 | 659 | 345 |
| Suburban | 6 | 1,946 | 1,761 | 185 | 324 |
| Rural | 0 | 0 | 0 | 0 | 0 |
| Curriculum Type | | | | | |
| Classical | 42 | 16,798 | 15,244 | 1,554 | 400 |
| Revised | 4 | 1,612 | 1,518 | 94 | 403 |
| Census Region | | | | | |
| Northeast | 11 | 4,445 | 3,949 | 496 | 404 |
| Northcentral | 13 | 5,955 | 5,375 | 580 | 458 |
| South | 17 | 5,926 | 5,490 | 436 | 349 |
| West | 5 | 2,084 | 1,948 | 136 | 417 |

3. Adequacy of the Inventory

a. Condition of Space

Just over 82% of the 2.34 million NASF of dental schools' nonclinical facilities were reported to be "satisfactory for program purposes". Of the remaining 18% (419,000 NASF), over 190,000 were perceived as needing replacement (prior to the effects of current construction programs) and 230,000 needed remodeling (see Table 3.I.5).

TABLE 3.1.5
CONDITION OF DENTAL SCHOOLS' NONCLINICAL INSTRUCTION
FACILITIES--FALL, 1973

| | NUMBER OF SCHOOLS | TOTAL NASF (000) | SATISFACTORY | | NEEDS REMODELING | | NEEDS REPLACEMENT | |
|-------------------|-------------------------|------------------------|--------------|----|------------------|----|----------------------|----|
| | | | NASF (000) | % | NASF (000) | % | NASF (000) | % |
| TOTAL | 45 | 2,339 | 1,920 | 82 | 229 | 10 | 190 | 8 |
| Size of School | | | | | | | | |
| Large | 15 | 975 | 785 | 81 | 84 | 8 | 106 | 11 |
| Medium | 18 | 870 | 707 | 81 | 140 | 16 | 23 | 3 |
| Small | 13 | 494 | 428 | 87 | 5 | 1 | 61 | 12 |
| Control | | | | | | | | |
| Public | 26 | 1,437 | 1,277 | 89 | 104 | 7 | 56 | 4 |
| Private | 20 | 902 | 643 | 71 | 125 | 14 | 134 | 15 |
| Geographic Locale | | | | | | | | |
| Innecity | 20 | 1,159 | 978 | 84 | 104 | 9 | 177 | 7 |
| Outercity | 20 | 931 | 710 | 76 | 108 | 12 | 113 | 12 |
| Suburban | 6 | 249 | 232 | 93 | 17 | 7 | 0 | 0 |
| Rural | 0 | 0 | -- | -- | -- | -- | -- | -- |
| Curriculum Type | | | | | | | | |
| Classical | 42 | 2,114 | 1,765 | 83 | 205 | 10 | 144 | 7 |
| Revised | 4 | 225 | 155 | 69 | 24 | 11 | 46 | 20 |
| Census Region | | | | | | | | |
| Northeast | 11 | 494 | 354 | 72 | 42 | 8 | 98 | 20 |
| Northcentral | 13 | 648 | 539 | 83 | 46 | 7 | 63 | 10 |
| South | 17 | 951 | 826 | 87 | 93 | 10 | 27 | 3 |
| West | 5 | 246 | 201 | 82 | 43 | 17 | 2 | 1 |

The portion of satisfactory space was found to decrease only slightly with increasing FTE student enrollment, with small and large schools representing the bulk (88%) of the replacement need. When the respondent population was divided according to "locale of school" the portion of space reported as "unsatisfactory" was largest for outercity schools (24%). This space (220,000 NASF) is split almost evenly between "needing remodeling" and "needing replacement".

The publicly controlled schools reported proportionally much more satisfactory space (89%) than did the private schools (71%). Thus, as apparent from Table 3.1.5, even though 61% of the inventory of non-clinical instruction facilities was controlled by the public sector, the number of NASF needing remodeling or replacement was much greater for the private sector.

The problem of unsatisfactory condition was spread over most room-types that constituted the nonclinical instruction facilities of the private dental schools. On the lower side, classrooms, class laboratories, and faculty office space ranged between 67% and 70% satisfactory. The room-type exhibiting the highest satisfactory percentages were animal facilities (83%) and the five reported auditoria (100%).

The percentage of space reported as unsatisfactory by the five schools in the Western census region (72%) was quite high. In particular, library facilities were considered to be only "30% satisfactory". The survey instrument did not pursue the specifics underlying respondents' perceptions of the condition of space.

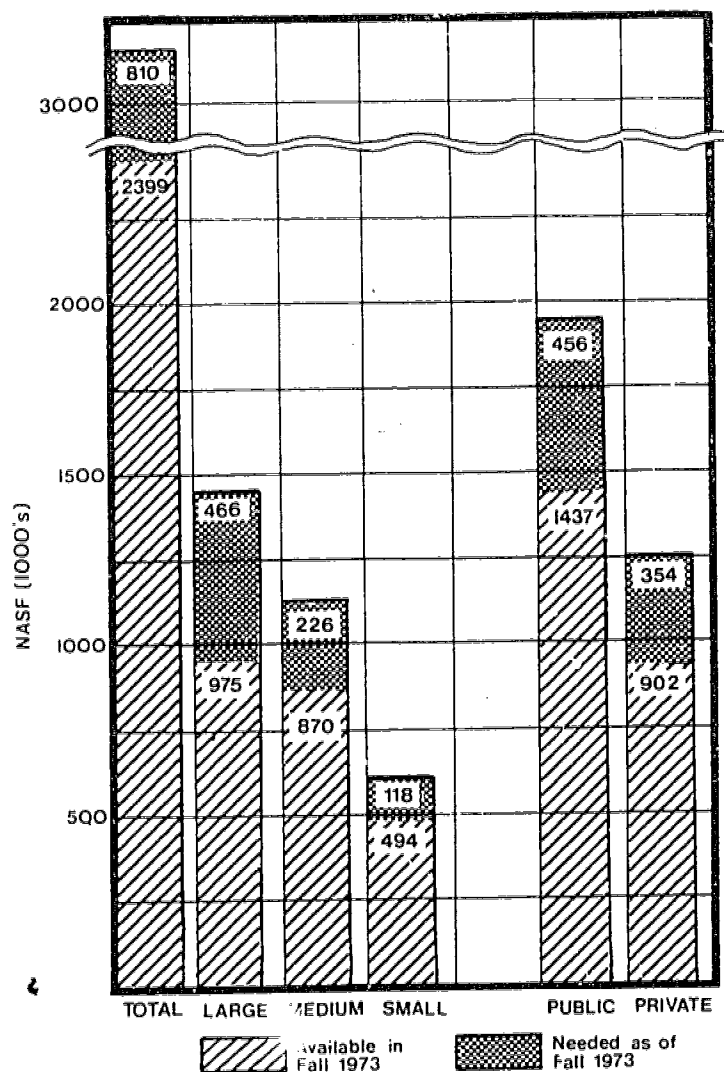
b. Need for Nonclinical Facilities as of Fall, 1973

While some portion of the facilities need which existed as of the survey date will be reduced by the ongoing construction programs of respondents, the schools' perceptions of the then-existing needs for space were based upon experience rather than projection. As a result, these perceptions give us our most accurate insights into the sizes of facilities configurations felt to be necessary for satisfactorily accommodating the then existing enrollment levels.

In all, 33 dental schools perceived a need for 810,000 additional NASF of nonclinical instruction facilities, 459,000 NASF engendered by overcrowding. This need, nearly 35% when expressed as a portion of the current inventory, is almost 48% for the large schools' and approximately 25% for medium and smaller schools. Furthermore, on the same basis (percent of current inventory), schools of the northeastern census region

envisioned a need for 51% additional space, with the remaining three regions varying between 16 and 39%.

FIGURE 3.I.C
DENTAL SCHOOLS' PERCEIVED FACILITIES NEEDS AS OF FALL, 1973



When these needs are analyzed on a per-student basis, the desired changes in certain room-types become quite large. Thus, it is desired that animal facilities be doubled (primarily in the large, and publicly controlled

schools); that classroom space per student be increased by 40% from 15 to 21 NASF per student, and that auditorium facilities, none of which were allocated to large schools in the Fall of 1973 be brought to 6 NASF per student. Moreover, schools in the public sector perceived a need for doubling their available library space per FTE student (nearly matched by the private schools), while the privately controlled schools seemed to show their most substantial need to be that for auditoria (bringing that room-type from 1 to 9 NASF per student).

Forty of the 46 responding dentistry schools reported various other needs (as constrained by the survey instrument) for satisfactory accommodation of their Fall, 1973 enrollment. Most often mentioned (39 schools) were the needs for additional faculty and support staff (1,670 and 1,475, respectively) with over 2/3 of the faculty required at the large schools. The second most frequently mentioned need was that for additional operating funds (exclusive of the faculty salaries to support the needed faculty), totalling nearly \$30 million per year. Associated with the need for new faculty, 31 schools reported an aggregate need for .19 million NASF of faculty office space. Nearly 1,300 examining and treatment rooms were perceived as needed by 21 of the 40 respondents to the relevant question (see Table 3.I.6).

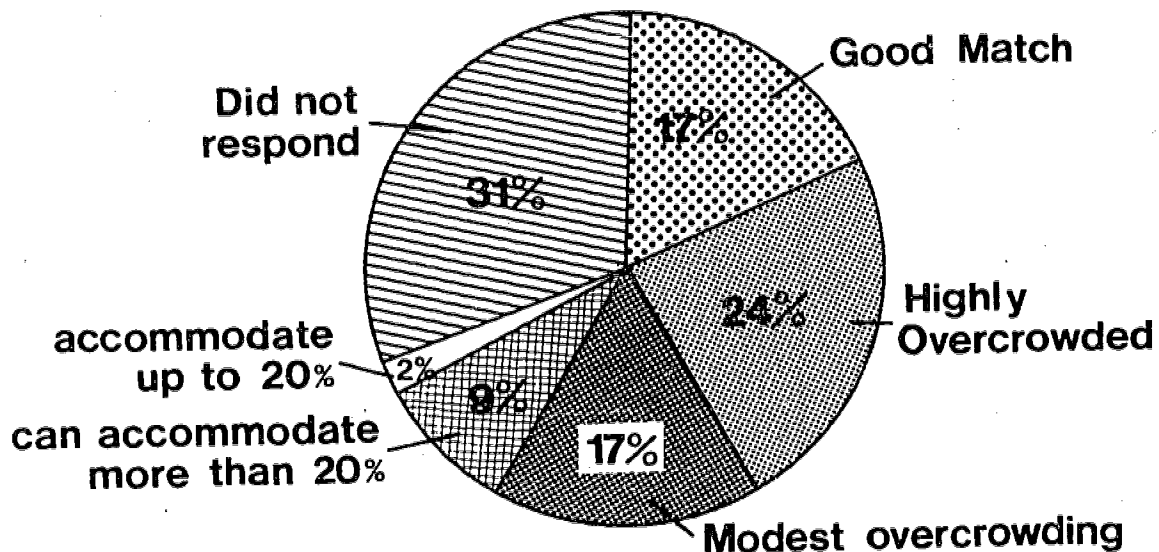
TABLE 3.I.6
DENTAL SCHOOLS' NON-FACILITIES NEEDS TO ACCOMMODATE
FALL, 1973 ENROLLMENT

| | NUMBER OF SCHOOLS ANSWERING QUESTION | FTE FACULTY | FTE SUPPORT STAFF | OPERATING FUNDS (\$000) | FUNDS FOR EQUIPMENT (\$000) |
|----------------------------------|---|----------------|-------------------------|-------------------------------|-----------------------------------|
| Number of Schools With a Need | 40 | 39 | 39 | 24 | 27 |
| TOTAL | 40 | 1,667 | 1,475 | 29,308 | 16,270 |
| Size of School | | | | | |
| Large | 14 | 1,123 | 762 | 15,522 | 8,546 |
| Medium | 17 | 374 | 482 | 10,401 | 7,614 |
| Small | 9 | 170 | 231 | 3,385 | 110 |
| Control | | | | | |
| Public | 23 | 758 | 940 | 19,843 | 6,514 |
| Private | 17 | 909 | 535 | 9,465 | 9,756 |
| Geographic Locale | | | | | |
| Innecity | 15 | 1,162 | 798 | 17,553 | 11,604 |
| Outercity | 19 | 334 | 517 | 9,181 | 4,324 |
| Suburban | 6 | 171 | 160 | 2,574 | 342 |

c. Library Facilities Adequacy

Eight of the 32 respondents who answered the question concerning "enrollment versus library capacity" indicated that a "good match" existed between available library space (including joint-use facilities) and enrollment as of the survey date. Five indicated either that "up to 20% additional enrollment could be accommodated", or that "over 20% additional enrollment would not adversely impact the use of the library".

FIGURE 3.I.D
DENTAL SCHOOLS' PERCEIVED MATCH BETWEEN LIBRARY CAPACITY
AND ENROLLMENT--FALL, 1973



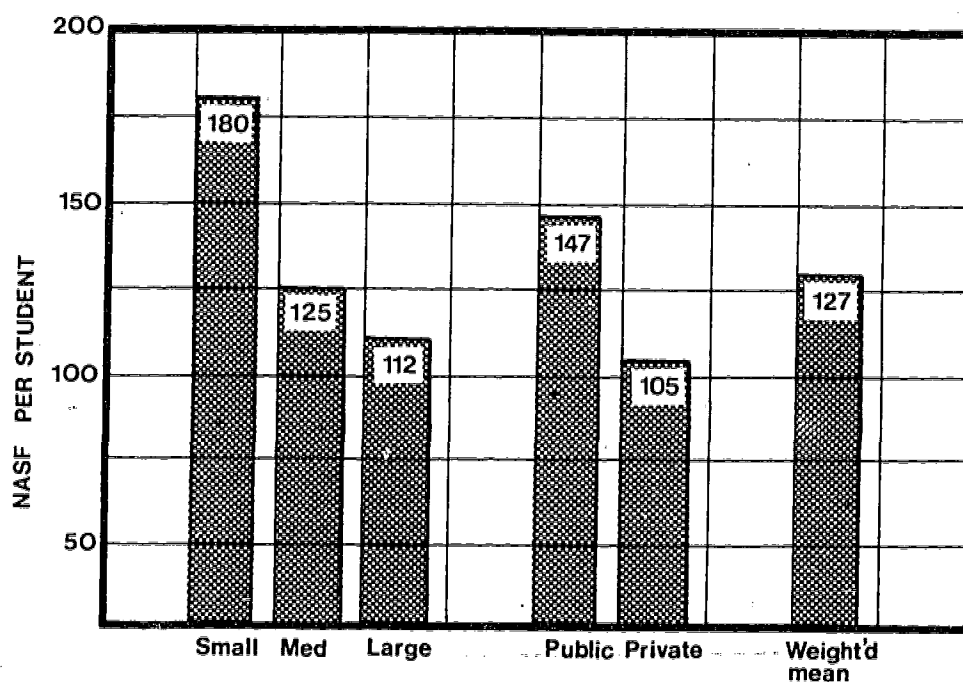
On the other hand, nineteen of the respondents indicated either "modestly" or "highly" overcrowded conditions in library space, with about equal frequency. The latter figures, on a percentage basis, held relatively constant as a function of size and control of school. It might be noted in passing that of the 3 schools of the Western census region responding to the question, all of them reported either modest or heavy overcrowding. This fact ties well with Western dental schools' indication that only 30% of their library facilities were satisfactory from the point of view of physical condition and configuration vis a vis programmatic needs.

4. Resource Usage

a. Space and Stations Available per Student

Respondents indicated an average NASF per student figure of 127, ranging as high as 691. Just over 15% of the allocated nonclinical instruction facilities were used predominantly for graduate-level instruction. Space per student tended to vary with size and control of school, as is apparent from Figure 3.I.E.

FIGURE 3.I.E
EFFECT OF SIZE AND CONTROL ON NASF PER STUDENT



The relationships noted in Figure 3.I.E remained reasonably constant for each of the eight room types under consideration. One major exception was that of library space, as reflected by a larger figure for private schools (11 NASF per student) than for public schools (4 NASF per student). This reversal may be assumed to be due to the more probable access

of public schools to joint-use space, of which library space is a typical example. The lesser access of private schools to such space would imply the need for these schools to control an entire library, since they would more likely be "stand-alone" institutions.

When the respondents were grouped according to "locale" and curriculum type, the NASF per student figures tended to hold constant on a room-type basis. Table 3.I.5 details the NASF per student figures reported by the 46 respondents.

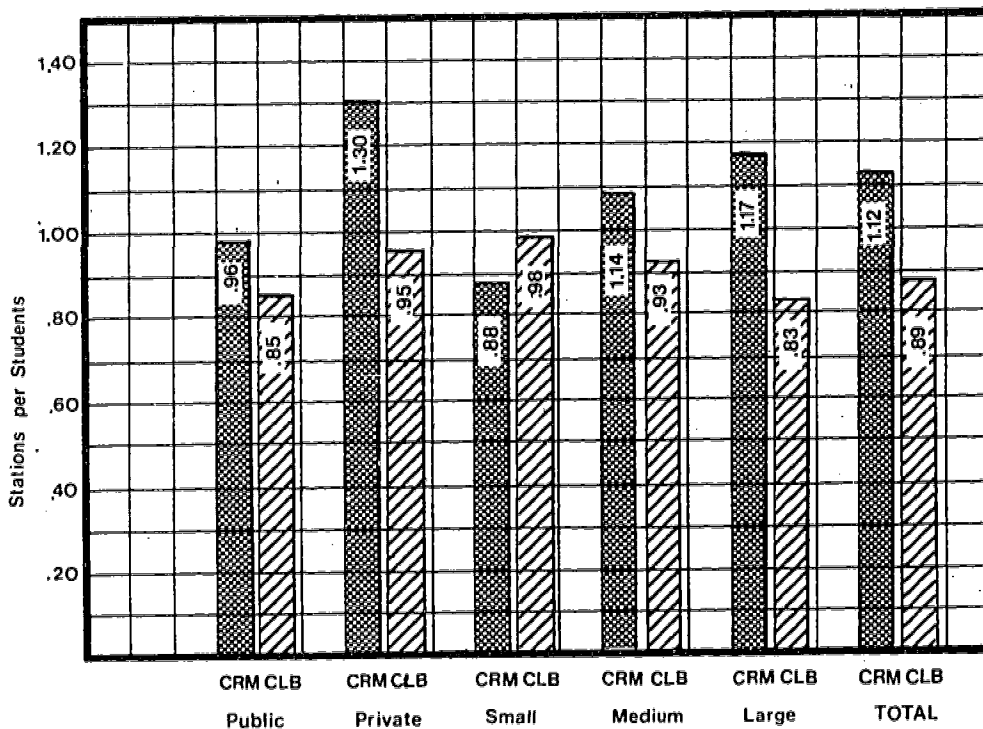
TABLE 3.I.7
NASF PER STUDENT OF ALLOCATED, NONCLINICAL INSTRUCTION
FACILITIES, FALL, 1973

| | TOTAL | CLASSROOMS | CLASS LABORATORIES | RESEARCH SPACE | LIBRARY SPACE | AUDITORIA | FACULTY OFFICES | ADMINISTRATIVE OFFICES | ANIMAL FACILITIES |
|-------------------|-------|------------|-----------------------|-------------------|------------------|-----------|--------------------|---------------------------|----------------------|
| TOTAL/AVERAGE | 127 | 15 | 36 | 26 | 7 | 1 | 24 | 14 | 3 |
| Size of School | | | | | | | | | |
| Large | 112 | 15 | 30 | 25 | 5 | 0 | 18 | 14 | 4 |
| Medium | 125 | 17 | 38 | 20 | 11 | 1 | 25 | 11 | 3 |
| Small | 180 | 13 | 48 | 41 | 8 | 3 | 42 | 20 | 4 |
| Control | | | | | | | | | |
| Public | 147 | 15 | 42 | 32 | 4 | 2 | 31 | 17 | 4 |
| Private | 105 | 16 | 29 | 19 | 11 | 1 | 16 | 10 | 3 |
| Geographic Locale | | | | | | | | | |
| Innecity | 121 | 15 | 35 | 25 | 4 | 0 | 24 | 16 | 3 |
| Outercity | 135 | 15 | 38 | 27 | 13 | 2 | 25 | 11 | 4 |
| Suburban | 128 | 16 | 35 | 28 | 5 | 3 | 24 | 13 | 3 |
| Curriculum Type | | | | | | | | | |
| Classical | 126 | 16 | 35 | 25 | 8 | 1 | 24 | 13 | 4 |
| Revised | 140 | 13 | 42 | 35 | 2 | 0 | 27 | 18 | 2 |

Classroom stations per student averaged 1.12, with a high of 2.03 and a low of .27. Four schools reported having no classrooms under their day-to-day control, relying entirely on joint-use space for classroom instruction. Classroom stations per student figures tended to decrease as schools decreased in size, while in line with a previous comment regarding the lesser availability of "joint-use" space within the private sector, private schools reported a much higher "allocated" stations per student average (1.30) than schools of the public sector (.96).

The same relationship is not shown for class laboratories, for which only a 10% difference exists between the public and private sectors' ratios of stations per student.

FIGURE 3.1.F
CONTRAST IN PATTERNS OF STATIONS PER STUDENT IN CLASSROOMS
AND CLASS LABORATORIES



Dental schools controlled fewer classroom stations than were available to them on a joint-use basis (16,900 versus 18,600). As seen in Table 3.1.8, as a percentage of the schools' "allocated" classroom stations, the number of jointly-used stations increased dramatically as school size decreased. The value for small schools is so large that it is tempting to conclude that, as some function of their nature, small schools tend toward joint-usage of classrooms. We do not so conclude, since small, public schools of dentistry are very often paired with schools of medicine and thus have greater relative access to joint-use classroom facilities. This point is well-supported by the data, with 11.7 thousand joint-use versus 6.9 thousand controlled stations being available to schools of the public and private sectors, respectively (133% versus 85%). Moreover, there were 30 campuses on which "parent institutions" offered joint-use space to paired schools of medicine and dentistry, and 22 of the 30 are publicly controlled.

TABLE 3.1.8
JOINT-USE AUGMENTATION OF DENTAL SCHOOLS' CONTROLLED
CLASSROOM AND LABORATORY STUDENT STATIONS

| | CLASSROOMS | | | | CLASS LABORATORIES | | | |
|-------------------|----------------------------------|--|---------------------------------|---|---------------------------------|--|---------------------------------|---|
| | JOINT- USE STATIONS (1) | (1) AS % OF ALLO- CATED STATIONS (2) | JOINTLY USED ROOMS (3) | (3) AS % OF ALLO- CATED ROOMS (4) | JOINT USE STATIONS (5) | (5) AS % OF ALLO- CATED STATIONS (6) | JOINTLY USED ROOMS (7) | (7) AS % OF ALLO- CATED ROOMS (8) |
| TOTAL | 18,566 | 110 | 234 | 59 | 9,954 | 62 | 236 | 49 |
| Size of School | | | | | | | | |
| Large | 3,951 | 52 | 54 | 36 | 2,847 | 42 | 76 | 43 |
| Medium | 7,470 | 102 | 65 | 34 | 4,368 | 68 | 95 | 42 |
| Small | 7,145 | 312 | 115 | 205 | 2,739 | 101 | 65 | 76 |
| Control | | | | | | | | |
| Public | 11,691 | 133 | 135 | 63 | 6,498 | 78 | 144 | 45 |
| Private | 6,875 | 85 | 99 | 54 | 3,456 | 45 | 92 | 55 |
| Geographic Locale | | | | | | | | |
| Innecity | 7,384 | 87 | 100 | 52 | 3,589 | 44 | 69 | 27 |
| Outercity | 8,307 | 124 | 98 | 62 | 4,395 | 73 | 113 | 61 |
| Suburban | 2,875 | 170 | 36 | 72 | 1,970 | 107 | 54 | 126 |

Joint-use class laboratory stations, less general purpose in nature than classroom stations, nevertheless represented a significant proportion of respondents' available facilities. Overall, joint-use class laboratory stations represented a 62% addition to respondents' "allocated" class laboratory stations, with schools of the public sector exhibiting a 78% addition, and those of the private sector reporting 45%.

b. Usage of Classrooms

Recalling from PART 1 that comparative analysis was our purpose in assessing room and student station utilization, and by way of introduction to this section, we note that a simplified utilization formula is given by:

$$\frac{\text{resource hours used}}{\text{resource hours available}} \times 100 = \% \text{ resource utilization,}$$

whether that resource is student stations or rooms. Appendix G should be consulted for the details of the method, in particular, the impact of using a 2,080 hour year rather than an "academic" year for comparability purposes.

Thirty-two percent of respondents' classroom space was primarily devoted to instruction in the basic biological sciences, with 54% of the space devoted to instruction in the clinical sciences, and the remaining 15% of mixed usage. With minor deviations, these proportions held regardless of the grouping of respondents.

As may be seen in summary Table 3.I.9, the average classroom was used 505 hours out of the academic year. Publicly controlled schools averaged 491 hours per classroom (per year), while schools in the private sector averaged 522 hours per year. Classroom usage tended to increase as locale of school varied from suburban to innercity locales, a pattern of increase which held for each room-size category defined by the instrument. Also, except for the case of the "1 - 16 station" size, the revised curriculum schools tended to utilize their classrooms more than did those schools categorized as offering "classical" curricula.

TABLE 3.I.9
DENTAL SCHOOLS' CLASSROOM USAGE--FALL, 1973

| | NUMBER OF SCHOOLS | NUMBER OF ROOMS | TOTAL HOURS USAGE PER YEAR (000) | MEAN HOURS USAGE PER ROOM PER YEAR | PERCENT ROOM UTILIZATION |
|-------------------|-------------------------|-----------------------|--|---|--------------------------------|
| TOTAL | 42 | 400 | 202 | 505 | 26 |
| Size of School | | | | | |
| Large | 12 | 152 | 71 | 467 | 28 |
| Medium | 18 | 192 | 104 | 542 | 23 |
| Small | 12 | 56 | 27 | 485 | 25 |
| Control | | | | | |
| Public | 23 | 216 | 106 | 491 | 25 |
| Private | 19 | 184 | 96 | 522 | 28 |
| Geographic Locale | | | | | |
| Innercity | 18 | 192 | 105 | 545 | 27 |
| Outercity | 18 | 158 | 78 | 497 | 26 |
| Suburban | 6 | 50 | 19 | 377 | 21 |
| Rural | 0 | -- | -- | -- | -- |
| Curriculum Type | | | | | |
| Classical | 39 | 377 | 187 | 496 | 26 |
| Revised | 3 | 23 | 15 | 656 | 32 |

Room utilization, the portion of the available "room hours" that are used during a 2,080 hour year, averaged 26% for the classrooms of the 42 respondent schools of dentistry for whom data were complete. Public and private schools were slightly below and above the mean, respectively, while schools considered to have a "revised" curriculum reported slightly greater (32%) utilization than the "classical" schools (26%). As noted from the analysis of average hours per room per year, the percentage of room utilization decreases as we move from innercity through suburban locales.

Classroom student station utilization figures averaged 18%, ranging from 5 to 103%. Schools in the public sector averaged 21% station utilization; those in the private sector, 16%. Table 3.I.10 shows the elements of the utilization formula. The impact of the joint-use correction factors may be inferred from this table, as may the relative magnitude, both "plus and minus" of the factors.

TABLE 3.1.10
DENTAL SCHOOLS' CLASSROOM STUDENT STATION UTILIZATION--FALL, 1973

| | STATION HOURS USED BY RESPONDENTS' STUDENTS (000) (1) | CONTROLLED STATION HOURS AVAILABLE (000) (2) | STATION HOURS "BORROWED" BY RESPONDENT (000) (3) | CONTROLLED STATION HOURS "BORROWED" BY OTHER SCHOOLS (000) (4) | PERCENT STU- DENT STATION UTILIZATION $\frac{(1)+(4)}{(2)+(3)} \times 100$ |
|-------------------|---|--|--|---|---|
| TOTAL | 6,948 | 39,420 | 3,927 | 992 | 18 |
| Size of School | | | | | |
| Large | 3,070 | 18,726 | 1,312 | 320 | 17 |
| Medium | 2,825 | 16,503 | 1,122 | 583 | 19 |
| Small | 1,053 | 4,191 | 1,493 | 89 | 20 |
| Control | | | | | |
| Public | 3,785 | 17,516 | 2,399 | 434 | 21 |
| Private | 3,163 | 21,904 | 1,528 | 558 | 16 |
| Geographic Locale | | | | | |
| Innecity | 3,638 | 21,549 | 2,164 | 426 | 17 |
| Outercity | 2,544 | 13,647 | 911 | 336 | 20 |
| Suburban | 766 | 4,224 | 852 | 230 | 20 |
| Rural | 0 | -- | -- | -- | -- |
| Curriculum Type | | | | | |
| Classical | 6,306 | 36,117 | 3,393 | 992 | 18 |
| Revised | 642 | 3,303 | 534 | 0 | 17 |

As may be seen in columns 3 and 4 of the above table, dentistry students represent a greater drain on the classroom resources of their "parent institutions" than is represented by other schools' usage of dental school classrooms.

c. Class Laboratory Utilization

The utilization of class laboratories tended to parallel, at a higher level, those patterns found in classroom utilization. Each class laboratory was utilized an average of 693 hours per year, over 37% more than the average classroom. This heavy usage was primarily a function of the "large" schools' 956 hour per year mean usage -- and the distribution of large schools between the public and private sectors was such that the means for the two sectors were extremely close (see Table 3.I.11).

TABLE 3.I.11
DENTAL SCHOOLS' CLASS LABORATORY UTILIZATION--FALL, 1973

| | NUMBER OF ROOMS | TOTAL HOURS OF USAGE PER YEAR (000) | MEAN HOURS OF USAGE PER ROOM PER YEAR | PERCENT ROOM UTILIZATION | PERCENT STUDENT STATION UTILIZATION |
|-------------------|-----------------------|---|--|--------------------------------|--|
| TOTAL | 486 | 337 | 693 | 35 | 21 |
| Size of School | | | | | |
| Large | 177 | 169 | 956 | 46 | 23 |
| Medium | 224 | 123 | 551 | 27 | 19 |
| Small | 85 | 44 | 517 | 31 | 17 |
| Control | | | | | |
| Public | 318 | 219 | 689 | 35 | 23 |
| Private | 168 | 118 | 701 | 35 | 18 |
| Geographic Locale | | | | | |
| Innercity | 258 | 199 | 771 | 40 | 22 |
| Outercity | 185 | 122 | 657 | 31 | 18 |
| Suburban | 43 | 16 | 377 | 21 | 24 |
| Rural | -- | -- | -- | -- | -- |
| Curriculum Type | | | | | |
| Classical | 435 | 305 | 700 | 34 | 21 |
| Revised | 51 | 32 | 630 | 41 | 16 |

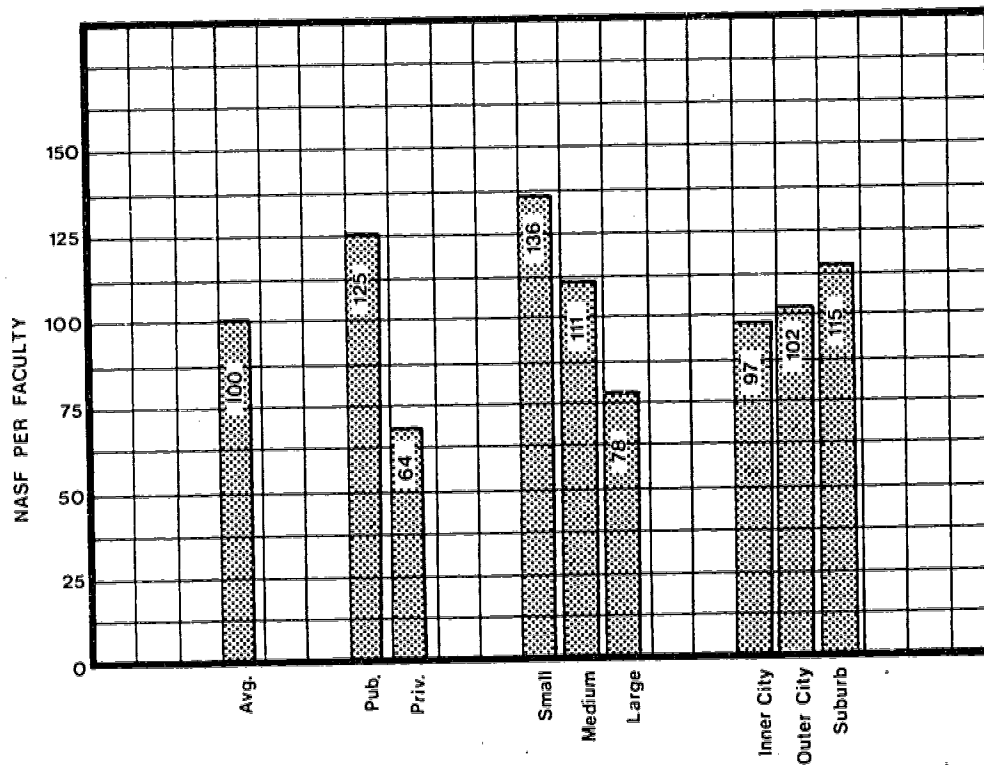
Class laboratory "room utilization" averaged 35% for the dental schools' respondent population as a group, with the public and private sectors each exhibiting this mean value. As is obvious from the table, strong trends in class laboratory usage also existed as a function of locale (as in the case of classrooms).

While the mean class laboratory student station utilization was higher than that for classrooms, it is interesting to note that instead of increasing with decreasing school size (as did classroom utilization), it decreases with decreasing school size. Otherwise, class laboratory station utilization tends to follow the same pattern as classroom station utilization.

d. Faculty Offices

When the total NASF of faculty office space (438,000 NASF) is compared with the full-time equivalent teaching faculty (4,363), the NASF per faculty member is approximately 100. On this same measure, schools in the public sector reported nearly twice the NASF per faculty member than did schools in the private sector. As is seen Figure 3.I.G, the relationship exhibited between "size" of school and NASF per faculty member was quite clear, as was the pattern of increasing space per faculty member as the locale of school changed from innercity through outercity and suburban settings.

FIGURE 3.I.G
FACULTY OFFICE SPACE PER FACULTY MEMBER, DENTAL SCHOOLS--FALL, 1973



e. Animal Facilities

The 41 schools of dentistry responding to the relevant questions indicated that nearly 20% of their animal facilities were used for instructional purposes and the remainder (80%) were used almost exclusively for research. The largest departure from these figures was exhibited by the smaller schools which indicated that over 30% were for instructional purposes.

C. ONGOING CONSTRUCTION AND REMODELING, AND THE POST CONSTRUCTION INVENTORY

1. Extent, Purposes, and Cost

Twenty of the schools of dentistry responding to the survey indicated that, as of the survey date, they were involved in a construction or remodeling program. The reported programs ranged in size up to \$27 million for new construction, and up to \$5 million for a single remodeling program. Representing the construction of some 1.2 million GSF (669,000 NASF) of new facilities to be controlled by the respondents, 72% of the \$97 million of construction and remodeling cost was reported by the public sector (see Table 3.I.12). Notably, over half of this construction is attributable to "on-site patient care" (205,000 NASF) and "other" facilities (140,000 NASF).

TABLE 3.I.12
OVERVIEW OF DENTAL SCHOOLS' ONGOING CONSTRUCTION AND REMODELING-
-FALL, 1973

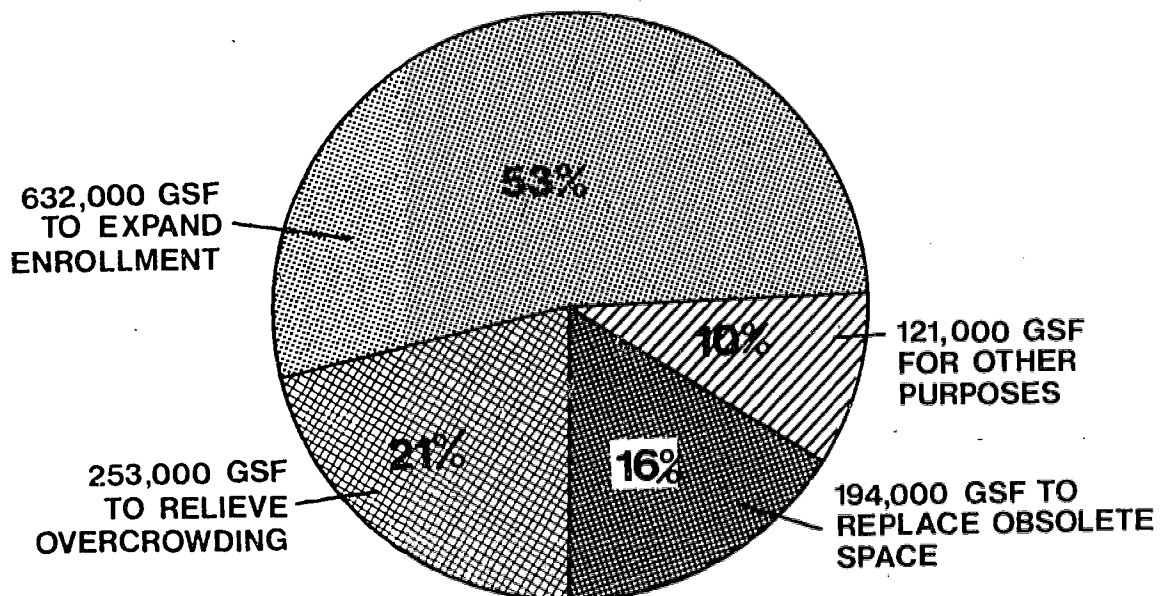
| | NUMBER OF SCHOOLS RESPONDING TO SURVEY | NUMBER OF SCHOOLS WITH CONSTRUCTION | GSF OF CONSTRUCTION (000) | CONSTRUCTION COST (\$000)* | NUMBER OF SCHOOLS WITH REMODELING | NASF OF REMODELING (000) ** | REMODELING COST* (\$000) |
|-------------------|---|---|---------------------------------|-------------------------------|--|-----------------------------------|--------------------------------|
| TOTAL | 46 | 10 | 1,199 | 86,091 | 10 | 100 | 10,866 |
| Size of School | | | | | | | |
| Large | 15 | 3 | 721 | 53,398 | 5 | 60 | 5,842 |
| Medium | 18 | 4 | 61 | 5,600 | 3 | 37 | 4,682 |
| Small | 13 | 3 | 417 | 27,093 | 2 | 3 | 342 |
| Control | | | | | | | |
| Public | 26 | 7 | 818 | 61,203 | 5 | 83 | 8,297 |
| Private | 20 | 3 | 381 | 24,888 | 5 | 17 | 2,569 |
| Geographic Locale | | | | | | | |
| Innercity | 20 | 6 | 606 | 48,688 | 6 | 63 | 4,354 |
| Outercity | 20 | 4 | 593 | 37,403 | 4 | 37 | 6,512 |
| Suburban | 6 | 0 | -- | -- | 0 | -- | -- |
| Rural | 0 | 0 | -- | -- | 0 | -- | -- |
| Census Region | | | | | | | |
| Northeast | 11 | 3 | 382 | 30,290 | 3 | 36 | 5,489 |
| Northcentral | 13 | 3 | 726 | 49,286 | 3 | 15 | 1,150 |
| South | 17 | 3 | 75 | 5,115 | 3 | 48 | 3,727 |
| West | 5 | 1 | 16 | 1,400 | 1 | 1 | 500 |

* As reported for all construction and remodeling, including "on-site patient care" and "other" which are excluded from the NASF figures.

The 12 innercity and 8 outercity schools reported somewhat similar levels of construction and remodeling. The costs of construction in outercity locales were about 77% of the costs of the corresponding new construction at innercity schools. The net result was a widely differing average cost per GSF of new construction between innercity and outercity locales: the former represented a cost of \$80 per GSF; while the latter averaged \$63.

As Figure 3.I.H indicates, schools of dentistry reported that more than half (53%) of the new space was being built for the purpose of enrollment expansion, a figure equalled in both the public and private sectors. Facilities obsolescence was not mentioned as one of the purposes of new construction at small schools: thus, when the latter were removed from the computations, the large and medium sized schools each showed one-fourth of their new construction to be for this purpose. The aggregate result, here, is that with only 194,000 GSF of the new construction reported to be for overcrowding relief, the 459,000 NASF overcrowding need perceived as of the survey date will be little alleviated by ongoing construction programs.

FIGURE 3.I.H
PURPOSES OF ONGOING CONSTRUCTION AT DENTISTRY SCHOOLS, FALL, 1973



2. Sources of Funds for Ongoing Construction and Remodeling Programs

Of the 97 million dollars reported by respondents as "committed" to ongoing construction and remodeling efforts, nearly 36% was contributed by state and local sources, (all of it to schools in the public sector) with HPEA construction grants accounting for another 32% of the total. The remaining funds, reported primarily by the private sector, were divided among private ("own funds"), institute borrowing, and foundations/philanthropies. Based on a grouping of schools by control, 46% of the ongoing construction and remodeling costs in the private sector were obtained from HPEA sources, while 27% was the corresponding figure for the publicly controlled respondents.

The attempt to reconcile the HPEA construction grant records of the Bureau of Health Manpower (BHM) with the survey responses (see page 30 in PART 2) was reasonably successful with the major exception of schools of dentistry. As will be recalled, \$9 million in grants to dental schools, recorded by BHM, did not explicitly appear in the survey data. It should also be noted that of the \$97 million construction and remodeling cost reported by dental schools, \$17.5 million was unapportioned as to source. The \$9 million difference (23%) between the survey data and that of the Bureau of Health Manpower is most probably a major constituent of the unapportioned sum; and thus the above figures should be treated cautiously.

3. The Effects of Ongoing Construction and Remodeling

In terms of NASF, the net effect of ongoing construction and remodeling would be to increase the dental schools' inventory by 400,000 NASF, bringing their "allocated" nonclinical instruction facilities to 2.7 million (see Table 3.1.13). Since just under 700,000 NASF of new facilities were reported as being under construction, and since the amount of space rented or leased decreased by only 5,000 NASF in total, it is apparent that those new facilities constructed for replacement purposes are replacing owned rather than rented space.

TABLE 3.1.13
THE EFFECTS OF ONGOING CONSTRUCTION AND REMODELING
ON DENTAL SCHOOLS' ALLOCATED NONCLINICAL FACILITIES

| | NUMBER OF SCHOOLS | FALL, 1973 INVENTORY (000 NASF) | POST- CONSTRUCTION INVENTORY (000 NASF) | CHANGE IN NASF (000) | PERCENT CHANGE |
|-------------------|-------------------------|---------------------------------------|--|----------------------------|-------------------|
| TOTAL | 46 | 2,339 | 2,685 | 346 | 15 |
| Size of School | | | | | |
| Large | 15 | 975 | 1,193 | 218 | 22 |
| Medium | 18 | 870 | 900 | 30 | 3 |
| Small | 13 | 494 | 592 | 98 | 20 |
| Control | | | | | |
| Public | 26 | 1,437 | 1,712 | 275 | 19 |
| Private | 20 | 902 | 973 | 71 | 8 |
| Geographic Locale | | | | | |
| Innercity | 20 | 1,159 | 1,325 | 166 | 14 |
| Outercity | 20 | 931 | 1,111 | 180 | 19 |
| Suburban | 6 | 249 | 249 | 0 | 0 |
| Rural | 0 | -- | -- | -- | -- |
| Census Region | | | | | |
| Northeast | 11 | 494 | 674 | 180 | 36 |
| Northcentral | 13 | 648 | 781 | 133 | 21 |
| South | 17 | 951 | 978 | 27 | 3 |
| West | 5 | 246 | 252 | 6 | 2 |

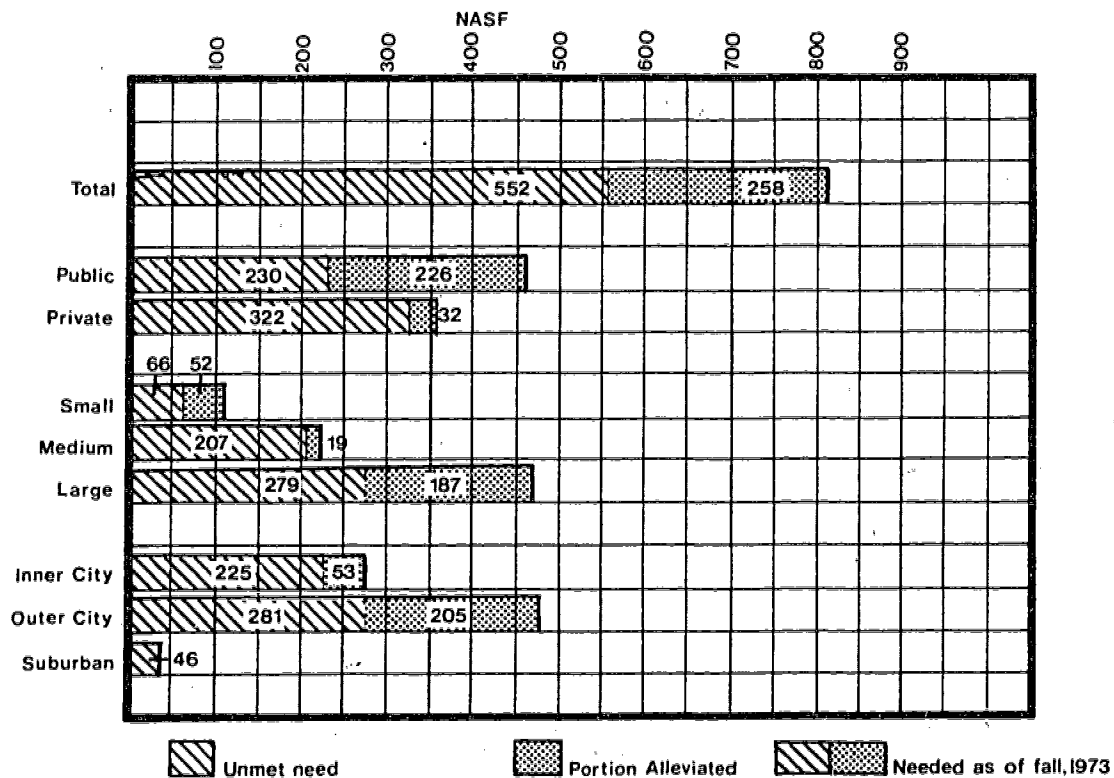
By multiplying the percentage of the GSF (under construction) reported by respondents to be for replacement purposes, by the NASF of new construction, we obtain an estimated NASF of new construction for replacement purposes. We must compare this figure with that reported as of the survey date to see how much of and where the needs for replacement are being fulfilled. In all, 190,000 NASF were indicated by respondents as "needing replacement": using the computational approach described above, we obtain an estimated NASF (being replaced) of 52 thousand NASF, 27% of the need. This percentage varies widely for the various categorizations of schools used previously in this analysis. Keeping in mind both the subjective nature of responses to questions concerning "purposes of new construction" and the GSF to NASF conversion being made, we find that none of the private sector's 134,000 NASF need for replacement purposes was being mitigated by ongoing construction programs, nor was the

61,000 NASF need of the small schools being fulfilled. In fact, in the case of the small schools (5 reported a replacement need) the remaining need represents the largest amount for any of the school sizes.

On the basis of numbers of NASF, the largest increases (50 thousand) were reported for both faculty offices and research and research training space, followed closely by classroom space (48,000) and class laboratories (43,000). (Of the 350,000 NASF increase, respondents failed to report the apportionment of 118,000 NASF.)

Thirty-three of the 46 respondents reported that upon the completion of ongoing construction and remodeling programs, 552,000 NASF were still required for accommodation of the enrollment expected at that time. Based upon the 810,000 NASF pre-construction need, it is apparent that, in the aggregate, 32% (260,000 NASF) of the pre-construction need was alleviated by ongoing construction and remodeling efforts as of the survey date (see Figure 3.I.I).

FIGURE 3.I.I
THE EFFECT OF ONGOING CONSTRUCTION ON PERCEIVED PRE-CONSTRUCTION NEEDS



On the basis of room-type, the 552,000 NASF need depicted in the above figure is distributed as shown in Table 3.I.14, below.

TABLE 3.I.14
DENTAL SCHOOLS' POST-CONSTRUCTION NASF NEEDED--BY ROOM-TYPE

| | NASF NEEDED POST- CONSTRUCTION (1) | % OF NEED (2) | NASF AVAIL- ABLE AT SCHOOLS REQUIRING SPACE (3) | NEEDED AS % OF AVAILABLE (4) |
|------------------------------|---|---------------------|--|---------------------------------------|
| TOTAL | 552 | 100 | 1,200 | 46 |
| Classrooms | 74 | 13 | 131 | 56 |
| Class Laboratories | 75 | 14 | 187 | 40 |
| Research & Research Training | 112 | 20 | 110 | 102 |
| Library | 75 | 14 | 39 | 192 |
| Auditoria | 64 | 12 | 0 | -- |
| Faculty Offices | 83 | 15 | 202 | 41 |
| Administrative Areas | 32 | 6 | 62 | 52 |
| Animal Facilities | 38 | 7 | 16 | 238 |

Overall, ongoing construction programs will add, on a per student basis, 10 NASF (an increase of 8%). We find that this added square footage is apportioned in such a manner that it does not increase any given room-type by any more than 1 NASF per student. Although the additions, on a NASF per student basis, do not appear significant, the enrollment figures used in the denominator of the computation were based on the respondents' projected enrollment following completion of ongoing construction and remodeling efforts. It is thus of interest to consider the fluctuation in the enrollment figures themselves.

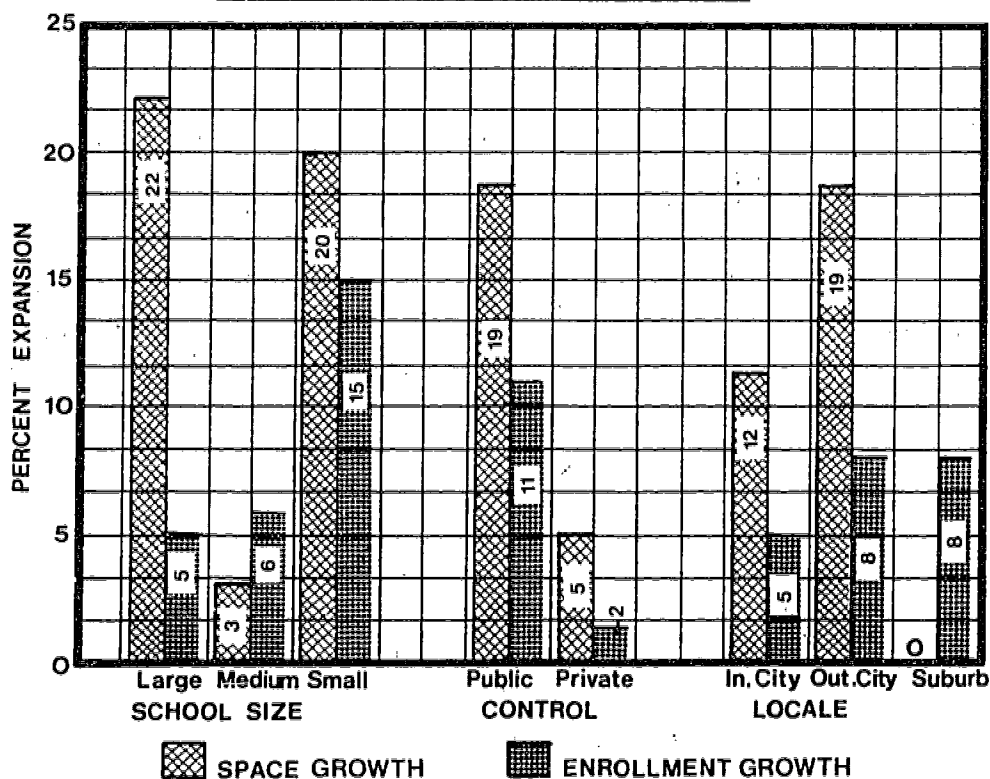
4. The Post Construction Student Population

Given the inherent assumptions underlying our definition of "post-construction period", we find a seven percent increase (18.4 to 19.6 thousand) between the FTE enrollment as of the survey date and the FTE enrollment "following the completion of ongoing construction and remodeling". The most vigorous growth rate was exhibited by the "small" schools (25%), with the large and medium schools reporting aggregate growth rates of 5% and 6% respectively.

Schools of the public sector were expected to be responsible for most of the enrollment increase (nearly 1,100 of the 1,225 students), while schools of the Northeast census region, already accounting for more students than any other region, expected to show the largest percentage increase (11%), bringing their FTE count to 6,638.

It is found that, despite the fact that each categorization of respondents reported some degree of overcrowding prior to new construction, there were a number of cases in which the percentage of projected enrollment growth exceeded the percentage increase in the size of the facilities inventory (see Figure 3.I.J). On the other hand, the typical situation was one in which the facilities expansion percentage exceeded the enrollment increase. From this standpoint, the most notable cases were those of the large schools, in which a 22% projected facilities expansion outstripped the 5% enrollment growth factor; and schools of the Northeast, which showed an aggregate 36% increase in facilities compared with the anticipated 4% enrollment increase.

FIGURE 3.I.J
COMPARISON BETWEEN GROWTH IN FACILITIES AND GROWTH IN
ENROLLMENT, PRE- TO POST-CONSTRUCTION



Overall, the NASF per student figures for the various groupings changed in the manner shown in Table 3.I.15--in which it is apparent that few major changes in the balance between enrollment and facilities will have occurred upon completion of ongoing construction and remodeling.

TABLE 3.I.15
FALL, 1973 VERSUS POST-CONSTRUCTION NASF PER STUDENT

| | NASF PER STUDENT FALL, 1973 | NASF PER STUDENT POST CONSTRUCTION | DIFFERENCE | PERCENT CHANGE |
|-------------------|-----------------------------------|--|------------|-------------------|
| TOTAL | 127 | 137 | 10 | 8 |
| Size of School | | | | |
| Large | 112 | 131 | 19 | 17 |
| Medium | 125 | 123 | -2 | -2 |
| Small | 180 | 187 | 7 | 4 |
| Control | | | | |
| Public | 147 | 157 | 10 | 7 |
| Private | 105 | 111 | 6 | 6 |
| Geographic Locale | | | | |
| Innecity | 121 | 132 | 11 | 9 |
| Outercity | 135 | 149 | 14 | 10 |
| Suburban | 128 | 118 | -10 | -8 |
| Rural | 0 | -- | -- | -- |
| Census Region | | | | |
| Northeast | 111 | 145 | 34 | 31 |
| Northcentral | 109 | 118 | 9 | 8 |
| South | 160 | 155 | -5 | -3 |
| West | 118 | 124 | 6 | 5 |

D. THE 1983 LOOK AHEAD

Twenty-two of the 46 dental school respondents indicated plans for the construction of 1.4 million NASF of facilities during the period between the completion of their ongoing construction and remodeling programs and the fall of 1983. These programs ranged in size from 4,000 to 235,000 NASF. About 57% of this new construction, some 810,000 NASF, would be built at nine schools in the private sector; with the remaining 590,000 reported by 13 schools in the public sector. Innercity schools indicated that they would build 830,000 NASF (of the 1.4 million total) as shown in Table 3.I.16.

TABLE 3.I.16
DENTAL SCHOOLS' PLANNED CONSTRUCTION AND REMODELING THROUGH 1983

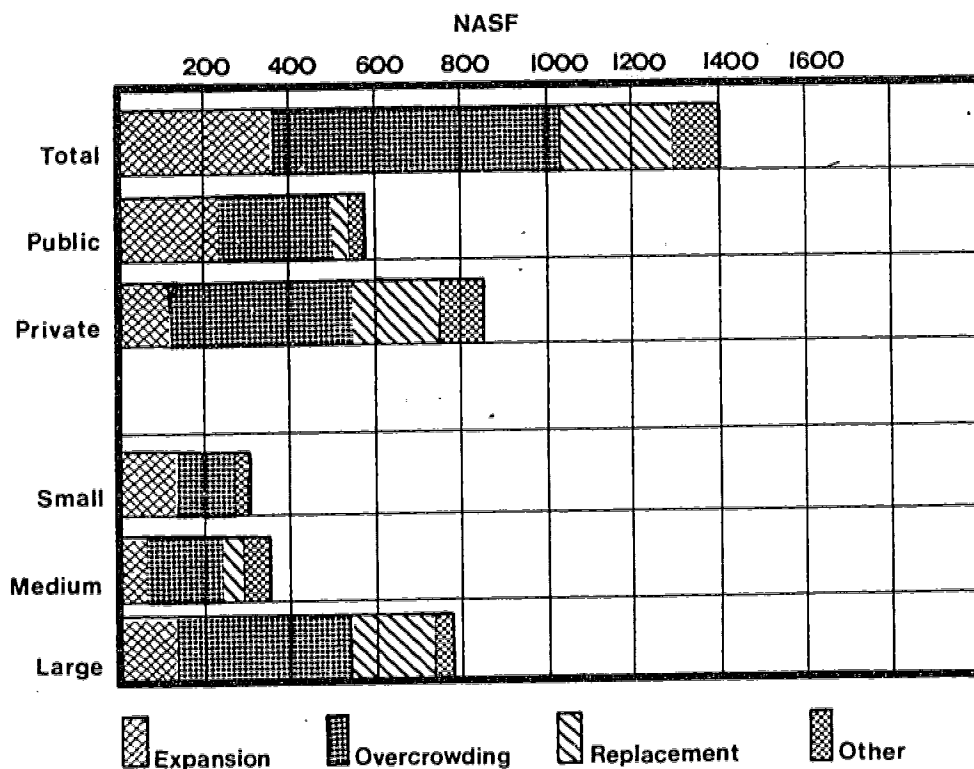
| | | REMODELING | | CONSTRUCTION | |
|-------------------|--|-------------------------|----------------|-------------------------|----------------|
| | | NUMBER OF SCHOOLS | NASF* (000) | NUMBER OF SCHOOLS | NASF* (000) |
| TOTAL | | 16 | 526 | 22 | 1,400 |
| Size of School | | | | | |
| Large | | 6 | 248 | 10 | 792 |
| Medium | | 8 | 190 | 7 | 334 |
| Small | | 2 | 88 | 5 | 274 |
| Control | | | | | |
| Public | | 8 | 255 | 13 | 588 |
| Private | | 8 | 271 | 9 | 812 |
| Geographic Locale | | | | | |
| Innercity | | 8 | 318 | 10 | 829 |
| Outercity | | 5 | 130 | 9 | 476 |
| Suburban | | 3 | 78 | 3 | 95 |

* Includes on-site patient-care and "other".

Although planned remodeling was reported to a much lesser extent (530,000 NASF), we note that as a portion of projected 1983 activity, the public sector reported a greater ratio of remodeling to construction than did the private schools: 83% versus 43%. Since construction, as of the survey date, was so much more prevalent in the public sector than the private, it is logical that, all other things equal, the future remodeling ratios should be as reported.

The reported purposes of the construction planned by respondents between the end of ongoing construction efforts and the fall of 1983 tended to indicate that overcrowding represented the perceived priority need for most dental schools in the coming decade, a result anticipated from previous discussion of ongoing construction.

FIGURE 3.I.K
DENTAL SCHOOLS' PURPOSES OF PLANNED CONSTRUCTION THROUGH 1983



Forty-six percent of the planned construction was for overcrowding relief (equal in both public and private schools), with 28%, 18%, and 8% representing the estimates for enrollment expansion, replacement of obsolete space, and other purposes, respectively.

Construction planned for overcrowding relief was reported as nearly equivalent for both the large and medium-sized schools. Small schools, however, reported expansion of enrollment (65%) as the major purpose of construction. While the need for facilities for enrollment expansion was the highest priority purpose for ongoing construction in both the public (53%) and private (53%) sectors as of the survey date, added planned construction for enrollment expansion through 1983 was much more prevalent for schools in the public sector.

To summarize the changes in dental schools' nonclinical facilities over the 10-year period 1973-1983, Table 3.I.17 presents, for the size, control, and locale categories, the 1973, "post-construction", and 1983 inventory and NASF per student figures derived from respondents' projections. Since the 1983 facilities data requested did not require a distribution of space by room-type, and since only student head-counts were requested for 1983, the 1973 and post-construction figures have been made comparable. All NASF figures in the tables include "on-site patient care" and "other" facilities; and the NASF per student figures use undergraduate and graduate headcounts rather than Full-Time Equivalents (FTE's).

TABLE 3.I.17
SUMMARY OF DENTAL SCHOOLS' ALLOCATED FACILITIES--1973-1983

| | 1973 | | | POST-CONSTRUCTION | | | 1983 | | |
|-------------------|---------------|-----------|---------------------|-------------------|-----------|---------------------|---------------|-----------|---------------------|
| | NASF (000) | HEADCOUNT | NASF PER STUDENT | NASF (000) | HEADCOUNT | NASF PER STUDENT | NASF (000) | HEADCOUNT | NASF PER STUDENT |
| TOTAL | 4,203 | 18,477 | 227 | 4,831 | 19,701 | 245 | 6,375 | 21,652 | 294 |
| Size of School | | | | | | | | | |
| Large | 1,768 | 8,768 | 202 | 2,103 | 9,170 | 230 | 2,832 | 9,853 | 287 |
| Medium | 1,541 | 6,955 | 222 | 1,629 | 7,361 | 221 | 2,103 | 7,884 | 267 |
| Small | 894 | 2,754 | 325 | 1,094 | 3,170 | 345 | 1,440 | 3,915 | 368 |
| Control | | | | | | | | | |
| Public | 2,644 | 9,849 | 268 | 3,086 | 10,935 | 282 | 3,836 | 12,443 | 308 |
| Private | 1,559 | 8,628 | 181 | 1,745 | 8,766 | 199 | 2,539 | 9,209 | 276 |
| Geographic Locale | | | | | | | | | |
| Innercity | 2,065 | 9,619 | 215 | 2,417 | 10,123 | 239 | 3,413 | 11,198 | 305 |
| Outercity | 1,697 | 6,912 | 246 | 1,973 | 7,476 | 264 | 2,347 | 8,154 | 288 |
| Suburban | 441 | 1,946 | 227 | 441 | 2,102 | 210 | 615 | 2,300 | 267 |

E. THE FALL, 1973 INVENTORY OF CLINICAL INSTRUCTION RESOURCES

1. Description

a. Clinical Facilities

Most of the clinical affiliates used by dental schools offered both outpatient and inpatient care facilities: only 5 of these 60 facilities did not offer outpatient care; while only 16 did not offer inpatient care.

The smaller portion of the clinical training resource, in terms of both facilities and patient contact, was that associated with inpatients. Clinical affiliates of dental schools offered nearly 4,500 inpatient beds (with an average patient load of under 2,200), most of them to large schools of the private sector. Inpatient contact was not reported as occurring in "on-site patient care" facilities, which are defined as "those areas (designed for patient contact) which are integrated into the non-clinical instruction facilities of a health profession school".

With respect to ambulatory care, the mainstay of dental students' clinical experience, clinical affiliates reported 350 examining rooms (with over 800 patient stations): for the purposes of respondents' teaching, 476,000 patient visits per year (assuming the 1972 activity level) were made to these ambulatory care facilities, 72% of them in innercity locales. On average, each patient station was thus used for teaching purposes just under 600 times per year.

Forty-four "on-site patient care" clinics were reported by the 46 responding dental schools. Over 2,800 examining and treatment rooms (9,500 patient stations) were reported, as well as a traffic of 2.57 million outpatient visits per year. The typical patient station was used for an average of 271 visits per year for training purposes, 229 in the publicly controlled schools, and 332 for schools in the private sector.

Table 3.I.18 summarizes the relationship between FTE enrollment at dental schools and the ambulatory patient teaching resources represented by "on-site" clinics and clinical affiliates.

TABLE 3.I.18
DENTAL SCHOOLS' FTE ENROLLMENT VERSUS CLINICAL TEACHING RESOURCES

| | FTE ENROLLMENT | OUTPATIENT VISITS (MILLIONS) | AMBULATORY PATIENT STATIONS | OUTPATIENT VISITS PER STUDENT | AMBULATORY PATIENT STATIONS PER STUDENT |
|-------------------|-------------------|------------------------------------|-----------------------------------|-------------------------------------|--|
| TOTAL | 18,410 | 3.05 | 10,305 | 166 | .56 |
| Size of School | | | | | |
| Large | 8,724 | 1.34 | 4,978 | 154 | .57 |
| Medium | 6,935 | 1.16 | 3,790 | 166 | .55 |
| Small | 2,751 | .55 | 1,537 | 199 | .56 |
| Control | | | | | |
| Public | 9,795 | 1.45 | 8,915 | 148 | .91 |
| Private | 8,615 | 1.60 | 4,390 | 186 | .51 |
| Geographic Locale | | | | | |
| Innercity | 9,570 | 1.58 | 5,643 | 165 | .59 |
| Outercity | 6,894 | 1.10 | 3,668 | 159 | .53 |
| Suburban | 1,946 | .37 | 994 | 189 | .51 |

Since "on-site patient care" (OPC) facilities are such a significant contribution to the clinical resources of dental schools, it is of interest to consider their status in some depth. We find that respondents reported 1.21 million NASF of OPC facilities (66 NASF per student), 29% of the overall physical plant considered allocated to (controlled by) dental schools. Eighty-two percent of this space was considered satisfactory, although schools in the Northeast and Western Regions were well below this average (see Table 3.I.19).

TABLE 3.I.19
DENTAL SCHOOLS' INVENTORY OF ON-SITE PATIENT CARE FACILITIES--FALL, 1973

| | NUMBER OF FACILITIES | NASF (000) | NASF PER STUDENT | NASF SATISFACTORY (000) | PERCENT SATISFACTORY |
|-------------------|-------------------------|---------------|---------------------|-------------------------------|-------------------------|
| TOTAL | 44 | 1,209 | 66 | 990 | 82 |
| Size of School | | | | | |
| Large | 14 | 488 | 56 | 379 | 78 |
| Medium | 17 | 484 | 70 | 388 | 80 |
| Small | 13 | 237 | 86 | 223 | 94 |
| Control | | | | | |
| Public | 26 | 776 | 79 | 669 | 86 |
| Private | 18 | 433 | 50 | 321 | 74 |
| Geographic Locale | | | | | |
| Innercity | 20 | 611 | 64 | 484 | 79 |
| Outercity | 19 | 470 | 68 | 380 | 81 |
| Suburban | 5 | 128 | 66 | 126 | 98 |
| Rural | 0 | -- | | | |
| Census Region | | | | | |
| Northeast | 8 | 187 | 42 | 127 | 68 |
| Northcentral | 13 | 420 | 71 | 371 | 88 |
| South | 16 | 486 | 82 | 422 | 87 |
| West | 5 | 116 | 56 | 70 | 60 |

Respondents indicated a need for 414,000 NASF of OPC facilities, 59% of which (244,000 NASF) would be for relief of overcrowding. The remaining need (170,000 NASF) would be for replacement of part of the 219,000 NASF considered unsatisfactory for program purposes as of fall, 1973 (see Table 3.I.20).

TABLE 3.I.20
DENTAL SCHOOLS' PERCEIVED NEEDS FOR ON-SITE PATIENT CARE FACILITIES - FALL, 1973

| | SCHOOLS WITH A NEED FOR OPC FACILITIES | OPC FACILITIES NEEDED (000 NASF) | OPC NEED AS % OF TOTAL NEED | OPC NASF NEEDED PER STUDENT | % OF OPC FACILITIES NEED TO RELIEVE OVERCROWDING |
|-------------------|--|---|-----------------------------------|-----------------------------------|--|
| TOTAL | 24 | 414 | 29 | 22 | 59 |
| Size of School | | | | | |
| Large | 8 | 161 | 24 | 18 | 37 |
| Medium | 9 | 208 | 39 | 30 | 72 |
| Small | 7 | 45 | 24 | 16 | 78 |
| Control | | | | | |
| Public | 11 | 263 | 32 | 27 | 51 |
| Private | 13 | 151 | 26 | 18 | 74 |
| Geographic Locale | | | | | |
| Innecity | 10 | 163 | 33 | 17 | 55 |
| Outercity | 12 | 232 | 28 | 34 | 62 |
| Suburban | 2 | 19 | 25 | 10 | 58 |
| Rural | 0 | 0 | -- | -- | |
| Census Region | | | | | |
| Northeast | 7 | 138 | 31 | 31 | 89 |
| Northcentral | 6 | 114 | 26 | 19 | 30 |
| South | 9 | 146 | 31 | 25 | 59 |
| West | 2 | 16 | 25 | 8 | 50 |

b. Nonclinical Facilities in Clinical Areas

The 200,000 NASF of nonclinical instruction facilities used by dental schools in owned and major affiliated hospitals and clinics represented less than a 10% adjunct to the nonclinical instruction facilities "allocated" to these schools. Of the 60 hospitals reported, 32 made such facilities available for academic purposes (see Table 3.I.21).

TABLE 3.I.21
DENTAL SCHOOLS' NONCLINICAL FACILITIES IN CLINICAL AREAS

| | NASF (000) | PERCENT OF TOTAL NASF |
|------------------------------|---------------|--------------------------|
| TOTAL | 200* | 100* |
| Classrooms | 14 | 7 |
| Class Laboratories | 6 | 3 |
| Research & Research Training | 10 | 5 |
| Library | 36 | 18 |
| Auditoria | 88 | 44 |
| Faculty Offices | 8 | 4 |
| Administrative Areas | 6 | 3 |
| Animal Facilities | 10 | 5 |

* Sum of individual figures is not total since a number of clinics failed to report the distribution of the available NASF for non-patient contact training.

The "distribution profile" of non-clinical facilities in clinical areas indicates that, for the relevant hospital subsample as a whole, auditoria represent the largest element relative to other room-types, accounting for 44% of the NASF reported. Library facilities are the next most visible use to which the non-clinical instruction facilities in clinical settings are put, representing 18% of the distribution profile. Following the classroom percentage (7%), the remaining room-types vary between 3% and 5% of the total.

As will be recalled, 4 schools of dentistry fell into the "revised" curriculum category chosen by the researchers. It is interesting to note that the 26 and 6 hospitals associated with the "classical" and "revised" curriculum-type schools, respectively, have somewhat different space distribution profiles. The greatest distinguishing difference is found with the fact that the "revised" schools have access to approximately four times the classroom, class laboratory, and administrative space (as a percentage of the total NASF available to them in clinical areas) than do those schools whose curricula are considered "classical".

2. Adequacy of Nonclinical Facilities in Clinical Affiliates--Fall, 1973

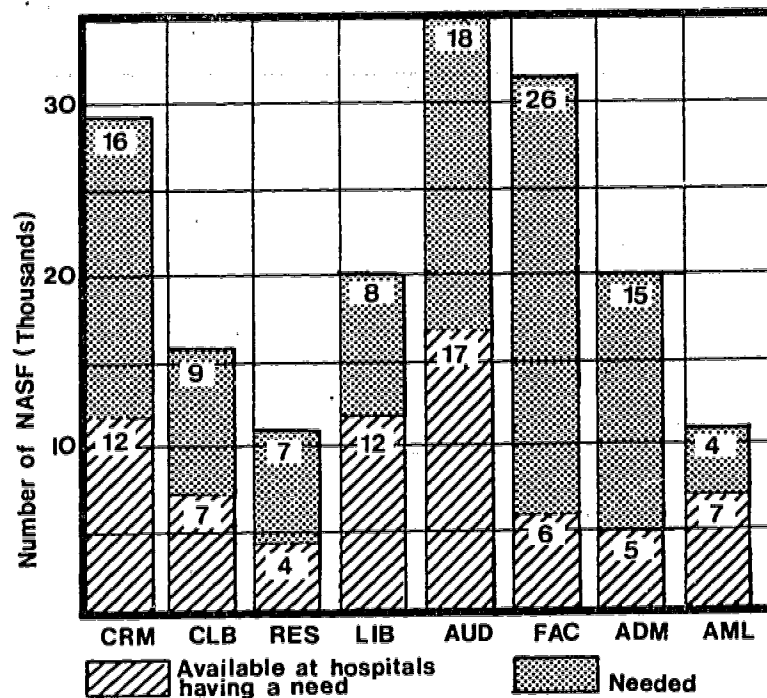
a. Condition

Respondents reported that approximately 80% (160,000 NASF) of the current inventory of non-clinical instruction facilities in clinical settings were "satisfactory for program purposes". Of the remaining 20%, just under half (44%) needed remodeling, while the remainder, some 20,000 NASF, required replacement. Schools in the public and private sectors reported essentially the same "percent satisfactory", but for the remaining space, the private sector indicated that remodeling was the key need (14,000 NASF), while the public sector perceived a replacement requirement of 14,000 NASF.

b. Instructional Facilities Needed in Clinical Settings

Only 21 of the 60 clinics reported a need for additional nonclinical facilities. These institutions represented 35% of dental schools' inventory of nonclinical instruction facilities in clinical areas. Excluding the effects of ongoing construction and remodeling as of the survey date, 107,000 NASF were perceived as needed, with 34% of this figure needed for overcrowding relief. While the NASF needed represents 149% of the NASF currently available, this percentage varies greatly as we analyze each of the room types delineated by the survey instrument. In the aggregate, respondents wished to more than quadruple the available square footage of faculty offices, and treble the available administrative areas. Large expansions were also desired for research and research training space (175%), classrooms (133%), and class laboratories (129%).

FIGURE 3.I.L
COMPARISON OF NASF AVAILABLE WITH NASF NEEDED, NONCLINICAL
INSTRUCTION FACILITIES IN CLINICAL AREAS--FALL, 1973



The lowest priority items reported were those of animal facilities and library space, and even here, both were indicated as requiring an additional 60% (approximate) expansion over that NASF already available.

Relative to the size of the overall need, 24% was attributable to the need for faculty offices; 17% was earmarked for auditoria, and 15% would be for the expansion of classroom space.

F. ONGOING CONSTRUCTION AND REMODELING AND THE POST-CONSTRUCTION INVENTORY OF INSTRUCTION FACILITIES IN CLINICAL AREAS

1. Extent

Nine of the 60 hospitals and clinics associated with the 46 respondent schools of dentistry indicated that, as of the survey date, they were involved in 500,000 GSF of new construction and 110,000 NSF of major remodeling. The total cost of this new construction and remodeling, nearly \$31 million, was primarily being spent by the public sector (87%). Over 80% of the new construction actually related to only 1 hospital.

TABLE 3.1.22
OVERVIEW OF DENTAL SCHOOLS' ONGOING CONSTRUCTION AND REMODELING OF INSTRUCTIONAL FACILITIES IN CLINICAL SETTINGS--FALL, 1973

| | NUMBER OF CLINICS REPORTING | GSF (000) OF NEW CONSTRUCTION | COST (\$000) OF NEW CONSTRUCTION | NSF OF REMODELING (000) | REMODELING COST (\$000) |
|-------------------|-----------------------------|-------------------------------|----------------------------------|-------------------------|-------------------------|
| TOTAL | 9 | 480 | 29,356 | 11 | 1,366 |
| Size of School | | | | | |
| Large | 4 | 43 | 2,890 | 1 | 7 |
| Medium | 4 | 43 | 3,600 | 10 | 1,359 |
| Small | 1 | 394 | 22,866 | 0 | 0 |
| Control | | | | | |
| Public | 6 | 423 | 25,226 | 11 | 1,366 |
| Private | 3 | 57 | 4,130 | 0 | 0 |
| Geographic Locale | | | | | |
| Innercity | 7 | 80 | 6,130 | 11 | 1,366 |
| Outercity | 1 | 6 | 360 | 0 | 0 |
| Suburban | 1 | 394 | 22,866 | 0 | 0 |
| Rural | 0 | | | | |
| Census Region | | | | | |
| Northeast | 3 | 431 | 25,396 | 0 | 0 |
| Northcentral | 2 | 6 | 360 | 1 | 7 |
| South | 4 | 43 | 3,600 | 10 | 1,359 |
| West | 0 | 0 | 0 | 0 | 0 |

Fifteen on-site patient care facilities were also undergoing construction or major remodeling as of fall, 1973. These programs represented over 30% of the dental schools' construction and remodeling of "allocated" instructional space (see Table 3.I.23).

TABLE 3.I.23
ONGOING CONSTRUCTION AND REMODELING OF DENTAL SCHOOLS'
ON-SITE PATIENT CARE FACILITIES--FALL, 1973

| | NUMBER OF CONSTRUCTION PROGRAMS FOR OPC FACILITIES | NASF OF OPC FACILITIES BEING BUILT (000) | NUMBER OF REMODELING PROGRAMS FOR OPC FACILITIES | NASF OF OPC FACILITIES BEING REMODELED (000) |
|-------------------|--|---|--|--|
| TOTAL | 7 | 205 | 8 | 60 |
| Size of School | | | | |
| Large | 3 | 124 | 1 | 13 |
| Medium | 2 | 35 | 5 | 43 |
| Small | 2 | 46 | 2 | 4 |
| Control | | | | |
| Public | 5 | 137 | 4 | 35 |
| Private | 2 | 68 | 4 | 25 |
| Geographic Locale | | | | |
| Innecity | 5 | 103 | 3 | 41 |
| Outercity | 2 | 102 | 5 | 19 |
| Suburban | 0 | -- | 0 | -- |

2. Sources of Funds for Ongoing Construction and Remodeling Programs in Clinical Affiliates

Of the 31 million dollars reported as "fully authorized" for ongoing construction and remodeling efforts, 12% was obtained through borrowing, with state and local funds contributing 54% of the total. Federal sources, including HPEA construction grants, represented the remainder. The state and local funding of construction in the private sector (24% of the total) was a marked increase from the 0% for the "allocated" non-clinical facilities construction: however, it must be recognized that with only \$4.1 million being spent by the private sector, the dollars involved here are \$1 million all told.

3. The Effects of Ongoing Construction and Remodeling of Instruction Facilities in Clinical Settings

The ongoing construction and remodeling at dental schools' clinical affiliates will result in the addition of 115 teaching beds to the 4,450 teaching bed inventory of these hospitals. In addition, the programs will result in the addition of 302 ambulatory patient stations which represents a 37% increase in the 811 such stations reported to be used by dental schools as of the fall of 1973.

TABLE 3.I.24
CLINICAL FACILITIES RESULTING FROM DENTAL SCHOOLS'
ONGOING CONSTRUCTION AND REMODELING--FALL, 1973

| | IN- STITU- TIONS ADDING BEDS | BEDS TO BE ADDED | RESULTING NUMBER OF BEDS | INSTITU- TIONS ADD- ING EXAM ROOM STA- TIONS | STATIONS TO BE ADDED | RESULTING NUMBER OF STATIONS |
|-------------------|--|------------------------|--------------------------------|--|----------------------------|------------------------------------|
| TOTAL | 4 | 115 | 4,570 | 8 | 302 | 1,113 |
| Size of School | | | | | | |
| Large | 1 | 90 | 3,714 | 4 | 87 | 649 |
| Medium | 2 | 19 | 826 | 3 | 65 | 227 |
| Small | 1 | 6 | 30 | 1 | 150 | 237 |
| Control | | | | | | |
| Public | 2 | 10 | 173 | 5 | 220 | 495 |
| Private | 2 | 105 | 4,397 | 3 | 82 | 618 |
| Geographic Locale | | | | | | |
| Innercity | 3 | 109 | 3,759 | 6 | 136 | 774 |
| Outercity | 0 | -- | 527 | 1 | 16 | 166 |
| Suburban | 1 | 6 | 284 | 1 | 150 | 173 |

With regard to nonclinical instruction facilities, the net effect of ongoing construction and remodeling in dental schools' clinical affiliates will be to add 42,000 NASF (21%) to the inventory that existed as of fall, 1973. On a percentage basis, this increase most impacts the clinics associated with "medium-sized" schools, for whom it represents a 54% addition. Along these same lines, schools in the public sector anticipated adding 40% more space through ongoing construction programs than previously existed: from 83,000

NASF, the post-construction inventory of nonclinical facilities in clinical areas was expected to rise to 116,000 NASF. Schools of the private sector reported that their clinical affiliates would add 9,000 NASF (an 8% increase over the fall, 1973 inventory of 117,000). Table 3.I.25 summarizes the effects of ongoing construction and remodeling programs on both the nonclinical instructional space available at clinical affiliates' sites and the on-site patient care facilities integrated into dental schools "allocated" facilities.

TABLE 3.I.25
EFFECTS OF ONGOING CONSTRUCTION AND REMODELING ON CLINICAL TEACHING RESOURCES

| | FALL, 1973 INVENTORY | | POST-CONSTRUCTION INVENTORY | | PERCENT CHANGE | |
|-------------------|---|--|---|---------------------------|--|----------------|
| | NONCLINICAL FACILITIES IN CLINICAL AREAS (000 NASF) | ON-SITE PATIENT CARE FACILITIES (000 NASF) | NONCLINICAL FACILITIES IN CLINICAL AREAS (000 NASF) | OPC FACILITIES (000 NASF) | NONCLINICAL FACILITIES IN CLINICAL AREAS | OPC FACILITIES |
| TOTAL | 200 | 1,209 | 242 | 1,351 | 21 | 12 |
| Size of School | | | | | | |
| Large | 136 | 488 | 146 | 565 | 7 | 16 |
| Medium | 59 | 484 | 91 | 520 | 54 | 7 |
| Small | 5 | 237 | 5 | 266 | 0 | 12 |
| Control | | | | | | |
| Public | 83 | 776 | 116 | 852 | 40 | 10 |
| Private | 117 | 433 | 126 | 499 | 8 | 15 |
| Geographic Locale | | | | | | |
| Innercity | 131 | 611 | 148 | 695 | 13 | 14 |
| Outercity | 51 | 470 | 76 | 528 | 49 | 12 |
| Suburban | 18 | 128 | 18 | 128 | 0 | 0 |

It should also be noted that following the completion of ongoing construction and remodeling efforts, 247,000 NASF of on-site patient care facilities were still needed by 18 of the Nation's dental schools, 60% of them by 8 schools in innercity locales. The distribution and relative magnitudes of this need are displayed in Table 3.I.26.

TABLE 3.I.26
POST-CONSTRUCTION NEED FOR ON-SITE PATIENT CARE FACILITIES

| | NUMBER OF SCHOOLS REPORTING A NEED | NASF (000) NEEDED | AMOUNT OF OPC AVAILABLE, "POST- CONSTRUCTION" (000 NASF) | PERCENT INCREASE NEEDED $\frac{(\text{COL (2)} \times 100)}{\text{COL (3)}}$ |
|-------------------|---|----------------------|--|---|
| TOTAL | 18 | 247 | 1,351 | 18 |
| Size of School | | | | |
| Large | 6 | 82 | 565 | 15 |
| Medium | 8 | 146 | 520 | 28 |
| Small | 4 | 19 | 266 | 7 |
| Control | | | | |
| Public | 7 | 99 | 852 | 12 |
| Private | 11 | 148 | 499 | 30 |
| Geographic Locale | | | | |
| Innercity | 8 | 156 | 695 | 22 |
| Outercity | 8 | 72 | 528 | 14 |
| Suburban | 2 | 19 | 128 | 15 |

G. THE 1983 LOOK AHEAD FOR CLINICAL FACILITIES

Only 5 of respondents' clinical affiliates indicated a planned construction program for the coming decade. Of the 700,000 NASF to be constructed (including patient care areas), the percentage to be applied to overcrowding relief is nearly twice that for either enrollment expansion or replacement of obsolete space. Most of this construction (88%) will be performed by the schools in the public sector: it will, moreover, be situated almost entirely in inner-city and outercity locales.

H. NEW DENTAL SCHOOLS

1. Current Inventory of Nonclinical Instruction Facilities

The seven new respondent schools of dentistry, serving 136 students, controlled 107,000 NASF as of the survey date, 23,000 NASF of it rented, and the remaining 84,000 NASF owned or leased on a very long-term basis. Eighty-two percent of this space was considered satisfactory for program purposes, while 10% (11,000 NASF) required remodeling and the remainder (8,000 NASF) needed replacement (see Table 3.I.27).

TABLE 3.I.27
NEW DENTAL SCHOOLS' INVENTORY OF NONCLINICAL INSTRUCTION
FACILITIES--FALL, 1973

| | NUMBER OF SCHOOLS | TOTAL NASF* | NASF OWNED | NASF RENTED | NASF SAT- ISFACTORY | NASF NEEDING REMODELING | NASF NEEDING REPLACE- MENT |
|-------------------|-------------------------|----------------|---------------|----------------|------------------------|-------------------------------|-------------------------------------|
| TOTAL | 7 | 107 | 84 | 23 | 88 | 11 | 8 |
| Control | | | | | | | |
| Public | 6 | 93 | 70 | 23 | 74 | 11 | 8 |
| Private | 1 | 14 | 14 | 0 | 14 | 0 | 0 |
| Geographic Locale | | | | | | | |
| Innecity | 1 | 24 | 24 | 0 | 24 | 0 | 0 |
| Outercity | 6 | 83 | 60 | 23 | 64 | 11 | 8 |
| Census Region | | | | | | | |
| Northeast | 1 | 14 | 14 | 0 | 14 | 0 | 0 |
| Northcentral | 1 | 42 | 42 | 0 | 31 | 11 | 0 |
| South | 4 | 43 | 24 | 19 | 39 | 0 | 4 |
| West | 1 | 8 | 4 | 4 | 4 | 0 | 4 |

* All square footage figures are in thousands.

2. Ongoing Construction and Remodeling

Five construction programs and three remodeling programs were reported by six of the seven new dental schools. Representing a total expenditure of nearly \$58 million, the construction programs, in particular, were wholly conceived for the purpose of enrollment expansion. With HPEA construction grants account-

ing for 44% of the total expenditure, state and local funds represented 27% of these programs' cost with borrowing accounting for another 23%. Respondents did not report the sources of two-thirds of the remaining \$3.5 million.

TABLE 3.I.28
OVERVIEW OF NEW DENTAL SCHOOLS' ONGOING CONSTRUCTION
AND REMODELING--FALL, 1973

| | NUMBER OF SCHOOLS WITH CONSTRUCTION OR REMODELING | GSF OF NEW CONSTRUCTION (000) | CONSTRUCTION AND REMODELING COST (\$000) |
|-------------------|--|-------------------------------------|--|
| TOTAL | 6 | 1,133 | 57,702 |
| Control | | | |
| Public | 5 | 1,094 | 55,141 |
| Private | 1 | 39 | 2,561 |
| Geographic Locale | | | |
| Innecity | 1 | 187 | 10,750 |
| Outercity | 5 | 946 | 46,952 |

3. Effects of Ongoing Construction and Remodeling at New Dental Schools

Upon completion of ongoing construction and remodeling efforts, the controlled inventory of nonclinical instruction facilities will have been increased to 514,000 NASF, and all of the facilities rented as of fall, 1973 will have been abandoned. The FTE enrollment of graduate and undergraduate dental students will have increased to 1,233, most of this increase occurring at publicly controlled, outercity schools in the Southern Census Region. No post-construction facilities needs were expressed by the respondents, although 3 schools indicated that 51,000 NASF of new construction were planned for completion by 1983, almost entirely for enrollment expansion purposes.

II. SCHOOLS OF MEDICINE

A. INTRODUCTION

Medical schools are very complex organizations with multiple functions. They are concerned not only with medical education, but also with the development of new knowledge through research, and the provision of health care services as a necessary adjunct to clinical teaching. Within the general category of medical education, schools are involved to varying degrees in undergraduate training, postgraduate specialty training, and continuing education. The level of activity in each of these general areas has a major impact on the amount and type of space required by the medical school.

Additional factors that significantly affect space needs at medical schools are (1) the organizational setting of the school, such as free standing or academic health science center; (2) the types of programs emphasized, such as primary care with requirements for outpatient facilities; and (3) the types of inter-organizational arrangements which have been developed, such as affiliation agreements.

Data from the 8 new medical schools that responded to the survey were not included in the sample of schools analyzed in this chapter because a picture of the planned relationship between students and facilities could not be established: facilities were in various stages of development, and the full student body had not been enrolled. Consequently the new school data were not comparable with data from established schools. Similarly, data from 6 two-year schools of medicine have been excluded from the analysis because the full clinical component was missing.

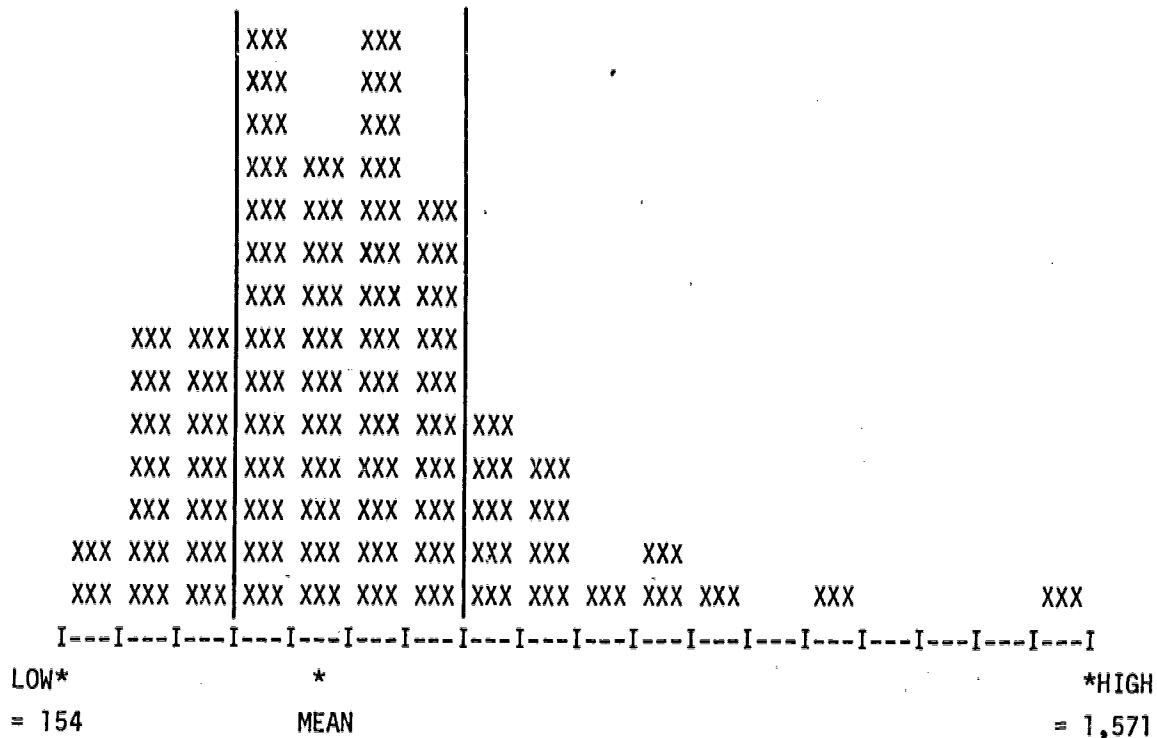
We find that a number of schools are beginning to implement curriculum structures which introduce the student to direct patient contact at earlier points in his educational experience than has historically been the case. With the advent of such curricula, it is hypothesized that the usage of educational facilities will change (if not the physical facilities configuration itself). The nature of the data gathered in the current survey effort lends itself to

the testing of this hypothesis. Each school was assigned to one of two curriculum types designated by the researchers as "classical" and "revised". Determination of which schools fell into which category was based upon the proportion of student hours spent by a typical student in classroom or class laboratory space during the first two years of his medical education. The "classical" curriculum type was defined to be one in which the student spent upward of 80 percent of his time in classrooms and class laboratories during the first half of his academic experience (using as a denominator, the total time he spent in classrooms, class laboratories, and clinical areas). The "revised" curriculum was one in which this percentage was below eighty percent, thereby implying heavier integration of the clinical teaching component during earlier periods of the educational process. As of the fall of 1973, fifteen schools of medicine fell into the "revised" curriculum category.

For reasons which have previously been described, the individual schools were also grouped according to the size of their FTE (full-time equivalent) undergraduate and graduate enrollment. While, in the broadest sense, the distribution of the schools among the "large", "medium", and "small" categories was arbitrary, this distribution was performed after viewing a display (see Figure 3.II.A) of all the enrollment figures, and selecting as the enrollment ranges for each size category, the "natural" (graphically speaking) grouping of the schools. The result of this procedure was to define the three respective groups as follows:

| | |
|--------|---------------|
| Small | 0-400 FTE |
| Medium | 401-700 FTE |
| Large | Above 700 FTE |

FIGURE 3.II.A
DISTRIBUTION OF MEDICAL SCHOOL ENROLLMENT, FALL, 1973
(UNDERGRADUATE AND GRADUATE FTE)



One Interval = 78.5500 students

In sum, the analytical data presented in this chapter represent a composite of numerous factors and influences, some of which were sorted out by size of school, control, locale, "curriculum type", and so on. However, the full range of parameters necessary for an in-depth analysis was not considered due to time, manpower, and dollar constraints. For this reason, we feel it is inappropriate to in any way apply data from this study as "norms" or to so characterize the observed averages and ranges.

Summary Table 3.II.1 below indicates the medical schools' response rate to this survey, and through a successive series of subtractions from the full universe of medical schools, develops the attribute structure for those schools ultimately used in the analysis to follow.



TABLE 3.II.1
RESPONSE RATE FOR SCHOOLS OF MEDICINE

| SCHOOLS OF: <u>MEDICINE</u> | NUMBER OF SCHOOLS IN UNIVERSE | NON-RESPONDENT | | | RESPON- DENTS (NO. 1 - NO.2) | NEW OR 2-YEAR SCHOOLS RESPON- DING | ESTAB- LISHED RESPON- DENTS (#3-#4) | NON-SUB- STANTIVE FORMS ESTAB. SCHOOLS | RE- SPONSES USED IN ANALYSIS (#5-#6) | ANALYZED SCHOOLS AS A % OF ESTAB- LISHED UNIVERSE (7/(1-2a-4)) |
|--------------------------------|---|-----------------------------|-----------------------------|------------------------|---------------------------------------|--|---|--|--|--|
| | | NEW OR 2-YEAR SCHOOLS | ESTAB- LISHED SCHOOLS | TOTAL (#2a+ #2b) | | | | | | |
| | #1 | #2a | #2b | #2c | #3 | #4 | #5 | #6 | #7 | #8 |
| TOTAL | 114 | 3 | 13 | 16 | 98 | 13 | 84 | 4 | 81 | 83 |
| Large | 18 | 0 | 1 | 1 | 17 | 0 | 17 | 0 | 17 | 94 |
| Medium | 54 | 0 | 8 | 8 | 46 | 0 | 46 | 2 | 44 | 81 |
| Small | 42 | 3 | 4 | 7 | 35 | 13 | 21 | 2 | 20 | 77 |
| Public | 68 | 2 | 6 | 8 | 60 | 11 | 49 | 2 | 47 | 85 |
| Private | 46 | 1 | 7 | 8 | 38 | 2 | 35 | 2 | 34 | 79 |
| Innercity | | | | | | | | | 39 | |
| Outercity | | | | | | | | | 32 | |
| Suburban | | | | | | | | | 9 | |
| Rural | | | | | | | | | 1 | |
| Classical | | | | | | | | | 66 | |
| Revised | | | | | | | | | 15 | |
| Northeast | 30 | 1 | 3 | 4 | 26 | 2 | 23 | 1 | 23 | 85 |
| Northcentral | 30 | 1 | 2 | 3 | 27 | 5 | 22 | 2 | 20 | 83 |
| South | 38 | 1 | 3 | 4 | 34 | 4 | 30 | 1 | 29 | 88 |
| West | 16 | 0 | 5 | 5 | 11 | 2 | 9 | 0 | 9 | 64 |

B. INVENTORY OF NONCLINICAL FACILITIES CONTROLLED BY RESPONDENTS, FALL, 1973

1. Description of Facilities

Table 3.II.2 sketches the established medical schools' physical facilities inventory as of the survey date. Recalling the discussion of Section 2.II.A, our analysis deals primarily with item 7, Net Assignable Square Footage of space controlled by (allocated to) respondents, excluding "on-site patient care" and "other" facilities.

TABLE 3.II.2
NONCLINICAL FACILITIES INVENTORY OVERVIEW, SCHOOLS OF MEDICINE, FALL, 1973

| | |
|--|------|
| 1. Number of Schools | 81 |
| 2. Owned GSF* | 34.4 |
| 3. Owned NASF* | 21.5 |
| 4. Rented/Leased NASF* | 1.4 |
| 5. Total NASF* (owned or rented) | 22.9 |
| 6. Less "On-Site Patient Care" and "Other" | 5.2 |
| 7. Total NASF of Nonclinical Instruction Space | 17.7 |

* In millions.

Only one school reported no allocation of nonclinical facilities, evidently obtaining all such facilities from a "parent institution". The largest reported inventory was just over .5 million NASF, with the mean configuration at .219 million. The bulk of these facilities were owned or leased on a long-term basis (94%). Shorter-term rentals accounted for 6% of the controlled space.

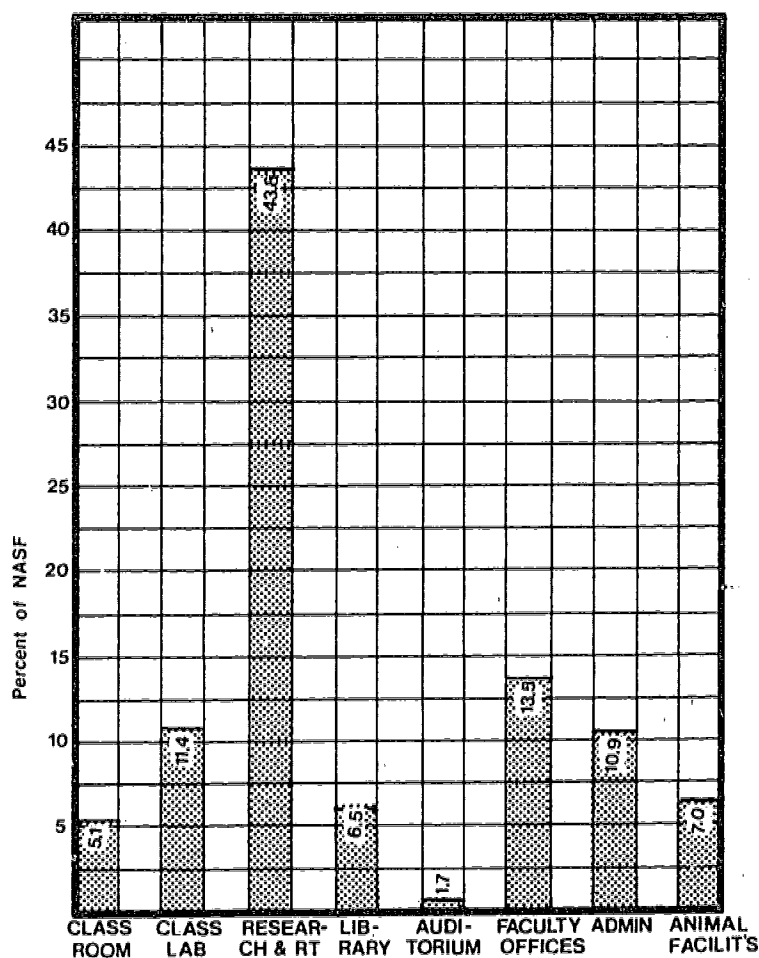
TABLE 3.II.3
MEDICAL SCHOOLS' INVENTORY OF "ALLOCATED" NONCLINICAL FACILITIES

| | NUMBER OF SCHOOLS | TOTAL INVENTORY (000 NASF) | OWNED NASF (000) | RENTED NASF (000) | AVERAGE PER SCHOOL (000 NASF) |
|-------------------|-------------------------|----------------------------------|------------------------|-------------------------|-------------------------------------|
| TOTAL | 81 | 17,705 | 16,640 | 1,065 | 219 |
| Size of School | | | | | |
| Large | 17 | 4,464 | 4,290 | 174 | 263 |
| Medium | 44 | 10,337 | 9,630 | 707 | 235 |
| Small | 20 | 2,904 | 2,720 | 184 | 145 |
| Control | | | | | |
| Public | 47 | 9,555 | 9,014 | 541 | 203 |
| Private | 34 | 8,150 | 7,626 | 524 | 240 |
| Geographic Locale | | | | | |
| Innercity | 39 | 8,020 | 7,575 | 445 | 206 |
| Outercity | 32 | 7,933 | 7,412 | 581 | 248 |
| Suburban | 9 | 1,644 | 1,599 | 45 | 183 |
| Rural | 1 | 108 | 54 | 54 | 108 |

From Table 3.II.3, we find a tendency toward slightly smaller facilities configurations in the public sector than in the private sector (203 versus 240 thousand NASF per school). This tendency is hypothesized to be due in part to the greater availability of "joint-use" facilities in the often multi-school setting of the publicly controlled university.

The schools' distribution profiles (i.e., the percentage of space classified as "classroom", "class laboratory", etc.) are, with few exceptions, relatively constant for various groupings of medical schools. Figure 3.II.B reflects these percentages for the 80 established respondents who reported allocated space:

FIGURE 3.II.B
NONCLINICAL SPACE DISTRIBUTION PROFILE FOR RESPONDENT MEDICAL SCHOOLS,
FALL, 1973



The 7.7 million NASF of research and research training space (43.8% in the above figure) reflects the medical schools' commitment to both research and the education of students in research and related pursuits.

In comparing "classical" and "revised" curriculum-type schools, the "revised" schools reported a lesser portion of space devoted to classrooms and class laboratories than classical schools (11.5 versus 17.7%). It is postulated

that the earlier introduction of the clinical teaching component inherent in the "revised" approach helps balance the need for classrooms over the length of the education program, and, thus, reduces the classroom space requirement relative to that for a "classical" curriculum.

NASF per student station and per room as well as stations per room are shown in the following table:

TABLE 3.II.4
MEDICAL SCHOOLS: MEAN NASF PER ROOM AND STUDENT STATION
FALL, 1973

| ROOM TYPE | # NASF (000) (1) | # ROOMS (2) | NUMBER STUDENT STATIONS (3) | NASF* PER ROOM (4) | NASF* PER STUDENT STATION (5) | STUDENT STATIONS PER ROOM (6) |
|----------------------|------------------------|----------------|--------------------------------------|-----------------------------|--|--|
| Classrooms | 896 | 1,122 | 55,425 | 801 | 16 | 49 |
| Class Laboratories | 2,025 | 1,941 | 40,204 | 1,043 | 50 | 21 |
| Res. & Res. Train. | 7,762 | 26,087 | 15,396 | 275 | 267 | 1 |
| Library | 1,158 | -- | 13,043 | -- | 82 | -- |
| Auditoria | 303 | 90 | 22,522 | 2,867 | 11 | 250 |
| Faculty Offices | 2,392 | 14,891 | -- | 158 | -- | -- |
| Administrative Areas | 1,930 | -- | -- | -- | -- | -- |
| Animal Facilities | 1,242 | -- | -- | -- | -- | -- |

* Values may appear somewhat small due to computational approach. In column 1, total NASF is displayed, regardless of whether number of rooms and student stations were reported. In computing the ratio of NASF per room or NASF per station, we included in the calculation only those schools reporting the number of rooms or stations. Thus, the numerator actually used in the formula is occasionally smaller than that printed in column 1, but the NASF per room and station figures are a better indication of the actual means.

The individual training sessions characterizing the use of research training space are obvious from Table 3.II.4, with a reported average of almost exactly 1 student station per room.

In analyzing the number of classrooms and laboratories by size and type, the data validated respondents' verbal indications that in the interests of better space utilization, the special purpose class laboratory was becoming less popular than the general purpose and perhaps -- multi-purpose or multi-disciplinary laboratory. We note the changing portion of special-purpose laboratories as we move from the "space-at-a-premium" situation in innercity locales (13% special-purpose laboratories) to the less constrained suburban schools (50%).

TABLE 3.II.5
MEDICAL SCHOOLS' DISTRIBUTION OF CLASSROOMS AND CLASS LABORATORIES
FALL, 1973

| | NUMBER OF SCHOOLS | CLASSROOMS | | CLASS LABORATORIES | | SPECIAL PURPOSE CLASS LABORATORIES | |
|-------------------|-------------------------|-----------------|-------------------|--------------------|-------------------|---------------------------------------|-------------------|
| | | TOTAL NUMBER | AVERAGE NUMBER | TOTAL NUMBER | AVERAGE NUMBER | TOTAL NUMBER | AVERAGE NUMBER |
| TOTAL | 81 | 1,192 | 15 | 1,540 | 19 | 364 | 4.5 |
| Size of School | | | | | | | |
| Large | 17 | 304 | 18 | 495 | 29 | 45 | 2.6 |
| Medium | 44 | 689 | 16 | 800 | 18 | 195 | 4.4 |
| Small | 20 | 199 | 10 | 245 | 12 | 124 | 6.2 |
| Control | | | | | | | |
| Public | 47 | 588 | 13 | 884 | 19 | 255 | 5.4 |
| Private | 34 | 604 | 18 | 656 | 19 | 109 | 3.2 |
| Geographic Locale | | | | | | | |
| Innercity | 39 | 506 | 13 | 746 | 19 | 109 | 2.8 |
| Outercity | 32 | 563 | 18 | 668 | 21 | 144 | 4.5 |
| Suburban | 9 | 107 | 12 | 113 | 13 | 111 | 12.3 |
| Rural | 1 | 16 | 16 | 13 | 13 | 0 | 0.0 |
| Curriculum Type | | | | | | | |
| Classical | 66 | 975 | 15 | 1,253 | 19 | 280 | 4.2 |
| Revised | 15 | 217 | 14 | 287 | 19 | 84 | 5.6 |

2. The Student Population Using the Current Inventory

As of the start of Academic Year 1973-74, the 81 medical schools indicated a total FTE enrollment of undergraduate and graduate students (exclusive of interns and residents) of 45,514. The largest school among these respondents reported 10 times the enrollment exhibited by the smallest: 1,571 versus 154 FTE students. There were 50% more students reported by the public sector than by the privately controlled schools, and an even greater percentage of graduate students (80%) reported by the public schools over the private sector. As can be seen in Table 3.II.6, over half of the medical students reported were situated in innercity locales.

TABLE 3.II.6
MEDICAL SCHOOL FTE ENROLLMENT
FALL, 1973

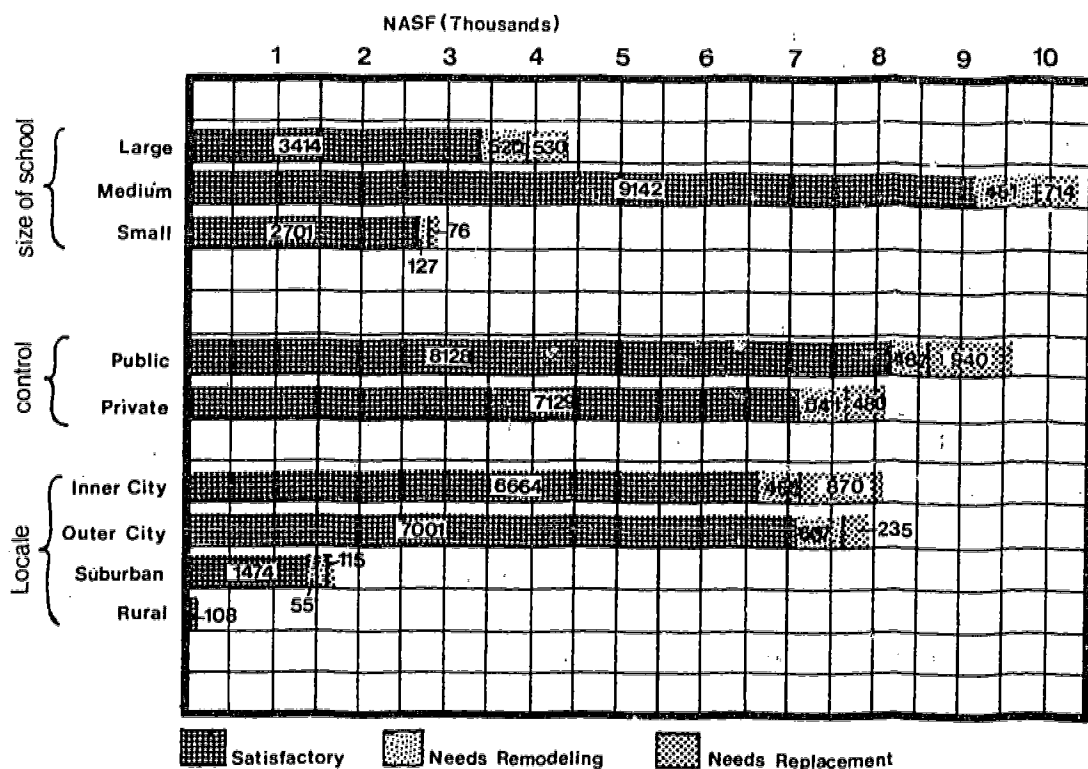
| | NUMBER OF SCHOOLS | TOTAL FTE EN- ROLLMENT | FTE UNDER- GRADUATE ENROLLMENT | FTE GRADUATE ENROLLMENT | AVERAGE FTE PER SCHOOL | FTE GRAD- UATES PER SCHOOL |
|-------------------|-------------------------|------------------------------|--------------------------------------|-------------------------------|------------------------------|----------------------------------|
| TOTAL | 81 | 45,514 | 38,436 | 7,078 | 562 | 87 |
| Size of School | | | | | | |
| Large | 17 | 15,206 | 12,374 | 2,832 | 894 | 167 |
| Medium | 44 | 24,119 | 20,468 | 3,651 | 548 | 83 |
| Small | 20 | 6,189 | 5,594 | 595 | 309 | 30 |
| Control | | | | | | |
| Public | 47 | 27,478 | 22,927 | 4,551 | 585 | 97 |
| Private | 34 | 18,036 | 15,509 | 2,527 | 530 | 74 |
| Geographic Locale | | | | | | |
| Innercity | 39 | 24,818 | 21,319 | 3,499 | 636 | 90 |
| Outercity | 32 | 16,984 | 13,857 | 3,127 | 531 | 98 |
| Suburban | 9 | 3,317 | 2,962 | 355 | 369 | 39 |
| Rural | 1 | 395 | 298 | 97 | 395 | 97 |
| Curriculum Type | | | | | | |
| Classical | 66 | 38,220 | 31,784 | 6,436 | 579 | 98 |
| Revised | 15 | 7,294 | 6,652 | 642 | 486 | 43 |

3. Adequacy of the Fall, 1973 Inventory of Nonclinical Instruction Facilities

a. Condition

A total of 15.3 million NASF (86%) of the 17.7 million NASF of non-clinical facilities allocated to medical schools were reported as "satisfactory for program purposes". Of the remaining 2.4 million NASF over 1.3 million were reported to require replacement (prior to the ameliorating effects of existing construction programs) and 1.1 million could be brought to a satisfactory state through remodeling. One respondent indicated that his entire facility required replacement. Figure 3.II.C illustrates the distribution of space among the three conditions defined by the survey instrument.

FIGURE 3.II.C
MEDICAL SCHOOLS' PERCEIVED CONDITION OF SPACE, FALL, 1973



When the respondent population was divided according to "locale of school", the portion of space reported as "unsatisfactory" by inner-city schools was just under 12%, decreasing over outer-city, suburban, and rural, respectively, to 12%, 10%, and 0 for the single rurally situated school. As opposed to the overall average of 4.6% for non-inner-city schools, inner-city schools indicated that nearly 11% of their current facilities required replacement. Categorization of schools according to census region indicated that the replacement need was greatest in the Southern census region.

The portion of unsatisfactory space was found to vary strongly with size of student enrollment. The portions of unsatisfactory space for the small, medium, and large schools were 7%, 12%, and 24%, respectively. In attempting to gain insight into the high percentage of unsatisfactory space at the larger schools, analysis of the condition of space by room type shows that 69% of these schools' auditoria were not considered satisfactory, (as opposed to under ten percent unsatisfactory for all other room types); and over 35% of the larger schools' faculty offices required either remodeling or replacement. While these figures exceeded the 24% mean, auditoria and faculty offices accounted for only 14% of the larger schools' total inventory. It may thus be concluded that, with the above two exceptions, the problem of unsatisfactory condition was prevalent over all room types in the larger schools.

b. Nonclinical Facilities as of Fall, 1973

While a significant portion of the nonclinical facilities needs as of the survey date will be reduced by the ongoing construction and remodeling program of respondents, it is useful to know respondents' perceptions of the existing need for space exclusive of such reduction. Presumably, the baseline facilities data the most accurate, but perceptions of facilities needs as of the survey date were based upon then-current experience rather than upon experience yet to come. As a result, knowledge of the fall, 1973 availabilities of (and needs for) facilities gives us our most accurate insight into the proposed facilities felt by each respondent to be necessary for satisfactorily accommodating his existing enrollment.

In all, 58 medical schools reported a need for 4.65 million additional NASF (see Table 3.II.7). This need, 28% overall when expressed as a percentage of the inventory as of the survey date, was between 33 and 40% higher for the "large" and "medium" sized schools than for the smaller schools. Schools of the Southern census region perceived a need for 46% additional space, with the remaining three regions varying between 17 and 22 percent.

TABLE 3.II.7
MEDICAL SCHOOLS' PERCEIVED NEEDS FOR ADDITIONAL FACILITIES, FALL, 1973

| | NUMBER OF SCHOOLS | NUMBER OF SCHOOLS REPORTING A NEED | FALL, 1973 NASF (MILLIONS) | | | NEEDED % INCREASE IN TOTAL INVENTORY | % INCREASE IN INVENTORY OF ONLY THOSE SCHOOLS WITH A NEED |
|-------------------|-------------------|------------------------------------|----------------------------|---------------------|-------------|--------------------------------------|---|
| | | | TOTAL | SCHOOLS WITH A NEED | NASF NEEDED | | |
| TOTAL | 81 | 58 | 17.7 | 13.6 | 4.95 | 28% | 36% |
| Size of School | | | | | | | |
| Large | 17 | 16 | 4.5 | 4.3 | 1.22 | 27% | 28% |
| Medium | 44 | 32 | 10.3 | 7.7 | 3.12 | 30% | 41% |
| Small | 20 | 10 | 2.9 | 1.7 | .61 | 21% | 36% |
| Control | | | | | | | |
| Public | 47 | 33 | 9.6 | 7.4 | 2.80 | 29% | 38% |
| Private | 34 | 25 | 8.1 | 6.2 | 2.15 | 27% | 35% |
| Geographic Locale | | | | | | | |
| Innecity | 39 | 29 | 8.0 | 6.3 | 2.42 | 30% | 38% |
| Outercity | 32 | 23 | 7.9 | 6.2 | 1.93 | 24% | 31% |
| Suburban | 9 | 5 | 1.6 | 1.1 | .55 | 34% | 50% |
| Rural | 1 | 1 | .1 | .1 | .04 | 36% | 40% |
| Census Region | | | | | | | |
| Northeast | 23 | 14 | 5.5 | 3.4 | .95 | 17% | 28% |
| Northcentral | 20 | 16 | 4.8 | 4.2 | 1.05 | 22% | 25% |
| South | 29 | 20 | 5.5 | 4.3 | 2.55 | 46% | 59% |
| West | 9 | 8 | 2.0 | 1.7 | .40 | 20% | 23% |

The "desired" space distribution profile was little different from that which existed as of the survey date, either in total or after grouping of schools as to size, locale, and so on. Minor shifts between classroom and class laboratory percentages were apparent (classroom space increased by

schools as to size, locale, and so on. Minor shifts between classroom and class laboratory percentages were apparent (classroom space increased by 11% while class laboratory space decreased about the same), with the most noticeable change being in auditoria (a desired 20% increase was noted here, although auditoria would then still only represent just over 2% of the configuration). Due to the differing absolute amounts of NASF of the various room-types, the 11% and 20% increases are somewhat deceptive without reference to these absolute amounts. Thus, in the case of classrooms, the additional NASF figure desired was 379 thousand, a 42% increase above the current level of 896 thousand NASF. Similarly, for auditoria, it was desired to increase the existing inventory of 303 thousand NASF to 480 thousand, an increment of 58%.

Viewing the 81 medical school respondents as a whole, on a per student basis, 108 NASF were perceived as needed. On the basis of the student population and fall, 1973 inventory at the specific 58 schools reporting a need, the requirement was 139 NASF per student, or a 35% increase over existing levels.

Again on a per-student basis, the desired changes in certain room-types were quite large. For example, it was desired that classroom space per student be increased by 40% from 20 to 28. For small schools, the increase was 56%. Small schools also desired the greatest percentage increase in class laboratory NASF per student (31%) and faculty offices (36%).

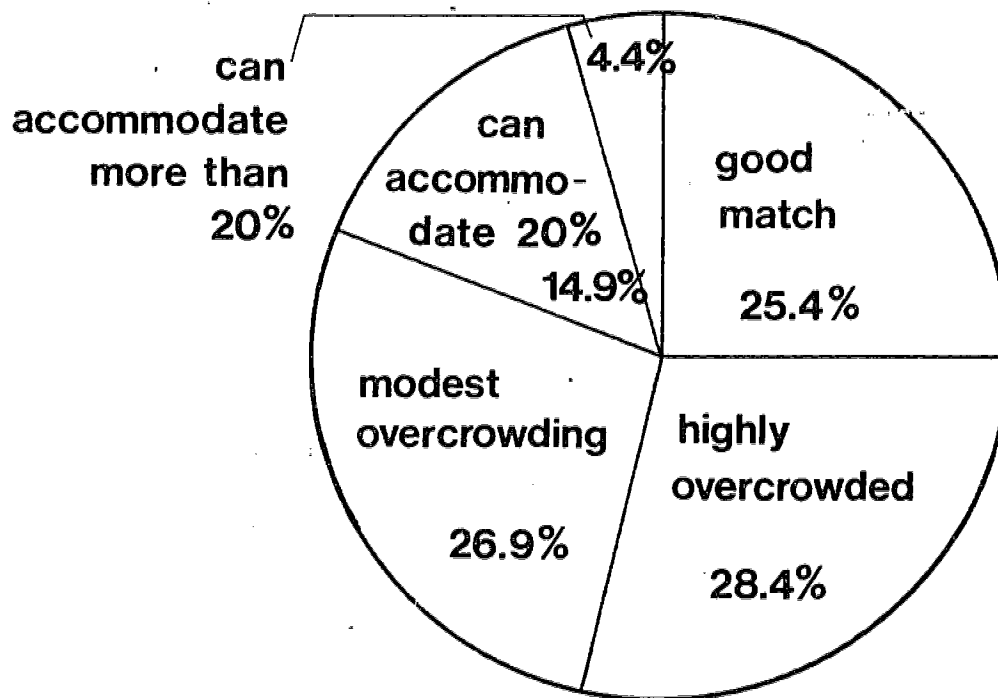
Viewed on the basis of control, schools in the public sector saw a need for 27% additional research and research training space per FTE student (versus 20% in the private schools); while the privately controlled schools, as a group, indicated that their most substantial need was that for faculty office space (37% versus 27% for the public sector). Finally, those medical schools classified as having "revised" curricula reported a desired "target" of 110 NASF per student (a 43% increase) of administrative offices and areas, while the "classical" schools showed an increase of 7 NASF per student (an 18% increase).

Twenty-five percent of the 67 respondents who answered the relevant question indicated that a "good match" existed between library space and en-

rollment as of the survey date (see Figure II.D). Nineteen percent indicated either that "up to 20% additional enrollment could be accommodated", or that "over 20% additional enrollment would not adversely impact the use of the library".

On the other hand, 55% of the respondents indicated either "modestly" or "highly" overcrowded conditions in library space, with about equal frequency. The latter figure held relatively constant as a function of size and control of school.

FIGURE 3.II.D
MEDICAL SCHOOLS' PERCEIVED MATCH BETWEEN LIBRARY CAPACITY AND
ENROLLMENT, FALL, 1973



In all, 68 schools of medicine reported one or more needs (as constrained by the survey instrument) for satisfactorily accommodating their fall, 1973 enrollment. Most often mentioned (54 schools) was the need for

operating funds, \$88.8 million exclusive of salaries for additional faculty needed. The second most frequently mentioned need (52 schools) was that for a total of 3,500 additional teaching faculty (and twice that many support staff in 49 of the schools requiring faculty). Commensurate with the increases in teaching and administrative personnel, 48 schools indicated a need for additional space for faculty offices and administrative areas. It is noteworthy that 32 schools reported a need for additional ambulatory care facilities for training purposes -- while 22 schools reported a need for teaching beds.

4. Resource Usage

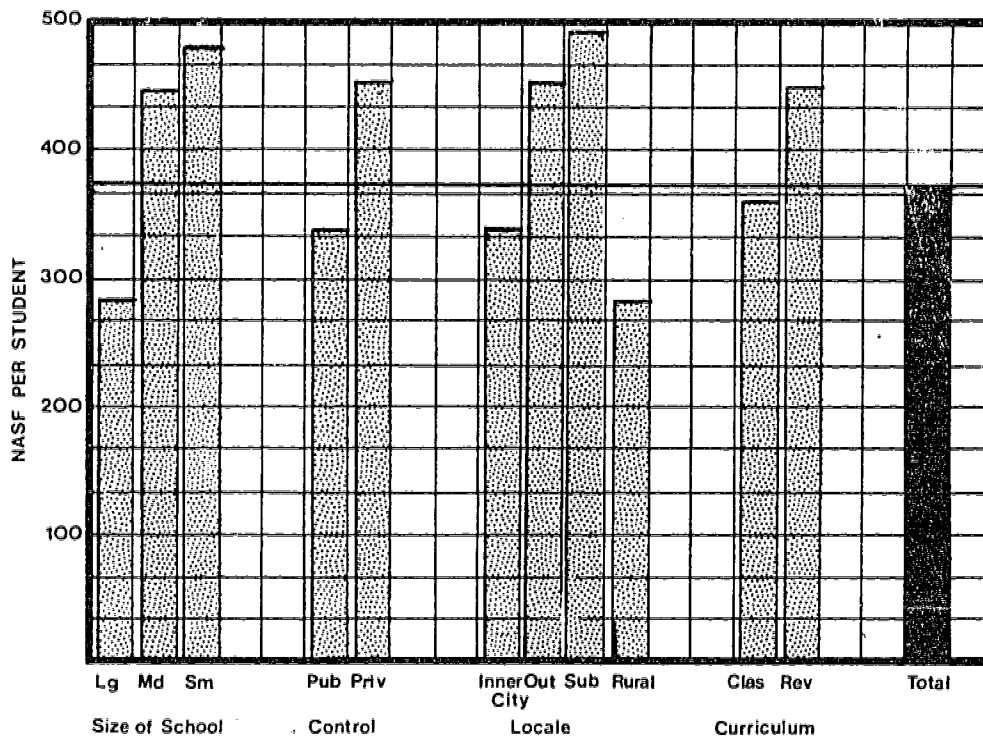
Fifty-eight of the 81 respondent schools of medicine indicated that they were involved in the training of students for advanced degrees. The total NASF of space controlled by these schools was over 13 million, of which nearly 17% was devoted primarily to this graduate level instruction exclusive of intern and resident training. The largest deviation from the latter percentage was exhibited by the "small" schools, with 31% of their "controlled" space being used for graduate rather than undergraduate instruction. Since the majority of those aspects of the survey instrument dealing with the utilization of resources did not distinguish between utilization by undergraduates and utilization by graduates, the subsequent discussion will not make any such distinction.

Three indices are used to assess the relative level of space utilization for nonclinical instruction areas: NASF and student stations per student; room utilization percentages; and student station utilization percentages.

a. Space and Stations Available per Student

Exclusive of "on-site patient care" and "other" facilities, the 81 respondents indicated an average of 389 NASF per student (see Figure 3.II.E). (Since just under 17% of the reported space was used predominantly for graduate-level instruction, and since this figure closely parallels the graduate students' representation in the population, the NASF per student refers to the combined number of undergraduate and graduate FTE students.)

FIGURE 3.II.E
NASF OF ALLOCATED SPACE PER STUDENT, FALL, 1973



Space per student increased as school size decreased, with the schools in the "large" category reporting an average of 294 NASF per student; and schools in the "small" category reporting an average of 469 NASF per student. Schools in the private sector reported nearly a third more NASF per student than schools in the public sector, again reflecting lesser access to joint-use facilities which are more prevalent in the public sector.

In both the size and control breakdowns, the relationships noted above held for each of the eight room types under consideration. It should be noted that in the case of each room-type at least one respondent reported zero NASF under his control: and this zero was included in the computation of the per-student averages. As a result, the figures obtained represent the

NASF per student over all schools (whether or not each type of space was available).

As may be seen in Figure 3.II.E, when the respondents are separated according to "locale", the NASF per student figures increase as we move from inner-city to suburban settings. This relationship, too, generally holds for each room-type. (While, contrary to the locale-dependent trend, the NASF per student in the "rural" setting are relatively low, this is not considered to be significant since only one school considered its location "rural".) Finally, the only noteworthy finding concerning NASF per student vis-a-vis the "curriculum type" variable was that the 63 NASF per student reported under "administrative offices and areas" was well above the "all-respondent" average of 42 NASF per student. This fact may indicate that a "revised" curriculum requires more office facilities to administer, although it is a difficult question to address within the scope of the existing data.

Figures 3.II.F and 3.II.G present data on the number of classroom and class laboratory stations per student for the 71 schools reporting day-to-day control of these rooms. It is apparent that the medium size, private, and outercity schools have somewhat larger numbers of classroom stations per student than do the other categories. Class laboratories show a much more balanced distribution of stations per student.

FIGURE 3.II.F
CLASSROOM STATIONS PER STUDENT--FALL, 1973

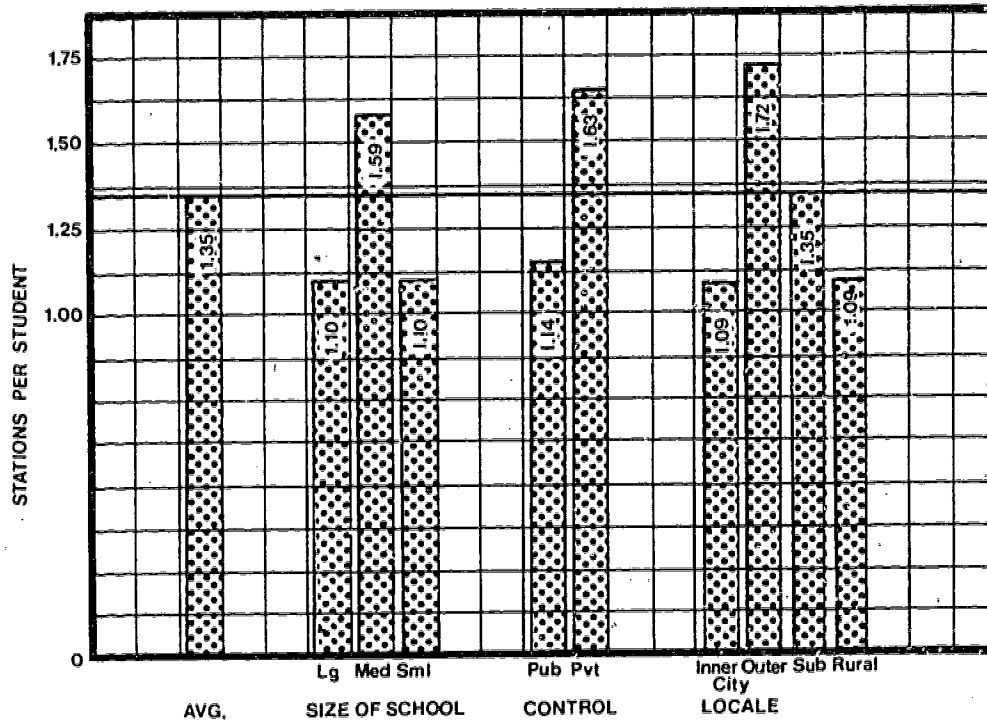
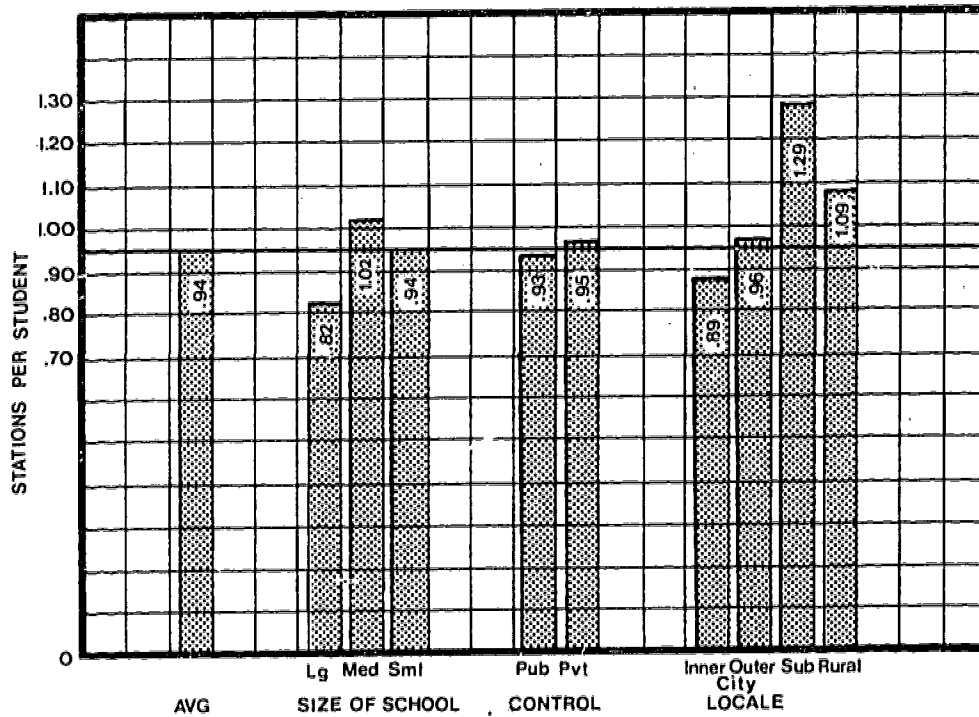


FIGURE 3.II.G
CLASS LABORATORY STATIONS PER STUDENT--FALL, 1973



In addition to the 55,405 classroom student stations whose use was controlled by Respondents, 21,578 stations were available on a joint-use basis through either some central administrative agency or by agreement with other health professions schools "on campus". While, by definition, such stations are not continuously available (and, thus, should be used with care in measuring "stations per student"), they nevertheless represent a significant addition to the medical schools' resources. The "profile" of this student station resource, and its size-relationship with the number of stations controlled by the schools, are shown in Table 3.II.8.

TABLE 3.II.8
JOINT-USE STUDENT STATIONS AVAILABLE TO MEDICAL SCHOOL RESPONDENTS
FALL, 1973

| | CLASSROOMS | | | CLASS LABORATORIES | | |
|-------------------|------------|------------|-------|--------------------|------------|-------|
| | JOINT-USE | CONTROLLED | RATIO | JOINT-USE | CONTROLLED | RATIO |
| TOTAL | 21,578 | 55,405 | .39 | 6,088 | 40,204 | .15 |
| Size of School | | | | | | |
| Large | 6,735 | 15,908 | .42 | 889 | 11,779 | .08 |
| Medium | 12,168 | 33,808 | .36 | 4,115 | 23,112 | .18 |
| Small | 2,675 | 5,689 | .47 | 1,084 | 5,313 | .20 |
| Control | | | | | | |
| Public | 17,607 | 27,615 | .64 | 4,838 | 23,979 | .20 |
| Private | 3,971 | 27,790 | .14 | 1,250 | 16,225 | .08 |
| Geographic Locale | | | | | | |
| Innecity | 9,945 | 24,495 | .41 | 4,603 | 19,746 | .23 |
| Outercity | 9,338 | 26,226 | .36 | 427 | 16,238 | .03 |
| Suburban | 2,295 | 4,254 | .54 | 1,058 | 4,060 | .26 |
| Rural | 0 | 430 | .00 | 0 | 160 | .00 |
| Curriculum Type | | | | | | |
| Classical | 16,309 | 47,352 | .34 | 4,509 | 34,393 | .13 |
| Revised | 5,269 | 8,053 | .65 | 1,579 | 5,811 | .27 |

As a percentage of the schools' "controlled" classroom stations, the jointly-used stations do not appear to vary significantly with size of school. However, the fact that more publicly controlled schools reside within university settings is reflected in the data, with 17.6 thousand versus 4.0 thousand stations being available to schools of the public and private sectors, respectively (64% versus 14% of "controlled" stations).

Class laboratory stations, much more special-purpose in nature than classroom stations, were reported to be much less significant in the joint-use context. As opposed to the classroom percentage (39%), joint-use class laboratory stations represented only a 15% adjunct to Respondents' controlled class laboratory stations. Again, it is found that the schools of the private sector were much less impacted by such space availabilities than those of the public sector (joint-use laboratory stations represented, respectively 8% and 20% of Respondents' "allocated" stations).

b. Usage of Classrooms

Fifty-nine percent of respondents' classroom space in nonclinical settings was devoted primarily to instruction in the basic biological sciences; with 32% of the space devoted to instruction in the clinical sciences, and the remaining 9% for multiple purposes. With few exceptions, these proportions held regardless of the grouping of respondents.

To assist in the subsequent discussion, Tables 3.II.9 and 3.II.10 list some indicators of classroom usage per academic year, and percent of room and student station utilization. Room and station utilization percentages are based on the following (simplified) formula: for a given resource,

$$\frac{\text{Hours of Usage}}{\text{Hours Available}} \times 100 = \% \text{ utilization}$$

The caveats of PART 1 indicate that our purpose in assessing room and student station utilization was comparative analysis. Thus, in the formula's denominator, a 2,080 hour year is used in place of the (typically shorter) "academic year", thereby reducing the computed utilization percentages. The latter fact should be kept in mind as the subsequent discussion is reviewed. For a full technical description of the formula, see Appendix G.

TABLE 3.II.9
CLASSROOM UTILIZATION--FALL, 1973

| | HOURS OF USAGE PER YEAR (000) | NUMBER OF ROOMS | MEAN HOURS OF USAGE PER YEAR | ROOM HOURS AVAILABLE PER YEAR (000) | % ROOM UTILIZATION* |
|-------------------|--|-----------------------|---------------------------------------|--|------------------------|
| TOTAL | 757 | 1,057 | 716 | 2,361 | 35 |
| Size of School | | | | | |
| Large | 256 | 255 | 1,004 | 560 | 50 |
| Medium | 380 | 650 | 585 | 1,433 | 30 |
| Small | 121 | 152 | 796 | 368 | 34 |
| Control | | | | | |
| Public | 400 | 499 | 802 | 1,105 | 42 |
| Private | 357 | 558 | 640 | 1,256 | 30 |
| Geographic Locale | | | | | |
| Innercity | 339 | 434 | 781 | 988 | 37 |
| Outercity | 348 | 506 | 688 | 1,117 | 35 |
| Suburban | 63 | 101 | 624 | 223 | 30 |
| Rural | 7 | 16 | 440 | 33 | 21 |
| Curriculum Type | | | | | |
| Classical | 581 | 873 | 666 | 1,955 | 33 |
| Revised | 176 | 184 | 955 | 406 | 44 |

* The percentages displayed cannot be obtained by simply dividing "hours of usage" by "room hours available" for two reasons. First, the latter two factors are not displayed as "corrected for joint-usage"; and second, they represent figures obtained for the 81 school population while the utilization percentage is based upon only those 68 schools for whom utilization data were complete.

Overall, the average classroom was used 716 hours out of the academic year. Schools in the public sector are as much above the mean on this measure as the schools in the private sector are below it. Grouping of the schools by curriculum type indicates that those schools considered to be offering "revised" curricula showed a 60% greater average usage of classrooms than did "classical" schools; and this relationship holds as we divide the classrooms into the various size categories delineated by the survey instrument (1 - 16 stations, 17 - 32 stations, etc.). Only in the "over 128" station size did schools offering revised curricula show the same usage as did the classical schools. The hypothesis that a revised curriculum contributes to improved balance (and, perhaps, scheduling flexibil-

ity) tends to be supported by the latter figures. The same is true in the case of "room utilization" percentages.

Classroom utilization, the percentage of time that classrooms were reported as used during the academic year 1973-1974, averaged 35% for the 68 respondent schools of medicine for whom data were complete. In line with the patterns established by viewing these rooms' average yearly usage, it is found that the percent utilization of classrooms by schools in the public sector is about one-third greater than that of private schools (42% versus 30%). Schools exhibiting a "revised" curriculum reported a 44% average classroom utilization; while the remaining schools reported 33%.

Classroom student station utilization figures exhibited neither the magnitude nor the variability shown by the corresponding room use percentages. The mean percent of student station utilization for the 74 schools of medicine for whom station utilization rates (occupancy rates) have been computed was 17%, ranging from 1% to 95%. Schools in the public sector showed somewhat greater station utilization than those in the private sector (21 versus 14%); while those schools characterized as offering "revised" curricula reported an average of 20% utilization versus 17% for the remainder of the schools.

TABLE 3.II.10
CLASSROOM STUDENT STATION UTILIZATION--FALL, 1973

| | NUMBER OF SCHOOLS | NUMBER OF STATIONS | STATION-HOURS AVAILABLE PER YEAR (000) | STATION-HOURS USED PER YEAR (000) | STUDENT STATION UTILIZATION (%) |
|-------------------|-------------------------|--------------------------|---|---|--|
| TOTAL | 75 | 51,647 | 107,426 | 14,496 | 17 |
| Size of School | | | | | |
| Large | 15 | 15,690 | 32,635 | 4,702 | 19 |
| Medium | 40 | 30,248 | 62,916 | 7,875 | 17 |
| Small | 20 | 5,709 | 11,875 | 1,920 | 16 |
| Control | | | | | |
| Public | 44 | 26,664 | 55,461 | 8,342 | 21 |
| Private | 31 | 24,983 | 51,965 | 6,154 | 14 |
| Geographic Locale | | | | | |
| Innecity | 35 | 23,344 | 48,556 | 7,607 | 19 |
| Outercity | 30 | 23,619 | 49,128 | 5,599 | 17 |
| Suburban | 9 | 4,254 | 8,848 | 1,162 | 14 |
| Rural | 1 | 430 | 894 | 128 | 14 |
| Curriculum Type | | | | | |
| Classical | 60 | 43,586 | 90,659 | 11,440 | 17 |
| Revised | 15 | 8,061 | 16,767 | 3,056 | 20 |

Allowing for the relatively minor fluctuations in the above figures, it is apparent that the computational methods used herein, theoretically based on a scale from 0 to 100 given a 2,080 hour "academic year", yield low average values for station occupancy. We have already noted, in PART I, one of the major elements which contributes to low student station occupancy rates (the 2,080 hour year). It will also be recalled, however, that the average number of classroom stations per student was over 1.3. This means that if there were no clinical component to a medical school student's training, and if during each day every student in a given school were always seated in a classroom, the occupancy rate would be $1 \div 1.3$ or 77%. If we further assume that approximately 1/2 of a medical school student's academic career is spent in clinical training, then the maximum occupancy rate that could normally be expected would be under 39%. Finally, if we assume that approximately half of the time just described is actually spent in class laboratories, we arrive at an overall average

occupancy figure of under 20%: a figure well reflected in the respondents' data.

The respondents' data showed a range of controlled student stations per student from .07 to 3.61. As can be seen from the computational procedure used in arriving at the percentage of station occupancy, a ratio in the vicinity of 2.5-3.6 will greatly reduce a school's utilization percentage. Through discussions with respondents during the follow-up phases of the survey, it is apparent that medical education is moving more toward small group instruction. While the reasons for the station-to-student ratio are outside the scope of this effort, they may be involved with this changing instructional mode.

c. Class Laboratory Utilization

The utilization of class laboratories appears to run very much parallel to the nature and patterns found in classroom utilization as may be seen in Table 3.II.11. Thus, for example, the schools characterized as "revised" showed much larger figures for "mean hours per year" and "room utilization percentage" in class laboratories than did those schools categorized as "classical"; while the room utilization percentages calculated for the schools in innercity and outercity locales were greater than those calculated for the suburban and rural locales.

TABLE 3.II.11

CLASS LABORATORY UTILIZATION, FALL, 1973

| | HOURS OF USAGE PER YEAR (000) | NUMBER OF ROOMS | MEAN HOURS OF USAGE PER YEAR | ROOM HOURS AVAILABLE PER YEAR (000) | % ROOM UTILI- ZATION |
|----------------|--|-----------------------|------------------------------------|--|----------------------------|
| TOTAL | 1,107 | 1,827 | 606 | 3,738 | 34 |
| Size of School | | | | | |
| Large | 481 | 497 | 968 | 1,034 | 50 |
| Medium | 456 | 976 | 468 | 1,968 | 30 |
| Small | 170 | 354 | 480 | 736 | 23 |
| Control | | | | | |
| Public | 619 | 1,030 | 601 | 2,147 | 36 |
| Private | 488 | 797 | 612 | 1,591 | 32 |
| Geography | | | | | |
| Inner-city | 578 | 823 | 702 | 1,716 | 36 |
| Outer-city | 422 | 735 | 574 | 1,529 | 36 |
| Suburban | 101 | 256 | 396 | 466 | 22 |
| Rural | 6 | 13 | 440 | 27 | 21 |
| Curriculum | | | | | |
| Classified | 828 | 1,473 | 562 | 2,997 | 33 |
| Revised | 279 | 354 | 787 | 741 | 40 |

The data also evaluated station utilization (occupancy) figures for class laboratories and also evaluated the equivalent figures for classrooms to some degree (see Table 3.II.12). It should be noted that the design of the instrument allowed us to distinguish "special purpose" class labs (such as gross anatomy, etc.). In these laboratories, the average usage per year was 392 hours per room. Comparing this figure with the 699 hours per year average for class laboratories, it is apparent that any significant representation of special purpose laboratories would contribute to decreased room use and occupancy rates. Of the 1,904 class laboratories reported by medical school respondents, 364 are "special purpose".

TABLE 3.II.12
CLASS LABORATORY STUDENT STATION UTILIZATION

| | NUMBER OF STATIONS | STATION-HOURS AVAILABLE PER YEAR (000) | STATION-HOURS USED PER YEAR (000) | STUDENT STATION UTILIZATION (%) |
|-------------------|--------------------------|---|---|--|
| TOTAL | 36,085 | 75,057 | 7,961 | 18 |
| Size of School | | | | |
| Large | 9,405 | 19,562 | 2,202 | 17 |
| Medium | 21,367 | 44,443 | 4,397 | 19 |
| Small | 5,313 | 11,051 | 1,362 | 13 |
| Control | | | | |
| Public | 20,805 | 43,274 | 5,004 | 22 |
| Private | 15,280 | 31,782 | 2,957 | 11 |
| Geographic Locale | | | | |
| Innercity | 16,791 | 34,925 | 3,855 | 14 |
| Outercity | 15,074 | 31,354 | 3,028 | 23 |
| Suburban | 4,060 | 8,445 | 902 | 11 |
| Rural | 160 | 333 | 177 | 53 |
| Curriculum Type | | | | |
| Classical | 30,274 | 62,970 | 6,652 | 18 |
| Revised | 5,811 | 12,087 | 1,309 | 14 |

d. Faculty Offices

When the total NASF of faculty office space is compared with the full-time equivalent teaching faculty, the ratio of NASF to faculty for the eighty schools of medicine reporting FTE faculty was approximately 79 as detailed in Table 3.II.13.

TABLE 3.II.13
NASF OF FACULTY OFFICE SPACE PER FACULTY MEMBER--FALL, 1973

| | TOTAL NASF OF OFFICE SPACE | NUMBER OF FTE FACULTY | NASF PER FA- CULTY MEMBER |
|-------------------|-------------------------------|--------------------------|------------------------------|
| TOTAL | 2,325 | 29,378 | 79 |
| Size of School | | | |
| Large | 647 | 6,629 | 98 |
| Medium | 1,338 | 17,741 | 75 |
| Small | 340 | 5,008 | 68 |
| Control | | | |
| Public | 1,348 | 13,541 | 100 |
| Private | 977 | 15,837 | 62 |
| Geographic Locale | | | |
| Innecity | 1,039 | 14,989 | 69 |
| Outercity | 1,096 | 12,121 | 90 |
| Suburban | 174 | 2,098 | 83 |
| Rural | 16 | 170 | 94 |
| Curriculum Type | | | |
| Classical | 1,930 | 23,300 | 83 |
| Revised | 395 | 6,078 | 65 |

It may be hypothesized that some of the differences observed in the ratio are due to relative access to "clinical" faculty who use private office space rather than school-controlled office space.

e. Animal Facilities

In the aggregate, the respondent schools of medicine indicated that 19% of their animal facilities were used for instructional purposes, while 79% were used for research (with 2% for other purposes). Table 3.II.14 summarizes the amount of animal facilities per student as a function of the analysis parameters used herein.

TABLE 3.II.14
DISTRIBUTION OF ANIMAL FACILITIES AMONG MEDICAL SCHOOLS--FALL, 1973

| | PERCENT OF ANIMAL FACILITIES FOR INSTRUCTION (1) | PERCENT OF ANIMAL FACILITIES FOR RESEARCH & RESEARCH TRAINING (2) | NASF OF ANIMAL FACILITIES PER STUDENT (3) | NASF PER STUDENT OF ANIMAL FACILITIES FOR IN- STRUCTION (4) | NASF PER STUDENT OF ANIMAL FACILITIES FOR RE- SEARCH (5) |
|-------------------|---|--|---|---|--|
| TOTAL | 19 | 79 | 27 | 5.13 | 21.3 |
| Size of School | | | | | |
| Large | 17 | 83 | 20 | 3.4 | 16.6 |
| Medium | 19 | 78 | 30 | 5.7 | 23.4 |
| Small | 23 | 76 | 35 | 8.05 | 26.6 |
| Control | | | | | |
| Public | 23 | 73 | 24 | 5.52 | 17.5 |
| Private | 14 | 85 | 32 | 4.48 | 27.2 |
| Geographic Locale | | | | | |
| Innecity | 20 | 80 | 20 | 4.0 | 16.0 |
| Outercity | 17 | 79 | 36 | 6.12 | 28.4 |
| Suburban | 27 | 71 | 43 | 11.6 | 30.5 |
| Curriculum Type | | | | | |
| Classical | 21 | 76 | 26 | 5.46 | 19.8 |
| Revised | 11 | 87 | 34 | 3.74 | 29.6 |

When the respectively increasing percentages (for large, medium, and small schools) of animal facilities used for instructional purposes are factored into the corresponding NASF per student figures (see Column 3 in Table 3.II.14), we find that the NASF per student of animal facilities used for instructional purposes was nearly 240% larger for the small schools than for those categorized as "large" (8.05 versus 3.4 NASF per student in Column 4). Similar applications of the "percent for instruction, percent for research" figures reduce the contrast in NASF of animal facilities per student between the public and private sectors. Whereas the public sector exhibited an aggregate of 24 NASF per student and the private sector 32 NASF per student, application of the percentages (23% and 14%, respectively from Column 1) brings the figures for the two sectors more into parallel (5.52 for the public sector, 4.48 for the private sector).

Apparently, regardless of size, a school must have research-type facilities and training programs which will attract faculty. In this environment, and as reflected in the respondents' data, a "small" school will have higher per student ratios for research space and animal facilities.

f. Joint-Utilization of Classrooms and Class Laboratories

Twenty percent of the classrooms, and 21% of the class laboratories controlled by respondents were used, to some degree, by students of other disciplines. Overall, the classroom hours used by these other students represented just over 9% of the amount of time the rooms were used by medical students; while for class laboratories, the portion was over 14%.

Schools of the public sector reported a higher incidence of allocated space being used by other disciplines. Table 3.II.15 shows the result of taking the ratio of non-medical student to medical student usage of classrooms and laboratories.

TABLE 3.II.15
COMPARISON OF PUBLIC AND PRIVATE SCHOOLS' PROPENSITY TO
OFFER JOINT-USE FACILITIES

| | Classrooms | Class Laboratories |
|---------|------------|--------------------|
| Public | 14% | 21% |
| Private | 4% | 4% |

This higher joint-utilization of space in the public schools can probably be (at least partially) attributed to the fact that the public schools were more typically located in health centers where other, similar students were available. We find, for example, thirty cases of medical schools paired with (at least) a dental school, and 22 of the 30 were on publicly controlled campuses.

Medical schools also tended to use facilities not controlled by them -- and it is interesting that the net usage varies so widely between classrooms and laboratories. In particular, when "room hours offered" are compared to "room hours obtained", the net usage is typically positive for classrooms and negative for class laboratories. This means that while medical schools represented a drain on the classrooms of either other schools or centrally administered facilities, the students of other disciplines typically represented an even larger drain upon the class-laboratory resources of the medical schools (see Table 3.II.16). One notable exception to the above is that of small schools, whose net usage is positive in both cases.

TABLE 3.II.16
CONTRAST IN CLASSROOM AND LABORATORY JOINT-USAGE

| | CLASSROOMS | | | CLASS LABORATORIES | | |
|-------------------|---|---|-----------------------|---|---|-----------------------|
| | ROOM HOURS OF NON- ALLOCATED SPACE USED BY MEDICAL STUDENTS (1) | ROOM HOURS OF MEDICAL SCHOOL SPACE USED BY NON- MEDICAL STUDENTS (2) | NET (1)-(2) (3) | ROOM HOURS OF NON- ALLOCATED SPACE USED BY MEDICAL STUDENTS (4) | ROOM HOURS OF MEDICAL SCHOOL SPACE USED BY NON- MEDICAL STUDENTS (5) | NET (4)-(5) (6) |
| TOTAL | 121,549 | 77,062 | 44,487 | 66,536 | 173,807 | -107,271 |
| Size of School | | | | | | |
| Large | 17,684 | 21,871 | -4,187 | 8,186 | 34,383 | -26,197 |
| Medium | 90,795 | 50,510 | 40,285 | 35,366 | 135,980 | -100,614 |
| Small | 13,070 | 4,681 | 8,389 | 22,984 | 3,444 | 19,540 |
| Control | | | | | | |
| Public | 95,583 | 62,748 | 32,835 | 58,540 | 154,561 | -96,021 |
| Private | 25,966 | 14,314 | 11,652 | 7,996 | 19,246 | -11,250 |
| Geographic Locale | | | | | | |
| Innecity | 80,005 | 25,441 | 54,564 | 40,690 | 37,796 | 2,894 |
| Outercity | 30,814 | 47,443 | -16,629 | 8,462 | 134,111 | -125,649 |
| Suburban | 10,730 | 4,178 | 6,552 | 17,384 | 1,900 | 15,484 |
| Rural | 0 | 0 | 0 | 0 | 0 | 0 |

g. Audio-visual Facilities

Seventy-nine of the 81 analyzed respondents indicated some level of audio-visual facilities availability. Of these 79, 64 reported the existence of a formal "office of audio-visual services" or equivalent. Table 3.II.17 summarizes, in quantitative terms, the audiovisual facilities reported by various categorizations of schools. It is interesting to note that on a per school basis, the "classical" and "revised" curricula appear to have little, if any, effect upon the average amount of A/V facilities available for use.

TABLE 3.II.17
MEDICAL SCHOOLS' AVAILABLE AUDIO-VISUAL FACILITIES--FALL, 1973

| | SCHOOLS REPORT- ING A/V FACILI- TIES | SCHOOLS WITH OF- FICE OF A/V FA- CILITIES | NASF* OF SELF-IN- STRUCTION- AL LABOR- ATORIES | NASF* OF A/V AND TV PRO- DUCTION FACILI- TIES | STUDY CARRELS FOR A/V USE | STUDENTS PER CARREL |
|-----------------|--|---|--|--|------------------------------------|---------------------------|
| TOTAL | 79 | 64 | 159 | 256 | 3,109 | 15 |
| Size of School | | | | | | |
| Large | 16 | 15 | 59 | 17 | 1,238 | 12 |
| Medium | 43 | 35 | 63 | 190 | 1,120 | 22 |
| Small | 20 | 14 | 37 | 49 | 751 | 8 |
| Control | | | | | | |
| Public | 46 | 37 | 112 | 179 | 2,227 | 12 |
| Private | 33 | 27 | 47 | 77 | 882 | 20 |
| Curriculum Type | | | | | | |
| Classical | 64 | 51 | 124 | 206 | 2,553 | 15 |
| Revised | 15 | 13 | 35 | 50 | 556 | 13 |
| * In thousands. | | | | | | |

C. ONGOING CONSTRUCTION AND REMODELING, AND THE POST CONSTRUCTION INVENTORY

1. Extent, Purposes, and Cost

Of the 81 established schools of medicine responding to the survey, 48 indicated that, as of the survey date, they were involved in a construction or remodeling program. The reported programs ranged in size from a few thousand dollars to \$69.7 million (for new construction only); with a high of \$6 million for a single remodeling program. The ongoing new construction activity totalled some 8.2 million GSF at a cost of \$548 million. \$405.4 million or 74% of the total cost was reported to be incurred by the public sector. On the other hand, slightly more than half of the \$50.6 million being invested in remodeling (.95 million NASF) was reported by the schools in the private sector. The distribution (among the various groupings of schools used in the analysis) of the cost and amount of construction effort in progress during the fall of 1973 is detailed in Table 3.II.18.

TABLE 3.II.18
ONGOING NEW CONSTRUCTION AND REMODELING

| | NUMBER OF SCHOOLS | NEW CONSTRUCTION | | | NASF BEING REMOD- ELED (000) | REMOD- ELING COST (\$000) |
|-------------------|-------------------------|------------------|-----------------|------------------------------------|--|------------------------------------|
| | | GSF (000) | COST (\$000) | AVER- AGE COST PER GSF | | |
| TOTAL | 48 | 8,168 | 548,168 | 67 | 945 | 50,591 |
| Size of School | | | | | | |
| Large | 10 | 2,056 | 133,350 | 65 | 263 | 13,293 |
| Medium | 30 | 4,989 | 317,992 | 64 | 589 | 31,437 |
| Small | 8 | 1,123 | 96,826 | 86 | 93 | 5,861 |
| Control | | | | | | |
| Public | 29 | 6,599 | 405,416 | 61 | 530 | 24,327 |
| Private | 19 | 1,569 | 142,752 | 91 | 415 | 26,264 |
| Geographic Locale | | | | | | |
| Innercity | 22 | 4,153 | 323,466 | 78 | 514 | 30,884 |
| Outercity | 22 | 3,711 | 204,121 | 55 | 419 | 19,268 |
| Suburban | 4 | 304 | 20,581 | 68 | 12 | 439 |
| Rural | 0 | 0 | 0 | 0 | 0 | 0 |
| Curriculum Type | | | | | | |
| Classical | 40 | 7,310 | 493,170 | 67 | 803 | 43,126 |
| Revised | 8 | 858 | 54,998 | 64 | 142 | 7,465 |
| Census Region | | | | | | |
| Northeast | 16 | 2,744 | 240,357 | 88 | 277 | 17,245 |
| Northcentral | 12 | 1,489 | 89,849 | 60 | 262 | 15,459 |
| South | 16 | 3,486 | 198,037 | 57 | 384 | 16,803 |
| West | 4 | 449 | 19,925 | 44 | 22 | 1,084 |

In concert with previous discussion indicating that to a great degree the southern census region showed the greatest need for additional facilities, it is interesting to note that it is this same region which exhibited the highest new construction activity level. Forty-eight percent (3.5 million GSF) of the total new construction was reported by the southern schools.

Striking differences arise when the purposes of ongoing construction between the public and private schools are compared. Table 3.II.19 illustrates the emphasis on expanding enrollment by the public schools, as contrasted with the private schools' effort to accommodate current enrollment.

TABLE 3.II.19
PURPOSES OF PUBLIC AND PRIVATE SCHOOLS' ONGOING CONSTRUCTION, FALL, 1973

| | EXPAND ENROLLMENT | RELIEVE OVERCROWDING | REPLACE OBSOLETE SPACE | OTHER | TOTAL* |
|---------|----------------------|-------------------------|------------------------------|-------|--------|
| Public | 40% | 27% | 25% | 8% | 100% |
| Private | 7% | 63% | 8% | 23% | 100% |

* Totals do not sum to exactly 100% due to round-off error.

In view of the fact that previous discussion has shown that on a per student basis, the private sector exhibited 104 NASF per student (over 25%) more space than did the public sector, it may seem paradoxical to find that the private sector attributed the purposes of its new construction much more toward the relief of overcrowding than did the public sector. This paradox is at least partially resolved, however, when we consider that an estimated 3.1 million NASF of "joint-use" space in the public sector, and .9 million NASF of similar space in the private sector may be aggregated with the "controlled" space of concern in the current discussion. The two resultant sums, 12.8 million NASF in the public sector and 8.9 million NASF in the private sector, when divided by these two sectors' respective student populations (FTE) yield aggregates of 458 and 489 NASF per student, respectively. Now if we add, as an estimate of NASF, an amount equal to 1/2 the GSF being built for overcrowding relief, we obtain 489 (public) versus 522 (private) NASF per student in the aggregate. These two values are close enough, for all practical purposes, to be considered the same. Thus, even though the private schools possessed (in the "allocated" sense) more space per student than schools in the public sector, their current construction was not unreasonably oriented toward overcrowding relief.

Differences in purpose of the ongoing construction programs at medical schools are strongly evidenced upon grouping of the schools into the size categories previously described (see Table 3.II.20).

TABLE 3.II.20
PURPOSES OF ONGOING NEW CONSTRUCTION AS A FUNCTION OF
MEDICAL SCHOOL SIZE--FALL, 1973

| | EXPAND ENROLLMENT | RELIEVE OVERCROWDING | REPLACE OBSOLETE SPACE | OTHER PURPOSES | TOTAL* |
|--------|----------------------|-------------------------|------------------------------|-------------------|--------|
| Large | 14% | 35% | 45% | 6% | 100% |
| Medium | 36% | 34% | 17% | 12% | 100% |
| Small | 57% | 29% | 1% | 14% | 100% |

* Totals do not sum to exactly 100% due to round-off error.

As of the survey date, the nation's "small" medical schools appeared to be preparing for growth in enrollment, while the "large" schools were more involved in construction for coping with current enrollment, a need for which was clearly exhibited in the previous discussion regarding the large schools' condition of space in the fall of 1973.

Also noted in this same previous discussion was the fact that the schools of the Southern census region reported the largest amount of space that "required replacement". In viewing these schools' purposes of ongoing construction, it is apparent that very little of this replacement would have been implemented by ongoing construction programs. Specifically, nearly 36% of the 3.5 million GSF of ongoing construction was for enrollment expansion; while over 47% of it was for overcrowding relief. Under 8% of this construction (272,000 GSF) was reported for replacement of obsolete space. With over 600,000 NASF originally reported as "needing replacement", it appears that the Southern schools were not effectively addressing their stated problems with existing construction programs. (See Table 3.II.21). On the other hand, schools in the North-central region have apparently replaced more space than their fall, 1973 minimum requirement.

TABLE 3.II.21

EFFECT OF NEW CONSTRUCTION ON MEDICAL SCHOOLS' REPLACEMENT NEEDS

| | NASF* REPORTED TO NEED REPLACEMENT AS OF FALL, 1973 | ESTIMATED NASF* BEING BUILT FOR REPLACEMENT PURPOSES |
|---------------|---|---|
| TOTAL | 1,320 | 887 |
| Census Region | | |
| Northeast | 484 | 509 |
| Northcentral | 100 | 327 |
| South | 600 | 121 |
| West | 136 | 6 |

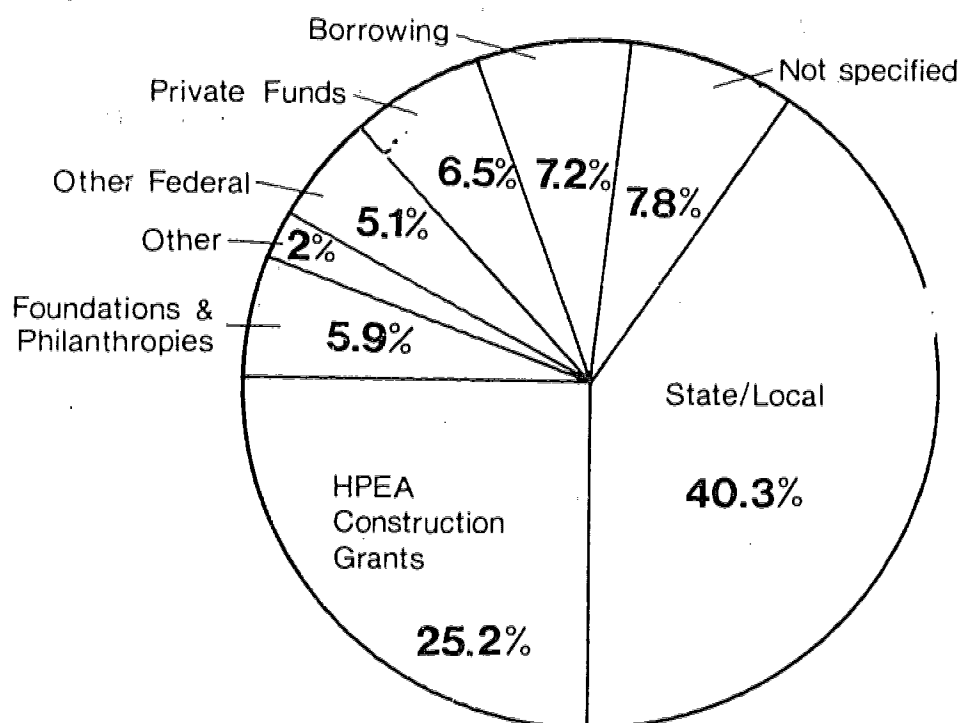
* In Thousands.

It has been stated that as of the survey date, the "desired" space distribution profile (percentages of each type of space) was little different from that which existed. When the ongoing construction is apportioned by type of space, it is apparent that it will engender little change in the space distribution profile as the space under construction approximates the profile. Thus, in sum, the effect of the construction (taken by itself) would be to increase the amount of space of each type in proportion to its representation in the current inventory, rather than causing changes to the size relationships between one room type and another.

2. Sources of Funds for Ongoing Construction and Remodeling Programs

Of the 624.4 million dollars reported by respondents as "committed" to ongoing construction and remodeling efforts, over 40% was contributed by state and local sources, (primarily to schools in the public sector), with HPEA construction grants accounting for another 25% of the total. With approximately 8% of the funds' sources not specified by the respondents, the remaining 27% of the funds were divided approximately equally among private ("own funds"), institute borrowing, philanthropic organizations, and other federal sources (see Figure 3.II.H).

FIGURE 3.II.H
SOURCES OF FUNDS FOR MEDICAL SCHOOLS' ONGOING CONSTRUCTION AND REMODELING
OF NONCLINICAL FACILITIES, FALL, 1973



The primary source of construction funding for schools in the public sector was that of state and local agencies, from which approximately 56% of the \$439.4 million was obtained. Only 3% of the private schools' funds were obtained from similar sources. Nearly 33% of the public schools new construction and remodeling funds were obtained through HPEA construction grants, as opposed to just over 7% of the private sector's funding. (Again, the reader should keep in mind the fact that due to uncorrectable reporting errors, the proportions reported herein would not agree with those computed by using data directly from the Bureau of Health Manpower. Thus, for example, BHM figures show their contribution to medical schools' ongoing construction efforts as \$238.9 million, \$85.7 million to the private schools and \$153.2 million to the public sector. The survey data sums to \$238.3 million, but the apportionment between

private and public is \$40.1 million versus \$198.2 million. The figures reported herein should thus be treated with extreme caution.)

Schools of the private sector do not seem to have had any single (or dual) primary source of funds. Private funds were used for 15% of the 185 million dollars required for supporting the construction programs, while 19 and 14%, respectively, of this total were obtained through private borrowing and philanthropic organizations. Another 17% of the private sector's funding was obtained from federal sources other than those related to Health Professions legislation. In addition, foundations and philanthropies made their greatest impact upon the (4) suburban schools in the West: nearly 36% of these schools' funding was obtained through the latter sources.

Size of school seems to be directly proportional to a school's ability to obtain state and local funding. The pattern here is quite strong: over 74% of the "large" schools' construction funding was from state and local sources; 35% of the "medium" schools', and just over 12% of the "small" schools' funding was from state and local government. Small schools consequently reported a heavier reliance on borrowing than medium or large schools. From the point of view of school size, HPEA construction grants tended to favor the medium and smaller size schools (31 and 22% respectively) while just under 15% of the "large" schools' funding was obtained under the Act.

3. The Effects of Ongoing Construction and Remodeling

In terms of NASF, the net effect of ongoing construction and remodeling would be to increase the medical schools' inventory by 3.23 million NASF, raising their total "controlled" space from 17.7 million to 20.9 million. Table 3.II.22 compares the "pre-construction" and "post-construction" inventories, and reflects the varying activity levels among the various subpopulations of schools used in this analysis. "Percentage increase" is defined as:

$$\frac{\text{post-pre}}{\text{pre}} \times 100$$

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where "post" is defined as "allocated inventory following the completion of ongoing construction and remodeling programs", and "pre" is the allocated inventory as of fall, 1973.

TABLE 3.II.22
COMPARISON OF FALL, 1973 AND PROJECTED POST-CONSTRUCTION INVENTORIES
OF MEDICAL SCHOOLS

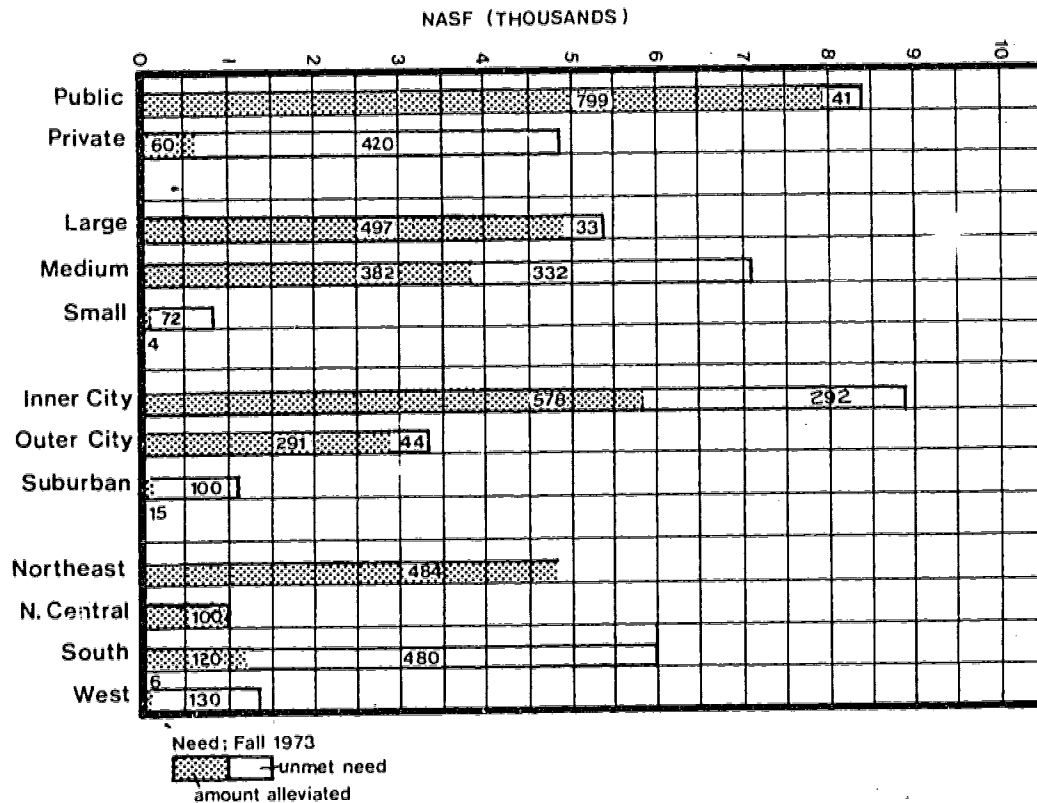
| | NUMBER OF SCHOOLS | FALL 1973 NASF* (1) | POST-CON- STRUCTION NASF* (2) | DIFFERENCE (2) - (1) (3) | % CHANGE (3)-100/(1) |
|-------------------|-------------------------|------------------------------|--|--------------------------------|-------------------------|
| TOTAL | 81 | 17,705 | 20,937 | 3,232 | 18% |
| Size of School | | | | | |
| Large | 17 | 4,464 | 5,086 | 622 | 14% |
| Medium | 44 | 10,337 | 12,369 | 2,032 | 20% |
| Small | 20 | 2,904 | 3,482 | 578 | 20% |
| Control | | | | | |
| Public | 47 | 9,555 | 11,856 | 2,301 | 24% |
| Private | 34 | 8,150 | 9,081 | 931 | 11% |
| Geographic Locale | | | | | |
| Innecity | 39 | 8,020 | 9,807 | 1,787 | 22% |
| Outercity | 32 | 7,933 | 9,328 | 1,395 | 18% |
| Suburban | 9 | 1,644 | 1,694 | 50 | 3% |
| Rural | 1 | 108 | 108 | 0 | 0 |
| Curriculum Type | | | | | |
| Classical | 66 | 14,237 | 17,058 | 2,821 | 20% |
| Revised | 15 | 3,468 | 3,879 | 411 | 12% |
| Census Region | | | | | |
| Northeast | 23 | 5,469 | 6,369 | 900 | 16% |
| Northcentral | 20 | 4,794 | 5,404 | 610 | 13% |
| South | 29 | 5,486 | 7,184 | 1,698 | 31% |
| West | 9 | 1,956 | 1,980 | 24 | 1% |

* In thousands of NASF.

Since just over 4 million NASF of new facilities were reported as being under construction, and the amount of space rented or leased decreased by only 160,000 NASF in total, it is apparent that those new facilities constructed for replacement purposes are replacing owned rather than rented space. By multiplying the percentage of the GSF (under construction) reported to be for replacement

purposes (22%), by the NASF of new construction, we obtain an estimated .89 million NASF of new construction for replacement purposes. It is interesting to compare this figure with that previously reported (that is, as of the survey date) to see how much of, and where, the needs for replacement are being fulfilled. In all, Figure 3.II.I shows that 1.32 million NASF were indicated by respondents as "needing replacement": using the .89 million NASF estimate, we find that 67% of the replacement need is being fulfilled. This percentage becomes widely divergent as we view the various categorizations of schools used previously in this analysis. In the public sector, over 95% of the reported need is being fulfilled by ongoing construction, while the corresponding figure for the private sector is only 13%. As a function of size of school, the percentage of the perceived "replacement" need being fulfilled ranges from just under 94% (for the large schools) down to 5% for the small schools, although in the latter case, Figure 3.II.I shows that this 5% figure is based on a replacement need less than 1/10 of the need for either the large or medium schools. Finally, while the magnitude of the replacement need was similar for the Northeast and Southern census regions (484,000 versus 600,000 NASF, respectively) the former region exhibits an estimated replacement portion of the ongoing construction of 105%; while the 12 schools of the Southern region exhibit a corresponding percentage of only 20%, as previously inferred from Table 3.II.21.

FIGURE 3.II.I
EFFECTS OF ONGOING CONSTRUCTION ON THE 1973 NEED FOR REPLACEMENT SPACE



Fifty-nine of the 81 respondents reported that, upon completion of ongoing construction and remodeling programs, 3.64 million NASF were still perceived as required for accommodation of the enrollment expected at that time. Subtracting 3.64 million from the 4.95 million NASF pre-construction need, it is apparent that, in the aggregate, 27% (1.3 million NASF) of the pre-construction need was to be alleviated by ongoing construction and remodeling efforts as of the survey date. (See Table 3.II.23.)

TABLE 3.II.23

PRE-CONSTRUCTION VERSUS POST-CONSTRUCTION NONCLINICAL NASF NEEDED

| | NUMBER OF SCHOOLS REPORTING A NEED (1) | PRE-CON- STRUCTION NASF NEEDED (2) | POST-CON- STRUCTION NASF NEEDED (3) | % ALLEVIATED (3)x100/(2) (4) |
|-------------------|--|---|--|------------------------------------|
| TOTAL | 59 | 4,949 | 3,636 | 27% |
| Size of School | | | | |
| Large | 16 | 1,220 | 736 | 40% |
| Medium | 33 | 3,116 | 2,353 | 24% |
| Small | 10 | 613 | 547 | 11% |
| Control | | | | |
| Public | 33 | 2,804 | 1,884 | 33% |
| Private | 26 | 2,145 | 1,752 | 18% |
| Geographic Locale | | | | |
| Innercity | 30 | 2,424 | 1,672 | 31% |
| Outercity | 23 | 1,933 | 1,450 | 25% |
| Suburban | 5 | 553 | 475 | 14% |
| Rural | 1 | 39 | 39 | 0% |

As may be seen above, schools in the public sector reported that more of the pre-construction need was alleviated on a percentage basis than was true for the schools in the private sector. In terms of numbers of NASF, however, the remaining need is shared equally by the two sectors.

On a percentage basis, the impact of ongoing construction and remodeling on the pre-construction need is directly proportional to size of school. In the case of the small schools, it is apparent that the vigorous enrollment growth anticipated for the post-construction period is expected to greatly offset the space increases provided by their construction programs.

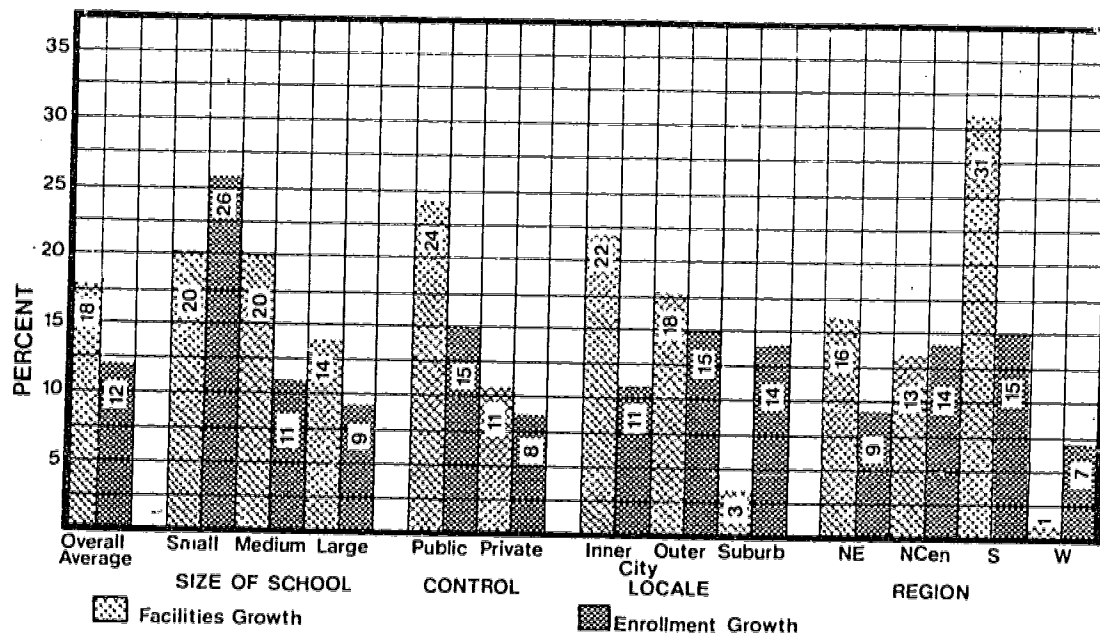
4. The Post Construction Student Population

The "post-construction period" was defined in part 2 of this report as, essentially, "that time period following the completion of all ongoing (as of fall, 1973) construction and remodeling efforts, given that at the completion of each schools' separate effort no subsequent changes to faculty, facilities,

or enrollment occurred". With the inherent assumptions of this definition in mind, then, we find that the difference between the FTE enrollment as of the survey date and the FTE enrollment "following the completion of ongoing construction and remodeling" is 12%; with the respondents projected aggregate enrollment increasing from 45.5 to 51.1 thousand students. The most vigorous growth rate is exhibited by the "small" schools (26%), with the large and medium schools reporting aggregate growth rates of 9% and 11%, respectively. Schools of the public sector indicate an enrollment growth approximately twice that of those schools in the private sector: 15% versus 8%. The latter figures are representative of an even more widely divergent enrollment expansion in the absolute, however, since the public sector in the fall of 1973 had 50% more students than were enrolled in schools of the private sector.

In comparing the two brief analyses of facilities and enrollment growth, and summarizing them in Figure 3.II.J, it is found that notwithstanding the fact that each categorization of respondents reported some degree of overcrowding, there are a number of cases in which the percentage of enrollment growth exceeds the percentage increase in the size of the aggregate facilities inventory. Thus, while the suburban schools indicated an enrollment increase of 14%, the projected percentage increase in their overall facilities configuration was only 3%. Similarly, while the schools in the western census region indicated a limited enrollment growth of only 7%, this latter figure far exceeded the net facilities expansion resulting from ongoing construction and remodeling (1%). Finally, the "small" schools will be recalled to have indicated a 26% enrollment expansion: the 20% facilities expansion barely keeps pace with the latter period. On the other hand, the typical situation is one in which the facilities expansion percentage more than compensates for the enrollment increase. From this standpoint, the most notable case is that of the southern schools, in which a 31% projected facilities expansion outstrips the 15% enrollment growth factor, while the inner-city schools (typically a problem area in the sense of overcrowding) show an aggregate 22% increase in facilities to more than offset the anticipated 11% enrollment increase.

FIGURE 3.II.J
COMPARISON OF PRE- TO POST-CONSTRUCTION FACILITIES AND ENROLLMENT GROWTH



While the above kinds of comparisons are useful to the extent that they offer some degree of insight into the dynamics of the medical education arena, it is important to always bear in mind that the concept of a "post-construction period" is artificial and that many changes probably will take place over the period during which the various construction and remodeling programs of respondents are completed. That this period will not be brief is indicated by the fact that 6 of the 32 respondents indicating the existence of some construction program in 1973 revealed that these programs would not be complete until some time beyond 1977. Furthermore, it must be realized that as time progresses, the combination of changing educational concepts and improvements in construction methods may contribute to significant differences between that which respondents predicted and that which ultimately evolves upon the actual completion of a given program.

TABLE 3.V.9
THE BALANCING EFFECT (ON STATIONS PER STUDENT) OF JOINT-USE SPACE

| | CLASSROOMS | | CLASS LABORATORIES | |
|--|------------|---------|--------------------|---------|
| | PUBLIC | PRIVATE | PUBLIC | PRIVATE |
| Student stations* in controlled space | 7,828 | 5,059 | 11,534 | 5,984 |
| Student stations** available in joint-use space | 33,084 | 5,567 | 7,187 | 2,175 |
| (Deduct) Controlled stations used by other schools | 3,940 | 96 | 421 | 182 |
| Total Stations | 36,972 | 10,570 | 18,300 | 7,977 |
| FTE Enrollment | 18,327 | 7,301 | 18,327 | 7,301 |
| Student stations+ per student | 2.0 | 1.5 | 1.0 | 1.1 |

* For those schools reporting students and stations.

** By definition, these stations may be available only one hour per week.

+ Compare with Figure 3.V.C.

b. Usage of Classrooms

Fifty-one percent of respondents' classroom space was primarily devoted to instruction in the basic biological sciences; with 16% of the space devoted to instruction in the clinical sciences, and the remaining 33% of mixed usage. With minor exceptions, these proportions tend to hold regardless of the grouping of respondents.

The average classroom was used 655 hours out of the academic year. Small schools, at 511 hours, were substantially below the average. When the schools are grouped by control, public schools are slightly above the mean, while private schools are somewhat below it. We note also that grouping of the schools by "curriculum type" seems to show that the existence of a clinical teaching component has almost no impact on the usage of classrooms.

Table 3.V.10 arrays mean and total usage against total room availability, with the room utilization percentage, computed as described in Appendix G,

displayed in the final column. As was noted in PART 1, the latter figures should be treated with caution--and their relative rather than absolute magnitudes studied. In brief, "utilization" is herein taken to imply the percentage ratio of:

$$\frac{\text{resource hours used}}{\text{resource hours available}},$$

whether the resource be rooms or student stations. Resource hours available" should theoretically be computed as "length of academic year (in hours)" times "number of rooms or student stations available for use." For comparability among the schools, we have substituted 2,080 hours for the reported "length of academic year". Since 2,080 is typically larger than the reported length, the computed utilization percentages are, on average, depressed to some degree.

TABLE 3.V.10
USAGE OF CLASSROOMS, SCHOOLS OF PHARMACY--FALL, 1973

| | NUMBER OF SCHOOLS | MEAN HOURS PER ROOM PER YEAR | TOTAL* HOURS OF USAGE (000) | TOTAL** HOURS AVAILABLE (000) | COMPUTED UTILIZATION % |
|-------------------|-------------------------|------------------------------------|--------------------------------------|--|------------------------------|
| TOTAL | 46 | 655 | 134 | 456 | 32 |
| Size of School | | | | | |
| Large | 13 | 679 | 54 | 181 | 31 |
| Medium | 21 | 690 | 61 | 193 | 35 |
| Small | 12 | 511 | 18 | 81 | 26 |
| Control | | | | | |
| Public | 34 | 687 | 89 | 287 | 34 |
| Private | 12 | 598 | 45 | 168 | 27 |
| Geographic Locale | | | | | |
| Innercity | 16 | 618 | 38 | 144 | 28 |
| Outercity | 24 | 663 | 78 | 258 | 33 |
| Suburban | 3 | 434 | 5 | 23 | 21 |
| Rural | 3 | 896 | 13 | 31 | 44 |
| Curriculum Type | | | | | |
| Classical | 18 | 690 | 54 | 179 | 31 |
| Revised | 28 | 633 | 80 | 277 | 32 |

* Over all rooms, both allocated and joint-use.

** Number of rooms at all schools x 2,080.

Room utilization computations, performed for those 46 schools for whom data were complete, averaged 32% for classrooms as seen in column 8 of the above table. This figure is seen to be primarily a function of usage in the public sector, since public schools, as a group, reported 34% in contrast to the 27% exhibited by privately controlled schools. Although not well reflected by the "average hours per room per year" figures previously noted, it is found that the percentage of room utilization ranges from 21% to 44% as a function of locale of school.

In view of the fact that joint-usage of facilities plays a major role in the operation of many pharmacy schools, Table 3.V.11 displays the reported joint-usage "in both directions". As may be seen, pharmacy schools represent a much larger loading on facilities not controlled by them than do the students of other professions upon pharmacy-controlled facilities.

TABLE 3.V.11
JOINT-USAGE OF PHARMACY SCHOOLS' CLASSROOMS

| | ROOM HOURS "BORROWED" BY PHARMACY SCHOOLS (1) | "CONTROLLED" ROOM HOURS "LENT" BY PHARMACY SCHOOLS (2) | NET (1) - (2) (3) | "CONTROLLED" ROOM HOURS USED BY PHARMACY (4) | RATIO (1)/(4) (5) |
|----------------|---|---|-------------------------|--|-------------------------|
| TOTAL | 86,599 | 9,668 | 76,931 | 134,192 | .64 |
| Size of School | | | | | |
| Large | 28,990 | 1,236 | 27,754 | 54,336 | .53 |
| Medium | 42,829 | 6,014 | 36,815 | 61,457 | .70 |
| Small | 14,780 | 2,418 | 12,362 | 18,399 | .80 |
| Control | | | | | |
| Public | 76,897 | 9,476 | 67,421 | 89,372 | .86 |
| Private | 9,702 | 192 | 9,510 | 44,820 | .22 |

The ratio of joint-use to "controlled" hours is quite large in all groupings analyzed. As might be predicted, the multi-school setting typically associated with the public university campus contributes to a 4-to-1 joint-usage differential between publicly and privately controlled schools (see column 5 in Table 3.V.11).

Classroom student station utilization figures averaged 31% for the 60 schools for whom station utilization rates (occupancy rates) could be computed using the method detailed in Appendix G. On a 2,080 hour base, the average station was occupied anywhere from 6% to 129% of the time. Again, schools in the public sector showed only a marginally greater aggregate utilization percentage than those in the private sector (32% versus 30%), and the two values may be considered equal. Table 3.V.12 displays these percentages, and the "raw material" involved in their computation.

TABLE 3.V.12
PHARMACY SCHOOLS' CLASSROOM STUDENT STATION UTILIZATION--FALL, 1973

| | STUDENT HOURS* SPENT IN ANY CLASSROOM (1) | STATION- HOURS* UTILIZED IN NON- CONTROLLED CLASSROOMS (2) | CONTROLLED STATION- HOURS* AVAILABLE (3) | CONTROLLED STATION- HOURS* USED BY NON-PHAR- MACY (4) | $\frac{(1)+(4)}{(2)+(3)} \times 100$ = % STATION UTILIZATION (5) |
|-------------------|--|--|--|---|---|
| TOTAL | 10.4 | 8.6 | 26.5 | .6 | 31 |
| Size of School | | | | | |
| Large | 4.9 | 2.4 | 12.2 | .1 | 34 |
| Medium | 4.3 | 5.1 | 12.3 | .3 | 29 |
| Small | 1.2 | 1.1 | 3.3 | .1 | 27 |
| Control | | | | | |
| Public | 6.9 | 7.6 | 17.8 | .6 | 32 |
| Private | 3.4 | 1.0 | 8.1 | .0 | 30 |
| Geographic Locale | | | | | |
| Innecity | 4.3 | 3.8 | 10.0 | .1 | 35 |
| Outercity | 5.0 | 3.6 | 13.0 | .4 | 29 |
| Suburban | .4 | .7 | 1.3 | .0 | 21 |
| Rural | .7 | .5 | 1.6 | .0 | 34 |
| Curriculum Type | | | | | |
| Classical | 5.1 | 2.9 | 10.6 | .1 | 36 |
| Revised | 5.3 | 5.7 | 15.4 | .5 | 28 |

* In millions.

c. Class Laboratory Utilization

Pharmacy-controlled class laboratories were used 526 hours per year on the average, with special-purpose class laboratories typically used fewer hours per year than general purpose labs (431 versus 559). In parallel with Table 3.V.10, Table 3.V.13 outlines class laboratory usage (with general and special purpose labs combined due to data constraints).

TABLE 3.V.13
USAGE OF CLASS LABORATORIES, SCHOOLS OF PHARMACY--FALL, 1973

| | NUMBER OF SCHOOLS | MEAN HOURS PER ROOM PER YEAR | TOTAL* HOURS OF USAGE (000) | TOTAL** HOURS AVAILABLE (000) | COMPUTED UTILIZATION % |
|-------------------|-------------------------|------------------------------------|--------------------------------------|--|------------------------------|
| TOTAL | 46 | 526 | 249 | 988 | 25 |
| Size of School | | | | | |
| Large | 13 | 512 | 104 | 424 | 25 |
| Medium | 21 | 598 | 99 | 343 | 29 |
| Small | 12 | 440 | 47 | 220 | 21 |
| Control | | | | | |
| Public | 34 | 498 | 173 | 670 | 24 |
| Private | 12 | 587 | 88 | 318 | 28 |
| Geographic Locale | | | | | |
| Innecity | 16 | 599 | 90 | 320 | 28 |
| Outercity | 24 | 461 | 118 | 526 | 23 |
| Suburban | 3 | 406 | 17 | 85 | 20 |
| Rural | 3 | 916 | 25 | 56 | 44 |
| Curriculum Type | | | | | |
| Classical | 18 | 519 | 121 | 489 | 25 |
| Revised | 28 | 533 | 128 | 499 | 26 |

* Over all rooms, both allocated and joint-use.

** Number of rooms at all schools x 2,080.

As may be seen in the above table, mean usage tended to parallel that for classrooms, except that in the current instance, the private schools have a higher mean usage than those of the public sector.

Joint-usage of class laboratories was five times less than it was for classrooms, although the joint-usage reported was still substantial (see Table 3.V.14, and compare with Table 3.V.11).

TABLE 3.V.14
JOINT-USAGE OF PHARMACY SCHOOLS' CLASS LABORATORIES--FALL, 1973

| | ROOM HOURS "BORROWED" BY PHARMACY SCHOOLS (1) | "CONTROLLED" ROOM HOURS "LENT" BY PHARMACY SCHOOLS (2) | NET (1) - (2) (3) | "CONTROLLED" ROOM HOURS USED BY PHARMACY (4) | RATIO (1)/(4) (5) |
|----------------|---|---|-------------------------|--|-------------------------|
| TOTAL | 31,464 | 2,133 | 29,331 | 249,387 | .13 |
| Size of School | | | | | |
| Large | 10,599 | 67 | 10,532 | 104,013 | .10 |
| Medium | 16,926 | 1,696 | 15,230 | 98,746 | .17 |
| Small | 3,939 | 370 | 3,569 | 46,628 | .08 |
| Control | | | | | |
| Public | 23,961 | 967 | 22,994 | 173,312 | .14 |
| Private | 7,503 | 1,166 | 6,337 | 88,075 | .09 |

Student station utilization in class laboratories ranged between 4% and 125%, for individual schools, using the computational approach described in Appendix H. Schools of the public sector exhibited a higher utilization percentage than privately controlled schools (17% versus 12%); a fact notable because public schools' joint usage was greater than that of their private counterparts. That is, from Table 3.V.14 may be seen that (in column 5) the ratio of "borrowed" to "allocated" or "controlled" room hours is .14 (14%) versus .09. Since this figure is an addition to the denominator of the utilization formula, it tends, as a correction factor, to depress the public schools' utilization ratio more than it depresses that for the private schools.

Table 3.V.15 contains the station utilization averages for various groupings of pharmacy schools. They are, in general, much lower than the corresponding classroom percentages, even though the "mean hours of usage per year" for classrooms and laboratories differ by less than 25%.

TABLE 3.V.15
PHARMACY SCHOOLS' CLASS LABORATORY STUDENT STATION UTILIZATION--FALL, 1973

| | STUDENT HOURS* SPENT IN ANY CLASSLAB | CONTROLLED* STATION-HOURS AVAILABLE | % STATION UTILIZATION |
|-------------------|--|---|--------------------------|
| TOTAL | 5.5 | 34.4 | 16 |
| Size of School | | | |
| Large | 2.4 | 14.5 | 16 |
| Medium | 2.5 | 13.5 | 18 |
| Small | .7 | 6.4 | 11 |
| Control | | | |
| Public | 4.1 | 22.6 | 17 |
| Private | 1.4 | 11.9 | 12 |
| Geographic Locale | | | |
| Innercity | 2.1 | 12.9 | 16 |
| Outercity | 2.7 | 18.0 | 15 |
| Suburban | .2 | 1.8 | 12 |
| Rural | .4 | 1.9 | 23 |
| Curriculum Type | | | |
| Classical | 2.5 | 14.8 | 16 |
| Revised | 3.0 | 19.7 | 15 |

* In millions.

d. Faculty Offices

Faculty office space per full-time-equivalent teaching faculty member was reported to vary from 43 to 270 NASF on a school-by-school basis, with a mean of 123. Public and private schools reported approximately equal averages, notwithstanding the issue of joint-use space availability (see Table 3.V.16).

TABLE 3.V.16

PHARMACY SCHOOLS' FACULTY OFFICE SPACE PER FTE FACULTY MEMBER--FALL, 1973

| | NUMBER OF SCHOOLS REPORTING FACULTY | NASF OF OFFICE SPACE (000) | NUMBER OF FTE FACULTY | NASF PER FACULTY |
|-------------------|--|-------------------------------------|-----------------------------|---------------------|
| TOTAL | 63 | 202 | 1,647 | 123 |
| Size of School | | | | |
| Large | 17 | 77 | 555 | 139 |
| Medium | 31 | 93 | 861 | 108 |
| Small | 15 | 32 | 231 | 139 |
| Control | | | | |
| Public | 47 | 155 | 1,278 | 121 |
| Private | 16 | 47 | 369 | 127 |
| Geographic Locale | | | | |
| Innecity | 25 | 68 | 681 | 100 |
| Outercity | 32 | 118 | 824 | 143 |
| Suburban | 3 | 9 | 64 | 141 |
| Rural | 3 | 7 | 78 | 90 |

C. ONGOING CONSTRUCTION AND REMODELING, AND THE POST-CONSTRUCTION INVENTORY OF NONCLINICAL INSTRUCTION FACILITIES

1. Extent, Purposes, and Cost

As of the survey date, seventeen schools of pharmacy indicated their involvement in a construction or remodeling program. Ranging in size up to \$7.6 million for a single school, these programs represent the construction of some .57 million GSF of new facilities. Two thirds of the reported construction costs and five sixths of the remodeling costs were being incurred by schools in the public sector.

TABLE 3.V.17
OVERVIEW OF ONGOING CONSTRUCTION AND REMODELING AT PHARMACY SCHOOLS--FALL, 1973

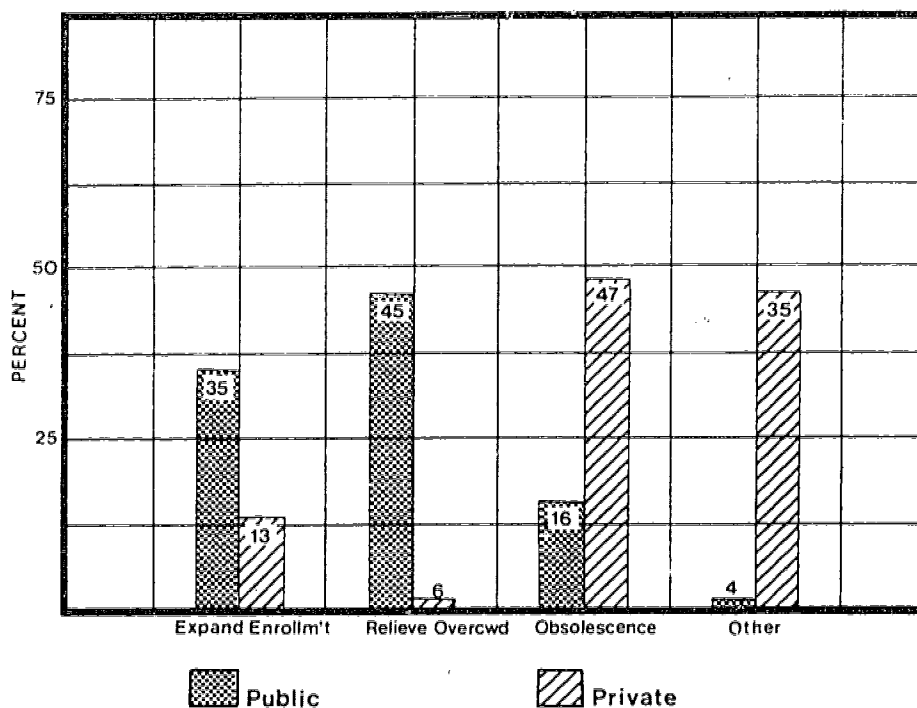
| | NEW CONSTRUCTION | | | | REMODELING | | |
|-------------------|-------------------|-----------|--------------|----------------------|-------------------|------------|--------------|
| | NUMBER OF SCHOOLS | GSF (000) | COST (\$000) | AVERAGE COST PER GSF | NUMBER OF SCHOOLS | NASF (000) | COST (\$000) |
| TOTAL | 17 | 569 | 22,492* | 40* | 11 | 44 | 580 |
| Size of School | | | | | | | |
| Large | 4 | 0 | -- | -- | 4 | 14 | 132 |
| Medium | 7 | 310 | 16,611 | 54 | 4 | 18 | 391 |
| Small | 6 | 259 | 5,881 | 23 | 3 | 12 | 57 |
| Control | | | | | | | |
| Public | 13 | 425 | 13,790 | 32 | 9 | 39 | 485 |
| Private | 4 | 144 | 8,702 | 60 | 2 | 5 | 95 |
| Geographic Locale | | | | | | | |
| Innecity | 7 | 318 | 18,457 | 58 | 4 | 24 | 223 |
| Outercity | 7 | 171 | 35* | * | 5 | 16 | 162 |
| Suburban | 1 | 0 | -- | -- | 1 | 1 | 15 |
| Rural | 2 | 80 | 4,000 | 50 | 1 | 3 | 180 |

* A number of respondents omitted the cost of their ongoing new construction programs. These figures are, thus, spuriously low, and all "dollars per GSF" figures should be treated with extreme caution.

Those eight schools reporting an ongoing construction program indicated that 29% of the new space was being built for the purposes of enrollment expansion; 35% was being constructed for the relief of overcrowding; and one of every four

new GSF were being built for the replacement of obsolete space. Grouping the respondents into the kinds of categories utilized in previous analysis, and recognizing the small sample sizes which result, we find diametrically opposed purposes of new construction in the public and private sectors. As seen in the figure, obsolescence was the key purpose of construction for the private schools, while the publicly controlled schools cited enrollment expansion and overcrowding relief.

FIGURE 3.V.D
PHARMACY SCHOOLS' PURPOSES OF ONGOING CONSTRUCTION

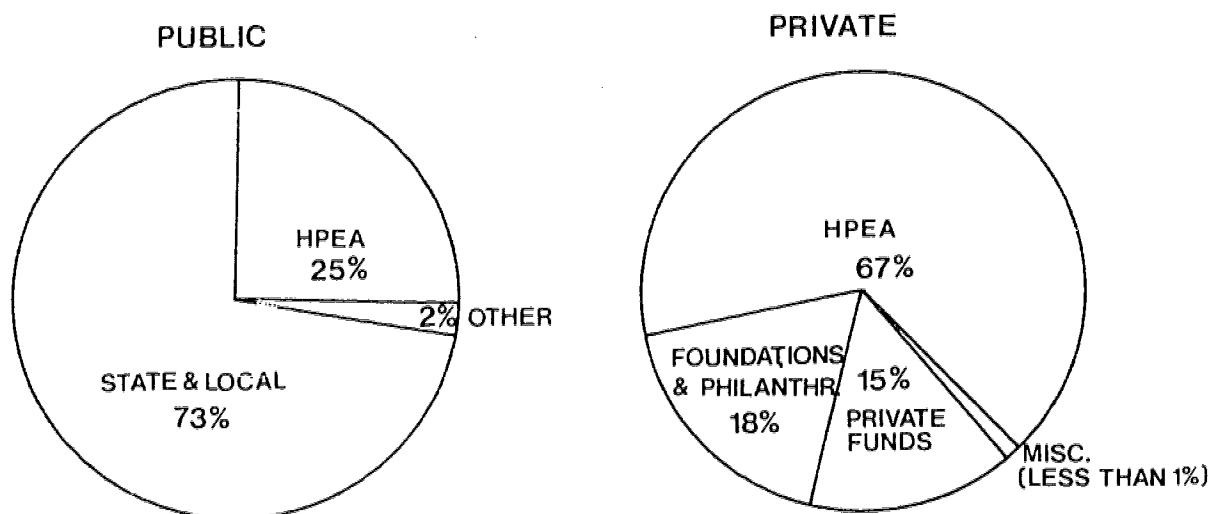


Differences in purpose of the ongoing construction programs are also a function of school size. With the large schools reporting no construction at all, the medium-sized schools estimated that over 40% of the construction was for replacing obsolete space; while only a small portion of the smaller schools' construction was for these purposes, but was focused more upon overcrowding relief.

2. Sources of Funds for Ongoing Construction and Remodeling Programs

Of the 23.1 million dollars reported by respondent as "fully authorized" for ongoing construction and remodeling efforts (a spuriously low total due to an occasional failure to report the costs of ongoing construction) over 40% was contributed by state and local sources (all of it to schools in the public sector), with HPEA construction grants accounting for another 41% of the total. While the majority (62%) of the HPEA grants were to publicly controlled schools, these grants represented the majority of the private schools' funding (see Figure 3.V.E).

FIGURE 3.V.E
SOURCES OF FUNDS FOR ONGOING CONSTRUCTION



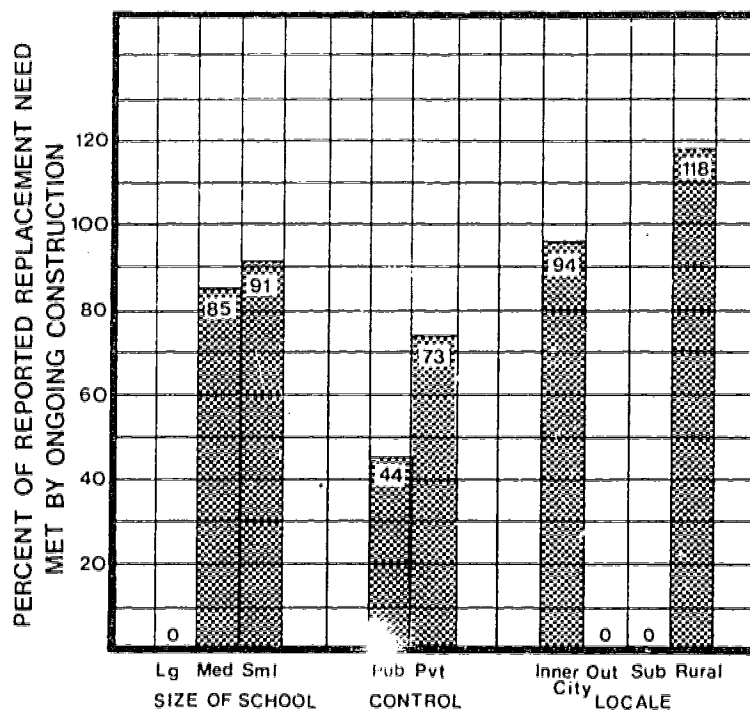
3. The Effects of Ongoing Construction and Remodeling

The net effect of ongoing construction and remodeling would be to increase the pharmacy schools' inventory of nonclinical instruction facilities to 2.2 million NASF. Since facilities replacement appeared to be one of the primary purposes in a number of instances of the ongoing construction, it is worthwhile to estimate the NASF of new construction for replacement purposes. We do

this by multiplying respondents' reported percentage of the GSF (under construction) for replacement purposes by the NASF of new construction. We now compare this figure with that perceived as needing replacement as of the survey date to see where the needs for replacement are or are not being fulfilled.

In all, 140,000 NASF of the fall, 1973 inventory were indicated as "needing replacement": using the computational approach described above, we obtain an estimated NASF (being replaced) of 80,000 NASF, 56% of the need. This percentage is highly variable as a function of control and locale, and, with the exception of large schools, is constant for the "size of school" categorization (see Figure 3.V.F).

FIGURE 3.V.F
THE EFFECT OF ONGOING CONSTRUCTION ON
THE PHARMACY SCHOOLS' PERCEIVED REPLACEMENT NEEDS AS OF FALL, 1973

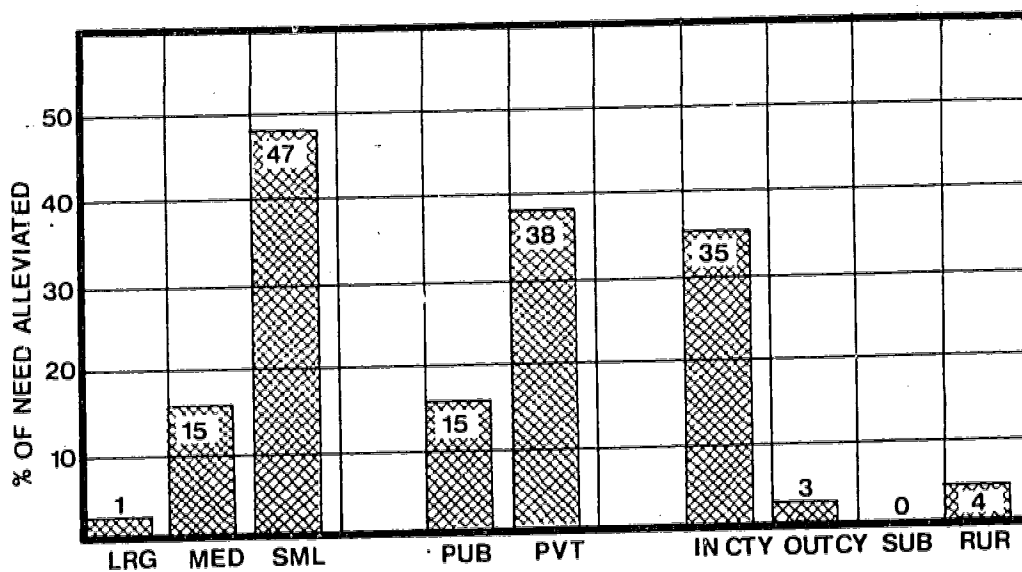


300

It has been stated that the "desired" space distribution profile was different only in minor respects from that which existed in the fall of 1973. When the ongoing construction is apportioned by type of space, it is apparent that it will engender little change in the space distribution profile as the construction itself approximates the profile. For the respondent schools of pharmacy as a whole, then, the effect of the construction will be to increase the amount of space of each type in proportion to its representation in the fall, 1973 inventory, rather than to change the size relationships between one room type and another.

Overall, these programs will add under 1 Net Assignable Square Foot per student. It is thus not surprising to find that the need for additional facilities, as perceived in the fall of 1973, has only been alleviated by 18% through ongoing construction and remodeling efforts. On the other hand, the alleviated need (the difference between the needs perceived as of the survey date and those projected as of the completion of ongoing construction and remodeling programs) fluctuates with size, control, and locale of school (see Figure 3.V.G).

FIGURE 3.V.G
OVERALL NEED ALLEVIATED BY ONGOING CONSTRUCTION



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While it has been noted that the NASF per student figures change only slightly as a result of ongoing construction programs, it is also true that the enrollment figures used in the denominator of the computations are based on the respondents' projected enrollment following completion of these efforts. We must, therefore, consider the fluctuation in the enrollment figures themselves.

4. The Post-Construction Student Population

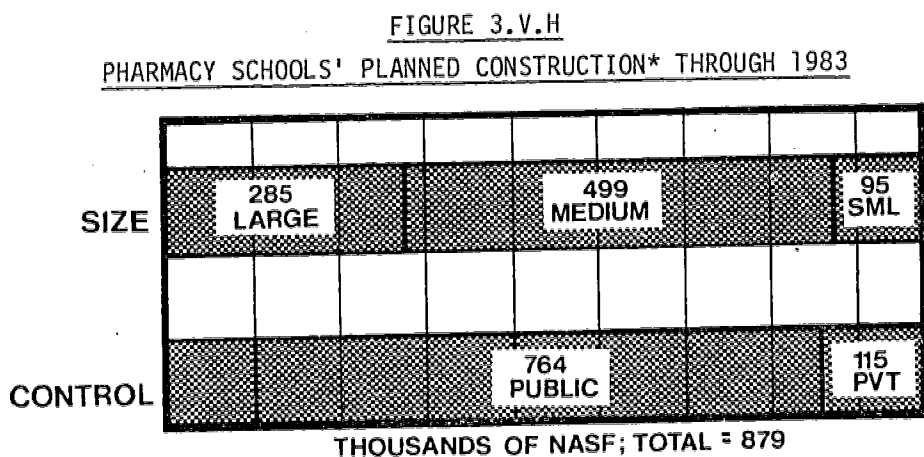
With the admittedly strong assumptions underlying our definition of "post-construction period" in mind, we find that the increase between the FTE enrollment as of the survey date and the FTE enrollment "following the completion of ongoing construction and remodeling" is just under 6%, with the respondents' projected aggregate enrollment increasing to 27,100 students. As is apparent in Table 3.V.18, the most vigorous growth rate is exhibited by the "small" schools; while the public and private schools indicate equal enrollment growth. In most cases, the percentage expansion in facilities outstrips the percentage growth in enrollment -- thereby relieving to some degree, the overcrowding problem perceived as of the survey date.

TABLE 3.V.18
COMPARISON OF PROJECTED ENROLLMENT AND FACILITIES GROWTH RATES

| | NASF (000) FALL, 1973 | NASF (000) "POST- CONSTRUC- TION" | % CHANGE IN NASF | FTE EN- ROLLMENT FALL, 1973 | FTE EN- ROLLMENT POST-CON- STRUCTION | % CHANGE IN EN- ROLLMENT |
|-------------------|--------------------------------|---|---------------------------|--------------------------------------|---|-----------------------------------|
| TOTAL | 2,016 | 2,177 | 8 | 25,628 | 27,144 | 6 |
| Size of School | | | | | | |
| Large | 818 | 772 | -6 | 11,346 | 11,772 | 4 |
| Medium | 892 | 1,011 | 13 | 11,340 | 12,099 | 7 |
| Small | 306 | 394 | 29 | 2,942 | 3,273 | 11 |
| Control | | | | | | |
| Public | 1,502 | 1,615 | 8 | 18,327 | 19,402 | 6 |
| Private | 514 | 562 | 9 | 7,301 | 7,742 | 6 |
| Geographic Locale | | | | | | |
| Innecity | 714 | 790 | 11 | 9,048 | 9,845 | 9 |
| Outercity | 1,112 | 1,173 | 5 | 14,133 | 14,544 | 3 |
| Suburban | 103 | 104 | 1 | 1,221 | 1,311 | 7 |
| Rural | 87 | 110 | 26 | 1,226 | 1,444 | 18 |

D. THE 1983 LOOK AHEAD

Twenty-three pharmacy schools indicated plans for the construction of 879,000 NASF of facilities during the period between the completion of their ongoing construction and remodeling programs and the fall of 1983. As might be anticipated based on previous discussion of "medium-sized schools" and schools of the public sector, the bulk of this new construction was reported by these two overlapping groups (see Figure 3.V.H).

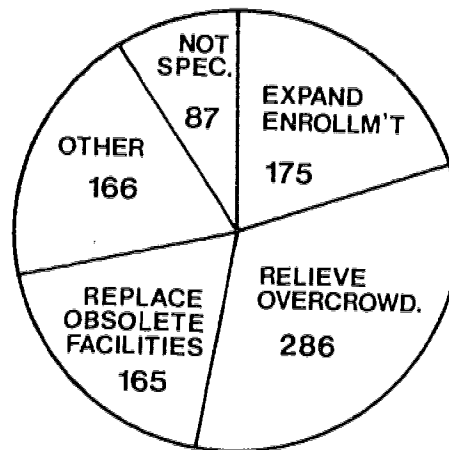


* Includes "on-site patient care" and "other" facilities.

Although planned remodeling was reported to a much lesser extent (170,000 NASF), all of it was reported by 12 publicly controlled schools; and 73% of it was reported by the schools of "medium" size.

As can be seen in Figure 3.V.I, the purposes of the construction planned by respondents through academic year 1983 were nearly equivalent, in percentage terms, over three of the four "purposes" defined by the instrument. Overcrowding relief was the lone exception. On a school-size by school-size basis, the percentage of new construction for enrollment expansion is nearly doubled for each successively decreasing size category: large schools indicated 11%, while medium and small schools indicated 22% and 38%, respectively.

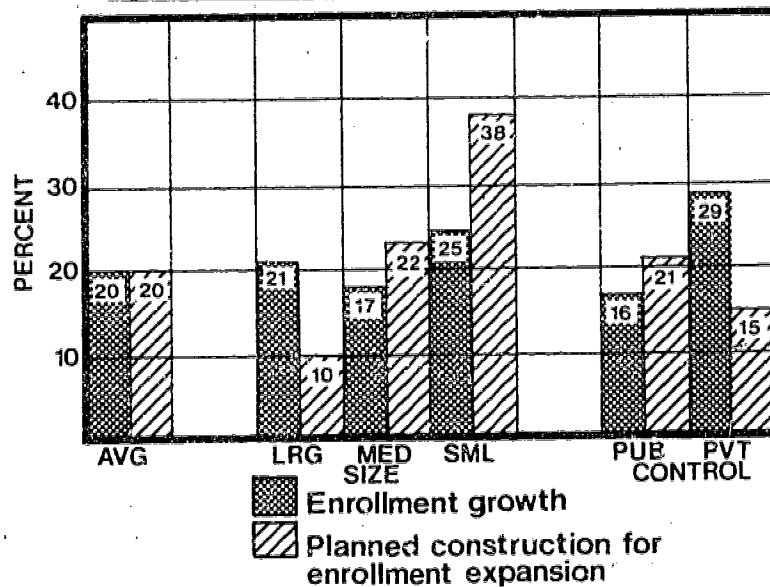
FIGURE 3.V.I
PLANNED PURPOSES OF CONSTRUCTION OF
NONCLINICAL INSTRUCTION FACILITIES* THROUGH 1983



* In thousands of NASF.

The very strong pattern of percentages of ongoing construction for expansion of enrollment among the various school size categories does not match the reported projections of increase in enrollment through 1983. In fact, a number of mismatches appear in an overlay (see Figure 3.V.J) of enrollment growth versus new construction for enrollment expansion purposes. In view of the overcrowding problem already becoming apparent to respondents, these mismatches between apparent needs and projected construction purposes are liable to engender a realignment of plans in the coming decade, given that the enrollment increases are to become a reality.

FIGURE 3.V.J
COMPARISON OF ENROLLMENT GROWTH AND FACILITIES TO BE
BUILT FOR ENROLLMENT EXPANSION THROUGH 1983



The "mismatches" referenced above are most obvious for large schools, and for schools in the private sector. Table 3.V.19 displays, for these and other groups, the changes in NASF per student expected to occur between fall, 1973 and academic year 1983.

TABLE 3.I.19
CHANGES IN NASF PER STUDENT, SCHOOLS
OF PHARMACY, 1973-1983

| | NASF PER STUDENT-- FALL, 1973 | NASF PER STUDENT-- POST-CONSTRUCTION | NASF PER STUDENT-- 1983 |
|----------------|----------------------------------|---|----------------------------|
| TOTAL | 86 | 89 | 94 |
| Size of School | | | |
| Large | 83 | 80 | 73 |
| Medium | 82 | 88 | 106 |
| Small | 108 | 121 | 125 |
| Control | | | |
| Public | 87 | 90 | 105 |
| Private | 83 | 86 | 69 |

E. INVENTORY OF INSTRUCTIONAL RESOURCES IN CLINICAL FACILITIES--FALL, 1973

1. Description

The 240,000 NASF of nonclinical instruction facilities found in pharmacy schools' major clinical affiliates represent nearly a 12% addition to the similar facilities controlled by those schools. Of the 66 hospitals and clinics reported, 45 made such facilities available for academic purposes, while 44 were used for training relating to ambulatory care and all were reported as used with relation to inpatient care. Recognizing that the typical pharmacy curriculum does not "utilize" inpatients and outpatients with the degree of intensity of, e.g., a medical school curriculum, the advent of the health care team concept (including a pharmacist) and, less directly, training in a hospital pharmacy implies that the size (number of beds in a hospital) is becoming an increasingly germane measure of teaching resources in the pharmacy context.

Along these lines, pharmacy schools reported that, as major components in their education program, clinical affiliates represented 16,700 beds with an ADPL of 14,200. With regard to ambulatory care facilities, an aggregate of over 900,000 outpatient visits per year were reported -- which may, to a large extent, represent reporting of prescriptions filled. "Prescriptions filled" is, however, not the sole measure of outpatient training: respondents indicated that nearly 550 examining and treatment rooms -- 675 ambulatory patient stations in all -- were available for pharmacy students' use. Most of these resources were used by those schools of pharmacy considered by the researchers to have offered a "revised" curriculum (and most of the latter schools were publicly controlled).

With regard to the "nonclinical instruction facilities" in these clinical areas, it appears that they basically offered classroom, laboratory, library, and auditorium space (about 20% of the total for each type) with very minor percentages of the other room types reported. As would be anticipated from the above discussion, nearly 90% of these facilities were used by those schools offering "revised" curricula.

Adequacy of Nonclinical Instruction Facilities in Clinical Areas

a. Condition

Respondents reported that approximately 68% (166,000 NASF) of the current inventory of nonclinical facilities in clinical settings were "satisfactory for program purposes". Of the unsatisfactory space, well over half (56%) needed remodeling; while the remainder, some 20,000 NASF, required replacement. The percentage of satisfactory space was lowest in the public schools (66%) and the innercity locales (59%).

b. Instructional Facilities Needed in Clinical Settings

68,000 NASF of nonclinical instruction facilities were available at those 26 clinical associates reporting a need for additional space. An additional 80,000 NASF were perceived as needed, 38,000 of which were reported to be for relief of overcrowding. Twenty-five of the clinics representing 95% of the need, were reported by publicly controlled schools.

As we analyze each of the room types delineated by the survey instrument, we find that, for the 26 clinics in question, respondents wished to more than double the available square footage of administrative offices, and to increase by many times, the available research and research training space, and faculty offices (see Table 3.V.20). While the numbers of NASF involved were not large for any given room-type, the large factor by which these pharmacy schools desired to expand the facilities gives insight into the degree to which the needs were felt.

TABLE 3.V.20
PHARMACY SCHOOLS' PERCEIVED NEEDS FOR INSTRUCTIONAL FACILITIES
IN CLINICAL AREAS

| | NASF* AVAILABLE AT CLINICS RE- PORTING A NEED | NASF* NEEDED | NASF NEEDED AS A % OF NASF AVAILABLE |
|------------------------------|---|--------------|--|
| Classrooms | 14 | 18 | 129 |
| Class Laboratories | 22 | 19 | 86 |
| Research & Research Training | 2 | 18 | 900 |
| Library | 12 | 5 | 42 |
| Auditorium | 8 | 5 | 62 |
| Faculty Offices | 1 | 13 | 1,300 |
| Administrative Areas | 2 | 5 | 250 |
| Animal Facilities | 0 | 1 | -- |
| TOTAL | 68** | 80** | 118 |

* In thousands.

** Column sums are imprecise due to aggregation of a large number of round-off errors over the many hospitals involved in each detail line.

F. ONGOING AND FUTURE CONSTRUCTION AND REMODELING, AND THEIR EFFECT ON THE INVENTORY OF NONCLINICAL INSTRUCTION FACILITIES

1. Extent of Ongoing Construction

Seven of the 66 hospitals and clinics associated with the respondent pharmacy schools indicated that, as of the survey date, they were involved in new construction and remodeling whose total cost, approximately \$120 million, was being incurred by the public sector. (A GSF figure is not given here since \$90 of the \$120 million in construction costs were reported without corresponding GSF figures.) Nearly half this effort (for the 170,000 GSF of new construction which were reported) was for replacement of obsolete facilities, and none was for enrollment expansion. Eighty-nine percent of the funds were supplied by state and local sources, with 10% obtained through borrowing.

2. Effects of Ongoing Construction

The net effect, *vis-a-vis* schools of pharmacy, of ongoing construction and remodeling in hospitals and clinics will be to add 160,000 NASF of nonclinical instruction facilities to the inventory that existed as of fall, 1973--an increase of 65%. On a percentage basis, this increase to 400,000 NASF will most impact the hospitals and clinics used by "large" schools, for whom it represents a factor-of-three (319%) addition to the 16,000 NASF reported for 1973. "Small" schools will also be significantly impacted, with the addition of 84,000 NASF (142% of the original inventory).

Hospitals and clinics associated with pharmacy schools in the public sector anticipate adding 71% as much space through ongoing construction programs as existed prior to these programs' initiation. The 224,000 NASF "post-construction inventory" of nonclinical instruction facilities in clinical areas is expected to rise to 382,000 NASF.

3. The 1983 Look Ahead

Since for the "1983 look-ahead", the instructions did not distinguish between patient-care areas and non-clinical instruction facilities in clinical areas,

the projected 1983 inventory of 810,000 NASF is not strictly comparable with the 400,000 NASF reported for the "post-construction period". Assuming, however, that the estimates of various amounts of construction for each construction purpose apply to both patient-care and non-patient-care facilities, it is of interest to assess the planned activity in light of these purposes.

In the aggregate, the respective percentages (of planned construction) to be applied to the various purposes outlined by the survey instrument tend to follow the pattern evidenced by construction in progress as of the survey date. Almost none of the construction is marked for enrollment expansion, while the largest portion (66%) will again be for replacement of obsolete facilities. This latter figure, it should be noted, is influenced by the one very large replacement program (333,000 NASF) reported by the private sector, with the six programs in the public sector averaging 48% for replacement purposes. In sum, then, major clinical facilities construction efforts in support of pharmacy school programs will continue to upgrade rather than expand, the available nonclinical and clinical teaching facilities.

VI. SCHOOLS OF PODIATRIC MEDICINE

A. INTRODUCTION

Podiatry schools resemble schools of medicine and dentistry to the extent that their basic science training takes place primarily in the first two years of a four year education program. The following two years (the "clinical years") relate (in the sense of facilities) to the use of examining and treatment rooms and, to a lesser extent, to prosthesis and bio-mechanics laboratories. It is thus to be expected that in the aggregate, the schools of podiatric medicine will be seen to be heavily classroom and class laboratory instruction oriented; with a nearly equivalent concentration on examining and treatment rooms and (to a much lesser degree) inpatient care areas. Since, however, these schools are not heavily research oriented, it is also to be expected that the amount of research and research training space will be much less significant (as a percentage of the total facilities configuration) than for schools such as medicine and dentistry with the net result that the classroom and class laboratory instructional facilities will represent a far greater proportion of the available facilities than in the latter two professions--even though the intensity and nature of the training are similar.

Even though all 5 of the nation's schools of podiatric medicine responded with substantially completed survey instruments, their limited number reduces our ability to discuss them in the analytical manner desired. Rather, that which follows will be more expository in nature. Table 3.VI.1 describes the response rate in terms of the grouping parameters used in the discussion to follow. Size categories were assigned by choosing 0-250 Full-Time Equivalent students (FTE) to represent "small schools", 251-350 FTE's as "medium", and above 350 as "large".

TABLE 3.VI.1
THE UNIVERSE OF SCHOOLS OF PODIATRY

| SCHOOLS OF: PODIATRY | NUMBER OF SCHOOLS IN UNIVERSE | NON-RESPONDENT | | | RESPON- DENTS (NO. 1 - NO.2) | NEW SCHOOLS RESPON- DING | ESTAB- LISHED RESPON- DENTS (#3-#4) | NON-SUB- STANTIVE FORMS ESTAB. SCHOOLS | RE- SPONSES USED IN ANALYSIS (#5-#6) | ANALYZED SCHOOLS AS A % OF ESTAB- LISHED UNIVERSE (7/(1-2a-4)) |
|-------------------------|---|----------------|-----------------------------|------------------------|---------------------------------------|-----------------------------------|---|--|--|--|
| | | NEW SCHOOLS | ESTAB- LISHED SCHOOLS | TOTAL (#2a+ #2b) | | | | | | |
| TOTAL | #1 5 | #2a 0 | #2b 0 | #2c 0 | #3 5 | #4 0 | #5 5 | #6 0 | #7 5 | #8 100 |
| Large | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 100 |
| Medium | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 100 |
| Small | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 100 |
| Public | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Private | 5 | 0 | 0 | 0 | 5 | 0 | 5 | 0 | 5 | 100 |
| Innercity | 4 | 0 | 0 | 0 | 4 | 0 | 4 | 0 | 4 | 100 |
| Outercity | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 100 |
| Suburban | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Rural | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | |
| Northeast | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 100 |
| Northcentral | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 100 |
| South | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| West | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 100 |

B. THE FALL, 1973 INVENTORY OF NONCLINICAL INSTRUCTION FACILITIES CONTROLLED BY RESPONDENTS

1. Description

The 5 respondent schools of podiatric medicine reported 140,000 NASF (263,000 GSF) of "allocated" (controlled) instructional facilities, 94% of which were owned (or leased on a very long-term basis), and the remaining 6% rented or leased. The largest reported inventory, all of it "owned" by the respondent, was 34,000 NASF, twice the mean configuration size.

In an effort to better assure comparability of Net Assignable Square Footage (NASF) figures among the schools, the discussion henceforth excludes two room-types: "on-site patient care" due to its lack of fit within the framework of "nonclinical instruction facilities", and "other" space, due to the broad mix of space types it represents. Table 3.VI.2 displays how we derived, for discussion purposes, the 86,000 NASF of nonclinical instruction facilities.

TABLE 3.VI.2
DERIVATION OF THE FALL, 1973 INVENTORY OF NONCLINICAL INSTRUCTION
FACILITIES--SCHOOLS OF PODIATRIC MEDICINE

| | |
|--|-----|
| 1. Number of Schools | 5 |
| 2. Owned GSF* | 263 |
| 3. Owned NASF* | 131 |
| 4. Rented/leased NASF | 9 |
| 5. Total (owned or rented) NASF | 140 |
| 6. "On-site patient care", and "other" | 54 |
| 7. Total NASF of nonclinical instruction space | 86 |

* All GSF and NASF figures are in thousands.

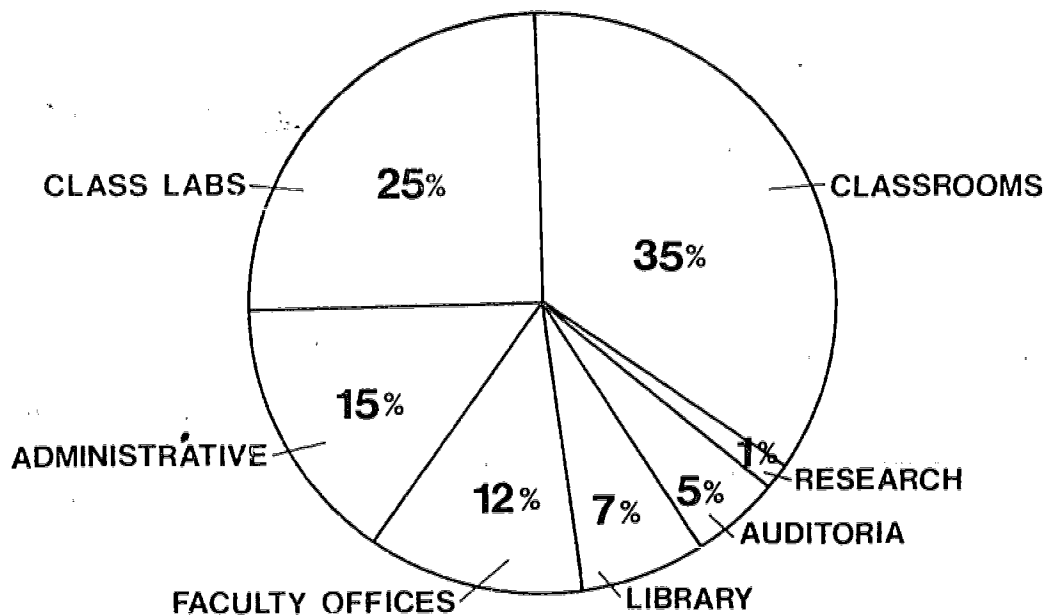
The 86,000 NASF are distributed among the groupings of schools (e.g., by size and control) as displayed in Table 3.VI.3. By comparison with Table 3.VI.2, we find that none of the "on-site patient care" or "other" facilities are in quarters which are rented or leased.

TABLE 3.VI.3
THE FALL, 1973 INVENTORY OF PODIATRY SCHOOLS' NONCLINICAL
INSTRUCTION FACILITIES

| | NUMBER OF SCHOOLS | OWNED NASF (000) | RENTED NASF (000) | TOTAL NASF (000) | AVERAGE NASF PER SCHOOL |
|-------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------------|
| TOTAL | 5 | 77 | 9 | 86 | 17 |
| Size of School | | | | | |
| Large | 2 | 45 | 2 | 47 | 24 |
| Medium | 1 | 10 | 2 | 12 | 12 |
| Small | 2 | 22 | 5 | 27 | 14 |
| Control | | | | | |
| Public | 0 | -- | - | -- | -- |
| Private | 5 | 77 | 9 | 86 | 17 |
| Geographic Locale | | | | | |
| Innercity | 4 | 43 | 9 | 52 | 13 |
| Outercity | 1 | 34 | 0 | 34 | 34 |
| Suburban | 0 | -- | - | -- | -- |
| Rural | 0 | -- | - | -- | -- |
| Census Region | | | | | |
| Northeast | 2 | 22 | 5 | 27 | 14 |
| Northcentral | 2 | 45 | 2 | 47 | 24 |
| South | 0 | -- | - | -- | -- |
| West | 1 | 10 | 2 | 12 | 12 |

Sixty percent of the nonclinical NASF in schools of podiatric medicine were located in classrooms and class laboratories as shown in Figure 3.VI.A.

FIGURE 3.VI.A
DISTRIBUTION PROFILE OF NONCLINICAL INSTRUCTION FACILITIES FALL, 1973

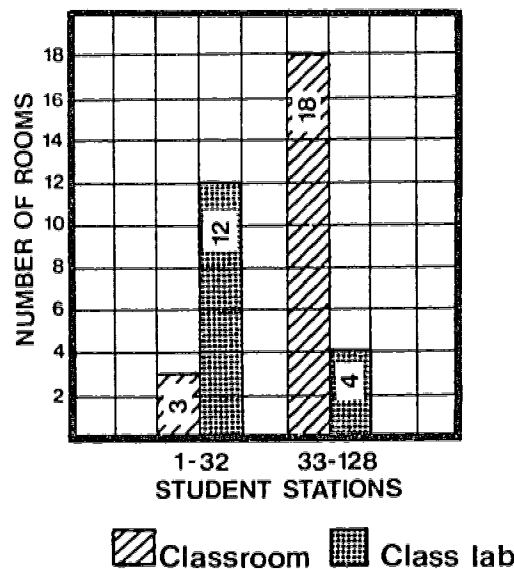


As is clear from the figure, and as noted in the introduction to this chapter, schools of podiatry were much less oriented toward research than were many of the schools. Only two rooms were reported by the five respondents as being predominantly devoted to research.

As seen in the following graph, schools of podiatry tend to utilize small class laboratories and larger classrooms. In the fall, 1973 configuration, there were three times as many "small" (1 - 32 student stations) class laboratories as "large" (more than 32) and six times as many large class rooms as small. Eleven of the "large" classrooms were of more than 64 stations.

FIGURE 3.VI.B

NUMBER OF CLASSROOMS AND CLASS LABORATORIES BY VARIOUS STUDENT CAPACITIES



In terms of square footage, the classrooms and class laboratories were similar. Differences in number of stations per room rest with the fact that a class laboratory student station, on the average, required more than twice the space that a classroom student station required.

TABLE 3.VI.4

NASF PER ROOM AND STUDENT STATION

| | NASF (000) | NUMBER OF ROOMS | NUMBER OF STUDENT STATIONS | NASF PER ROOM | NASF PER STATION | STUDENT STATIONS PER ROOM |
|----------------------------|---------------|-----------------------|----------------------------------|---------------------|------------------------|---------------------------------|
| Classrooms | 29 | 21 | 1,324 | 1,381 | 22 | 63 |
| Class Laboratories | 21 | 16 | 428 | 1,312 | 49 | 27 |
| Research & Research Train. | 1 | 2 | 4 | 1,000 | -- | 2 |
| Library | 6 | -- | 232 | -- | 26 | -- |
| Auditoria | 4 | 1 | 350 | 4,000 | 11 | 350 |
| Faculty Offices | 10 | 64 | -- | 156 | -- | -- |

2. The Student Population Using the Inventory as of Fall, 1973

As of the start of the academic year 1973-1974, the total FTE enrollment of graduate and undergraduate students at schools of podiatric medicine was 1,555. Twenty-one of these students were reported as graduate students. As seen in Table 3.VI.5, nearly three-quarters of these students were situated in inner-city locales.

TABLE 3.VI.5
ENROLLMENT AT SCHOOLS OF PODIATRIC MEDICINE--FALL, 1973

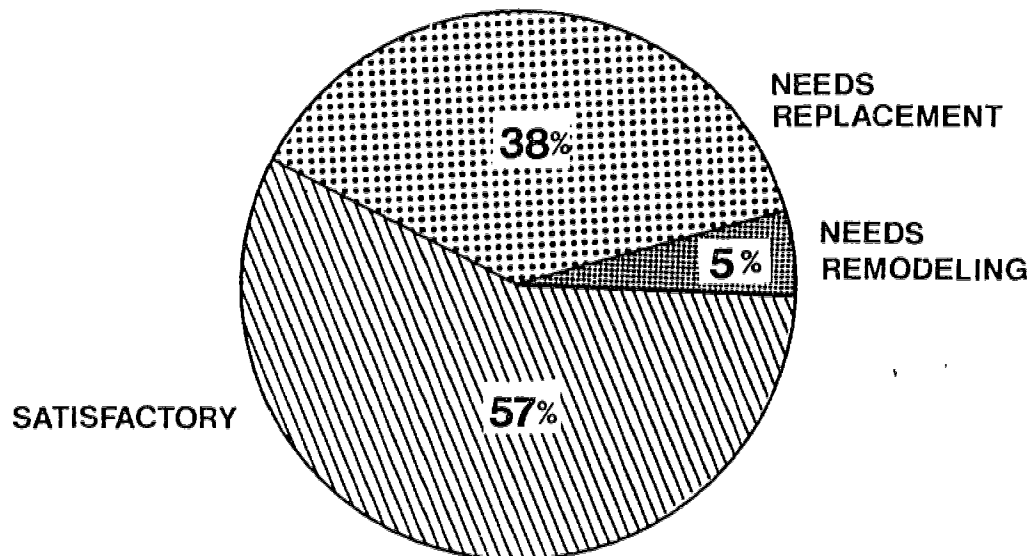
| | NUMBER OF SCHOOLS | FTE UNDERGRADUATE PLUS GRADUATE | FTE PER SCHOOL |
|-------------------|-------------------------|---------------------------------------|----------------------|
| TOTAL | 5 | 1,555 | 311 |
| Size of School | | | |
| Large | 2 | 814 | 407 |
| Medium | 1 | 283 | 283 |
| Small | 2 | 458 | 229 |
| Geographic Locale | | | |
| Innecity | 4 | 1,139 | 285 |
| Outercity | 1 | 416 | 416 |
| Census Region | | | |
| Northeast | 2 | 458 | 229 |
| Northcentral | 2 | 814 | 407 |
| South | 0 | -- | -- |
| West | 1 | 283 | 283 |

3. Adequacy of the Inventory

a. Condition of Space

The condition of space at schools of podiatric medicine was reported to be generally worse than at schools of other professions. Only 57% (49,000 NASF) of the total inventory was considered "satisfactory for program purposes" and a minimal amount of the unsatisfactory space (4,000 NASF) could be made satisfactory through remodeling. The remaining 33,000 NASF were reported to require replacement (see Figure 3.VI.C).

FIGURE 3.VI.C
CONDITION OF SPACE, SCHOOLS OF PODIATRIC MEDICINE--FALL 1973

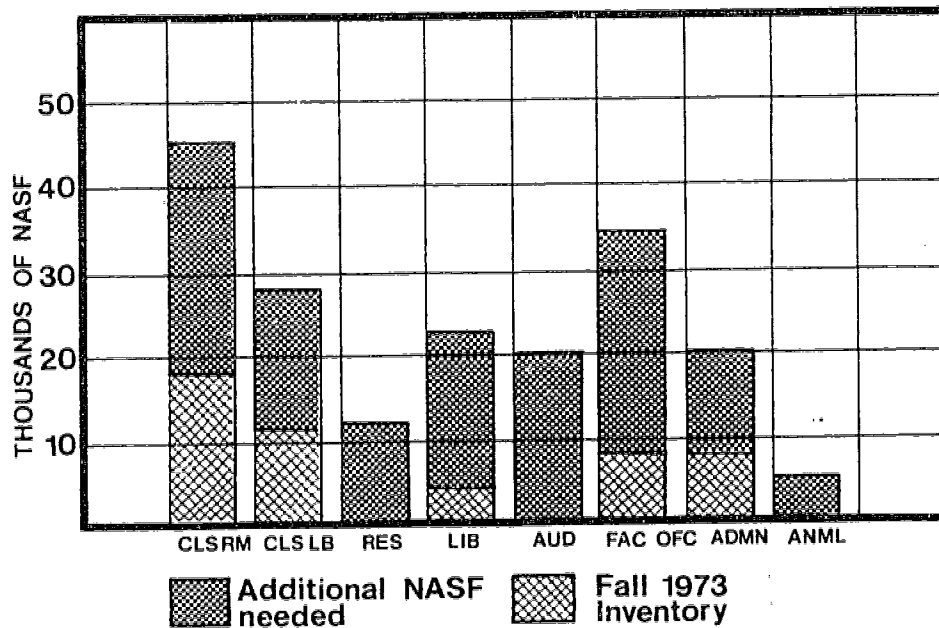


The percents of satisfactory space shown above are relatively consistent for all room types except faculty offices where only 30% of the space was considered satisfactory.

b. Need for Nonclinical Facilities as of Fall, 1973

As reflected above with respect to condition of space, four of the responding schools of podiatric medicine had expressed requirements for new space to accommodate their then-current enrollment. These four schools, with an aggregate inventory of 52 thousand NASF, perceived 120 thousand NASF to be needed, 231% of their fall, 1973 inventory. Unfortunately, one school that reported more than half the total space needed did not specify the reasons for this need. Most of the space listed by the other respondents, however, was required to relieve overcrowding. Since only 57% of the space was reported satisfactory, one may assume "poor condition" or "obsolescence" to be major concerns if the responses are to be consistent. The perceived needs, by type of space, are displayed in Figure 3.VI.D.

FIGURE 3.VI.D
COMPARISON OF SPACE NEEDS AND AVAILABILITIES



With respect to library facilities in particular, four schools answered the subjective question regarding "enrollment versus library capacity". Three of these schools, sixty percent of the podiatry schools' universe, stated that their libraries were highly overcrowded, the other indicating sufficient library facilities.

The five schools also reported, in total, the following "minimum" needs for resource categories defined in the survey instrument:

TABLE 3.VI.6
NEEDS (OTHER THAN NONCLINICAL INSTRUCTION FACILITIES),
SCHOOLS OF PODIATRIC MEDICINE--FALL, 1973

| | NUMBER OF SCHOOLS | NEED |
|---------------------|-------------------------|-------------|
| Faculty (FTE) | 5 | 104 |
| Support Staff (FTE) | 5 | 101 |
| Operating Funds | 5 | \$4,250,000 |
| Equipment | 5 | \$2,146,000 |
| Hospital Beds | 3 | 110 |
| Examining Rooms | 4 | 140 |

4. Resource Usage

a. NASF and Stations Per Student

The five schools of podiatric medicine reported 55 NASF per student in the aggregate, ranging from 33 to 82 on a per school basis. There was almost one station per student in classrooms (.85) and .28 stations per student in class laboratories. The space that was considered "allocated" was basically the only nonclinical instruction space available to the students since the five schools neither had available nor used joint-use facilities, nor were there such facilities available in owned or major affiliated hospitals and clinics (with the exception of a small amount of administrative and classroom area). As discussed in other sections, this lack of joint-use space is largely a function of the fact that all five schools are freestanding institutions. Typically, it is the public schools in health sciences centers or other multiple school environments that share space.

TABLE 3.VI.7
SPACE AND STATIONS PER STUDENT, SCHOOLS OF PODIATRIC
MEDICINE--FALL, 1973

| | NASF | NASF PER STUDENT | STATIONS PER STUDENT |
|----------------------------|------|------------------|----------------------|
| TOTAL | 86 | 55 | -- |
| Classrooms | 29 | 19 | .85 |
| Class Laboratories | 21 | 14 | .28 |
| Research & Research Train. | 1 | 1 | .00 |
| Library | 6 | 4 | .15 |
| Auditorium | 4 | 3 | .23 |
| Faculty Offices | 10 | 6 | -- |
| Administrative Offices | 13 | 8 | -- |
| Animal Facilities | 0 | 0 | -- |

b. Usage of Classrooms and Class Laboratories

Use of classroom space was fairly evenly divided between basic biological and clinical sciences instruction (46% and 38%, respectively) with 16% used for mixed purposes. For class laboratories, the majority (87%) of the space was used for basic biological sciences instruction.

The caveats of PART 1 state that our purpose in computing room and student station utilization is not evaluative in nature, but rather is for comparative analysis. In reviewing the utilization-related measures which follow, this purpose must be kept in mind since the figures presented--in particular, the percentages--will appear low.

This situation arises because to make the figures comparable, we used 2,080 hours as a substitute for the various-length academic years reported by respondents. Since the reported lengths of year were typically shorter than 2,080 hours, the effect is to depress the utilization percentages. The formula used is, in simple terms, given by:

$$\frac{\text{resource hours used}}{\text{resource hours "available"}} \times 100 = \% \text{ utilization}$$

Essentially, the same formula is used whether the resource under analysis is a room or a student station (see Appendix G for the computational details). The effect of our substitution is to replace, with 2,080 hours, some smaller number in the denominator of the formula thereby decreasing the computed ratio in most cases. For example, in the case of room utilization, the denominator is changed from:

$$\begin{array}{c} \text{number of rooms X length of academic year} \\ \text{to:} \\ \text{number of rooms X 2,080.} \end{array}$$

In sum, then, it is the pattern in the percentages--rather than their absolute values--which are of importance.

Classrooms and class laboratories at schools of podiatric medicine were used to a relatively high degree in comparison with similar rooms of other professions. The average classroom was used 765 hours per year; while the average class laboratory was used 500 or 340 hours per year, depending upon whether it was general or special purpose.

TABLE 3.VI.8
MEAN HOURS OF USAGE, PODIATRY SCHOOLS' CLASSROOMS AND
CLASS LABORATORIES--FALL, 1973

| | CLASSROOMS | | | CLASS LABORATORIES | | |
|-------------------|-----------------------------|-----------------|------------------------------|-----------------------------|-----------------|------------------------------|
| | TOTAL HOURS' USAGE PER YEAR | NUMBER OF ROOMS | MEAN HOURS OF USAGE PER YEAR | TOTAL HOURS' USAGE PER YEAR | NUMBER OF ROOMS | MEAN HOURS OF USAGE PER YEAR |
| TOTAL | 16,062 | 21 | 765 | 7,680 | 16 | 480 |
| Size of School | | | | | | |
| Large | 7,092 | 10 | 709 | 2,784 | 7 | 398 |
| Medium | 3,960 | 4 | 990 | 2,400 | 3 | 800 |
| Small | 5,010 | 7 | 716 | 2,496 | 6 | 416 |
| Geographic Locale | | | | | | |
| Innecity | 13,308 | 16 | 832 | 5,980 | 11 | 544 |
| Outercity | 2,754 | 5 | 551 | 1,700 | 5 | 340 |

According to our formulae, classrooms were used 35% of the "available" hours during the 2,080 hour year, while the student stations within those rooms were used 30% of the time. The class laboratory room use percentage is somewhat lower than that for the classrooms (23%). The station utilization figure of 40% is given for completeness, recognizing that, in theory, station utilization must approach room usage as an upper bound. Unfortunately, a number of usage-related data errors had not yet been corrected at the time of this writing, and in view of our small sample size, are large enough to impact the averages. The figures are, in any event, presented in Table 3.VI.9 so that the reader may gain insight into the pattern of these percentages across the various groupings of schools used in this discussion.

TABLE 3.VI.9
CLASSROOM AND CLASS LABORATORY "ROOM AND STATION
UTILIZATION," SCHOOLS OF PODIATRIC MEDICINE--FALL, 1973

| | CLASSROOMS | | CLASS LABORATORIES | |
|-------------------|----------------------------|--|----------------------------|--|
| | ROOM UTILIZATION (%) | STUDENT STATION UTILIZATION (%) | ROOM UTILIZATION (%) | STUDENT STATION UTILIZATION (%) |
| TOTAL | 35 | 30 | 23 | 40 |
| Size of School | | | | |
| Large | 31 | 36 | 19 | 41 |
| Medium | 48 | 22 | 38 | 61 |
| Small | 34 | 28 | 20 | 27 |
| Geographic Locale | | | | |
| Innercity | 40 | 29 | 26 | 45 |
| Outercity | 22 | 33 | 16 | 26 |

c. Faculty Offices

While the average faculty member at schools of podiatric medicine is assigned approximately 68 NASF, variation about this mean is substantial, as seen in Table 3.VI.10. For individual schools, this measure ranged from 33 to 167 NASF per FTE faculty member.

TABLE 3.VI.10
FACULTY OFFICE SPACE PER FACULTY MEMBER,
SCHOOLS OF PODIATRIC MEDICINE--FALL, 1973

| | NUMBER OF FTE FACULTY | NASF OF FACULTY OFFICE SPACE (000) | NASF PER FACULTY MEMBER |
|-------------------|-----------------------------|---|-------------------------------|
| TOTAL | 148 | 10 | 68 |
| Size of School | | | |
| Large | 52 | 5 | 96 |
| Medium | 32 | 2 | 63 |
| Small | 64 | 3 | 47 |
| Geographic Locale | | | |
| Innecity | 114 | 8 | 70 |
| Outercity | 34 | 2 | 59 |

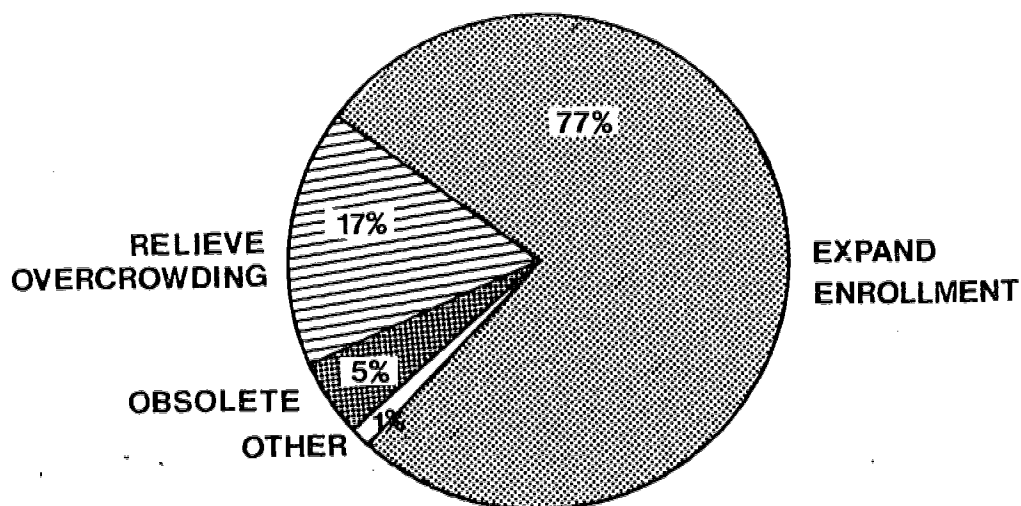
324

C. ONGOING CONSTRUCTION AND REMODELING AND THE POST CONSTRUCTION INVENTORY

1. Extent, Purposes, and Cost

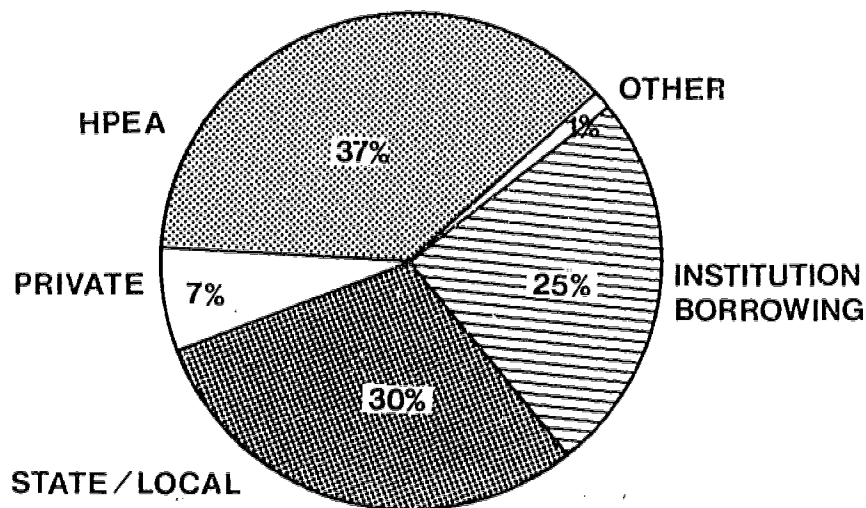
Two of the five schools reported ongoing construction programs totalling \$14.6 million for 209,000 GSF. One of the two also reported a remodeling program of 8,000 NASF at a cost of \$50,000. The larger of the two construction programs (149 thousand GSF) was being carried out for the purpose of expanding enrollment. Thus, 77% of the two programs were for the latter purpose (see Figure 3.VI.E).

FIGURE 3.VI.E
PURPOSES OF ONGOING CONSTRUCTION AT TWO SCHOOLS OF PODIATRIC MEDICINE--FALL 1973



As seen in the following figure, three sources provided most of the funds for the two construction programs: state or local funds, HPEA construction grants, and institution borrowing (see Figure 3.VI.F).

FIGURE 3.VI.F
SOURCES OF FUNDS, FALL 1973 CONSTRUCTION



2. Effects of Ongoing Construction and Remodeling

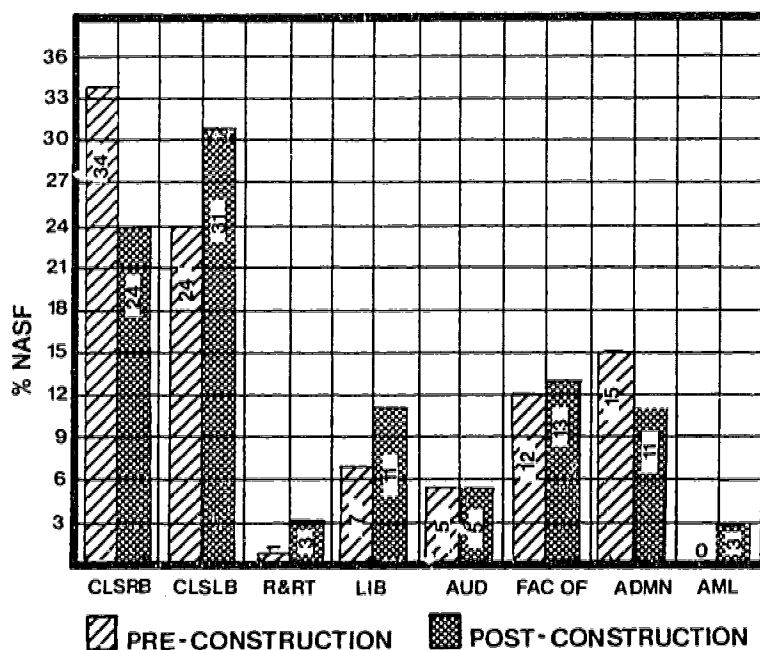
Following the completion of the ongoing construction and remodeling programs, the nonclinical facilities inventory at schools of podiatric medicine will rise to 150,000 NASF from 86,000 NASF. In addition, 7,000 NASF of the rented inventory will have been vacated, leaving 2,000 NASF rented in the "post-construction" inventory. As may be seen in Table 3.VI.11, the changes for certain room-types--as a percentage of the fall, 1973 inventory, are substantial.

TABLE 3.VI.11
CHANGES IN CONTROLLED, NONCLINICAL INSTRUCTION FACILITIES,
FALL 1973 TO "POST-CONSTRUCTION"

| | NASF (000) 1973 | NASF (000) POST- CONSTRUCTION | DIFFERENCE | % CHANGE |
|----------------------------|-----------------------|-------------------------------------|------------|----------|
| TOTAL | 86 | 150 | 64 | 74 |
| Classroom | 29 | 36 | 7 | 24 |
| Class Laboratory | 21 | 46 | 25 | 119 |
| Research & Research Train. | 1 | 4 | 3 | 300 |
| Library | 6 | 16 | 10 | 167 |
| Auditorium | 4 | 7 | 3 | 75 |
| Faculty Offices | 10 | 20 | 10 | 100 |
| Administrative Areas | 13 | 16 | 3 | 23 |
| Animal Facilities | 0 | 4 | 4 | -- |

Notwithstanding the large percentage changes in the various room-types, the space distribution profile (i.e., percent of total space accounted for by each room type) would, following the completion of ongoing construction, appear similar to what it was before. The major difference would be a reversal of classroom and class laboratory proportions, with class laboratories assuming a more prominent role as seen in Figure 3.VI.G.

FIGURE 3.VI.G
PRE-CONSTRUCTION/POST-CONSTRUCTION SPACE DISTRIBUTION PROFILE



Class laboratories appear to be a major thrust of the construction ongoing as of fall, 1973. Fourteen new rooms (an 88% increase) were being built and, upon their completion, the average NASF per room was to be increased from 1,312 to 1,533. The class laboratory NASF/student ratio would also have been increased from 14 to 24. Faculty offices, which averaged 68 NASF per faculty member, were a second major thrust of the construction programs, with forty new offices being built, resulting in a post-construction ratio of 105 NASF per FTE faculty member.

With 2/3 of the enrollment growth occurring in the one school with the large enrollment expansion program, podiatry student enrollment will have increased by 21% following completion of the construction ongoing as of the survey date.

3. Post-Construction Needs

Four schools indicated a need for space over and above that being constructed or remodeled as of the survey date. In all, 64,000 NASF were reported as needed, indicating that ongoing construction programs had alleviated 47% of the need reported as of the fall of 1973. Table 3.VI.12 displays the need on a room-type by room-type basis. The relative magnitude of that need is highlighted by comparing it with the inventory of only those schools reporting a need.

TABLE 3.VI.12
POST-CONSTRUCTION FACILITIES NEEDS--SCHOOLS OF PODIATRIC MEDICINE

| | TOTAL INVENTORY (000 NASF) (1) | INVENTORY OF SCHOOLS EX- PRESSING A NEED (000 NASF) (2) | NASF NEEDED (000) (3) | COLUMN 3 AS A % OF COLUMN 2 |
|------------------------------|---|--|-----------------------------|-----------------------------------|
| TOTAL | 150 | 58 | 64 | 110 |
| Classrooms | 36 | 16 | 16 | 100 |
| Class Laboratories | 46 | 13 | 10 | 77 |
| Research & Research Training | 4 | 1 | 7 | 700 |
| Library | 16 | 9 | 9 | 100 |
| Auditoria | 7 | 0 | 9 | -- |
| Faculty Offices | 20 | 9 | 7 | 78 |
| Administrative Areas | 16 | 5 | 5 | 100 |
| Animal Facilities | 4 | 1 | 3 | 300 |

D. THE 1983 LOOK AHEAD

Unfortunately, uncorrected inconsistencies exist in the data regarding construction and remodeling planned by 1983. Basically, these questions concern purposes of construction as compared with projected enrollment growth. Two schools reported construction projects of 205 thousand NASF in total. Almost 2/3 of this space was estimated to be for expansion of enrollment. In contrast to this intent, the 1983 enrollment projection for these two schools showed no increase at all. On the other hand, the other three schools indicated enrollment increases large enough to bring the average increase (for the five schools) to 21%.

TABLE 3.VI.13
FALL, 1973 AND PROJECTED ENROLLMENT COMPARISONS

| FALL 1973 HEADCOUNT | POST CONSTRUCTION HEADCOUNT | FALL, 1983 HEADCOUNT |
|------------------------|--------------------------------|-------------------------|
| 1,555 | 1,887 | 2,278 |

E. INVENTORY OF CLINICAL FACILITIES AND NONCLINICAL INSTRUCTION FACILITIES
IN CLINICAL AREAS--FALL, 1973

1. Nonclinical Instruction Facilities in Clinical Areas

Nonclinical space in the two clinical affiliates used by the schools of podiatric medicine amounted to only 1,000 NASF, primarily in administrative facilities. Two schools however, did report a need or desire for 8,000 NASF of this type, and 26,000 NASF were under construction at one hospital, perhaps indicating the beginnings of a trend in this aspect of podiatry schools' facilities configurations.

2. Clinical Resources

The schools of podiatric medicine were primarily oriented toward the use of outpatient clinics. Only one hospital was accessed as an inpatient source, and this 28 bed facility had an average daily patient load (census) of 17.

With respect to outpatient contact, the "on-site patient care areas" as defined in the survey, provided approximately three times the clinical material resources as did the "off-site" hospitals and clinics. Just over 100,000 outpatient visits per year were available for student training in the "on-site patient care" facilities. Patient stations, also, were about three times more numerous in the on-site facilities, 145 versus 55.

Table 3.VI.14 summarizes the patient care data in the "on-site" areas and the "off-site" hospitals and outpatient clinics.

TABLE 3.VI.14
FTE ENROLLMENT AT PODIATRY SCHOOLS, AND THE CLINICAL TEACHING
RESOURCES REPRESENTED BY "ON-SITE" AND "OFF-SITE" CLINICS

| | NUMBER OF OUTPATIENT CLINICS | NUMBER OF OUTPATIENT STATIONS | NUMBER OF OUTPATIENT VISITS | FTE EN- ROLLMENT | VISITS PER STUDENT | STUDENTS PER OUT- PATIENT STATION |
|-----------------|------------------------------------|-------------------------------------|-----------------------------------|---------------------|--------------------------|--|
| "On-Site" Care | 3 | 145 | 100,054 | 1,555 | 64 | 11 |
| Hospital/Clinic | 2 | 55 | 33,500 | 1,555 | 22 | 28 |
| Total | 5 | 200 | 133,554 | 1,555 | 86 | 8 |

It should be noted that in the above table, the per student clinical resources are understated to the extent that patient contact is usually not a part of the podiatry curriculum in the early years of the program, and total FTE enrollment has been used in the denominator of the various ratios of resources per student.

F. ONGOING CONSTRUCTION AND REMODELING AND THE POST-CONSTRUCTION INVENTORY OF CLINICAL INSTRUCTION FACILITIES

1. Extent, Purposes, and Cost

One construction and remodeling program was reported by a hospital used as a major component of the teaching program at one school of podiatric medicine. Involving some 26,000 NASF of nonclinical instruction facilities to become available for use by the school involved, the program's \$3.5 million funding was obtained primarily through borrowing (94%) with the remainder (\$200,000) supplied by the school itself and by a philanthropic organization.

2. Effects of Ongoing Construction and Remodeling

The nonclinical instruction facilities inventory, increased to 27,000 NASF, will be comprised of 45% classroom and class laboratory facilities, and most of the remainder divided among library, faculty office, and administrative office facilities.

The reported construction will serve to increase not only the nonclinical instruction facilities, but the patient contact resources as well. Thus, five inpatient beds will be added to the 28 bed inventory discussed previously; and the number of ambulatory patient stations will be increased from 200 to 250 as a result of the ongoing construction. No other construction of clinical teaching space is planned through 1983.

VII. SCHOOLS OF PUBLIC HEALTH

A. INTRODUCTION

The distinguishing feature of schools of public health seems to be that they are, more than any other profession surveyed, similar to that which the layman might consider a "typical graduate school". There is virtually no clinical component in a Public Health curriculum, and the primary thrust of educational activity relates to classroom and class laboratory instruction. Although the 8 or 9 major curricula offered by schools of Public Health tend, according to those knowledgeable in the field, to require differing facilities, these differences would not be reflected by our data due to the level of detail at which said differences exist (e.g., the special purpose facilities required for the study of health statistics versus the study of nutrition or epidemiology would not be reflected through the survey instrument's simplistic categorization of "general" versus "special" purpose class laboratory).

Under the hypothesis that enrollment has impact not only on the amount of educational facilities required, but the relative amounts of various room types to be found in a given configuration, the schools of public health were categorized as "small", "medium", or "large" as a function of their full time equivalent enrollment. As in the cases of the other professions surveyed, a frequency distribution of reported enrollment was utilized in developing a set of "natural" ranges for the respective size groups: small, 0-200; medium, 201-400; and large, above 400. Table 3.VII.1 shows these and other categorizations, so that the response rate (and the nature of respondents) can be used to place the discussion which follows within the perspective of the 18 public health schools in the nation.

One new school of Public Health, reporting a fall, 1973 enrollment level of 32 students, indicated a controlled inventory of 9,000 NASF of which 78% was rented. As of the survey date, the reported enrollment level engendered a perceived need for 5,000 NASF of additional facilities. No enrollment growth projections nor construction plans were available as of the survey closeout date.

TABLE 3.VII.1
DERIVATION OF SURVEY RESPONSE RATE FOR SCHOOLS OF PUBLIC HEALTH

| SCHOOLS OF: PUBLIC HEALTH | NUMBER OF SCHOOLS IN UNIVERSE | NON-RESPONDENT | | | RESPON- DENTS (NO. 1 - NO.2) | NEW SCHOOLS RESPON- DING | ESTAB- LISHED RESPON- DENTS (#3-#4) | NON-SUB- STANTIVE FORMS ESTAB. SCHOOLS | RE- SPONSES USED IN ANALYSIS (#5-#6) | ANALYZED SCHOOLS AS A % OF ESTAB- LISHED UNIVERSE (7/(1-2a-4)) |
|------------------------------|---|----------------|-----------------------------|------------------------|---------------------------------------|-----------------------------------|---|--|--|--|
| | | NEW SCHOOLS | ESTAB- LISHED SCHOOLS | TOTAL (#2a+ #2b) | | | | | | |
| | #1 | #2a | #2b | #2c | #3 | #4 | #5 | #6 | #7 | #8 |
| TOTAL | 18 | 0 | 5 | 5 | 13 | 1 | 12 | 0 | 12 | 71 |
| Large | 3 | 0 | 1 | 1 | 2 | 0 | 2 | 0 | 2 | 67 |
| Medium | 7 | 0 | 2 | 2 | 5 | 0 | 5 | 0 | 5 | 71 |
| Small | 8 | 0 | 2 | 2 | 6 | 1 | 5 | 0 | 5 | 71 |
| Public | 12 | 0 | 4 | 4 | 8 | 1 | 7 | 0 | 7 | 64 |
| Private | 6 | 0 | 1 | 1 | 5 | 0 | 5 | 0 | 5 | 83 |
| Innercity | | | | | | | | | 6 | |
| Outercity | | | | | | | | | 6 | |
| Suburban | | | | | | | | | 0 | |
| Rural | | | | | | | | | 0 | |
| Classical | | | | | | | | | 12 | |
| Revised | | | | | | | | | 0 | |
| Northeast | 5 | 0 | 1 | 1 | 4 | 0 | 4 | 0 | 4 | 80 |
| Northcentral | 2 | 0 | 0 | 0 | 2 | 1 | 1 | 0 | 1 | 100 |
| South | 6 | 0 | 3 | 3 | 3 | 0 | 3 | 0 | 3 | 50 |
| West | 5 | 0 | 1 | 1 | 4 | 0 | 4 | 0 | 4 | 80 |

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B. THE FALL, 1973 INVENTORY OF NONCLINICAL INSTRUCTION FACILITIES CONTROLLED BY RESPONDENTS

1. Description

The 12 degree-granting respondent schools of public health reported 999,000 NASF (1.51 million GSF) of "allocated" (controlled) nonclinical instruction facilities. To assure comparability of the NASF figures among the schools, the analysis henceforth excludes "on-site patient care" and "other" facilities in view of their mixed nature and meaning to various respondents. Table 3.VII.2 displays how the 916,000 NASF of nonclinical instruction facilities used in the subsequent analysis were derived from the 999,000 NASF reported.

TABLE 3.VII.2
DERIVATION OF PUBLIC HEALTH SCHOOLS' ANALYZABLE
INVENTORY OF NONCLINICAL INSTRUCTION FACILITIES

| | |
|--|-------|
| 1. Number of Schools | 12 |
| 2. Owned GSF* | 1,511 |
| 3. Owned NASF* | 844 |
| 4. Rented/leased NASF | 155 |
| 5. Total (owned or rented) NASF | 999 |
| 6. Less "on-site patient care" and "other" | 83 |
| 7. Total NASF of nonclinical instruction space | 916 |

* All square footage figures are in thousands.

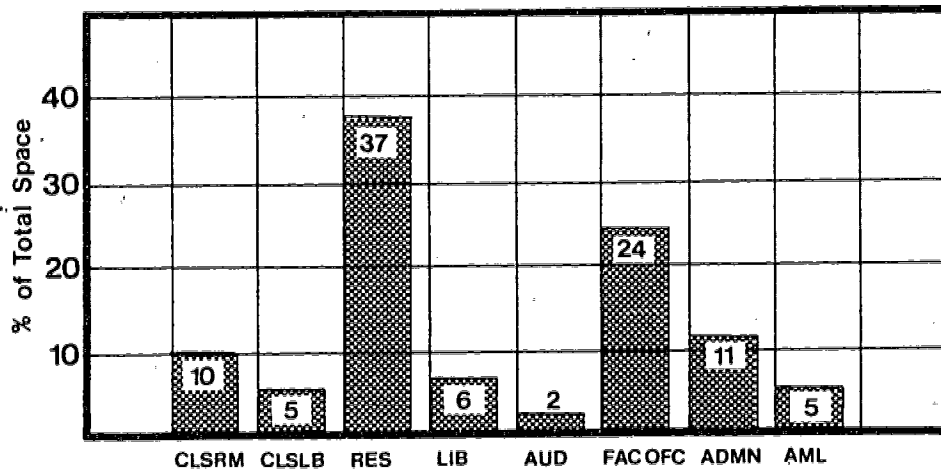
Of the 916,000 NASF of nonclinical instruction facilities controlled by schools of public health, 84% were owned (or leased on a very long-term basis), and the remaining 16% rented or leased. The largest reported inventory, all of it "owned" by the respondent, was just under 200 thousand NASF. The mean configuration size, 76,000 NASF, was nearly three times the size of the smallest reported inventory. Configuration size does not appear to vary with "locale" (see Table 3.VII.3), but when the schools are grouped by control, the "average" publicly controlled school is somewhat smaller than its counterpart in the private sector.

TABLE 3.VII.3
NONCLINICAL INSTRUCTION FACILITIES AT SCHOOLS OF PUBLIC HEALTH,
FALL, 1973

| | NUMBER OF SCHOOLS | TOTAL NASF (000) | OWNED NASF (000) | RENTED NASF (000) | AVERAGE NASF PER SCHOOL (000) |
|-------------------|-------------------------|------------------------|------------------------|-------------------------|-------------------------------------|
| TOTAL | 12 | 916 | 772 | 144 | 76 |
| Size of School | | | | | |
| Large | 2 | 280 | 246 | 34 | 140 |
| Medium | 5 | 446 | 402 | 44 | 89 |
| Small | 5 | 190 | 124 | 66 | 38 |
| Control | | | | | |
| Public | 7 | 432 | 354 | 78 | 62 |
| Private | 5 | 484 | 418 | 66 | 97 |
| Geographic Locale | | | | | |
| Innercity | 6 | 456 | 363 | 93 | 76 |
| Outercity | 6 | 460 | 409 | 51 | 77 |
| Suburban | 0 | -- | -- | -- | -- |
| Rural | 0 | -- | -- | -- | -- |
| Census Region | | | | | |
| Northeast | 4 | 356 | 317 | 39 | 89 |
| Northcentral | 1 | 43 | 40 | 3 | 43 |
| South | 3 | 315 | 254 | 61 | 105 |
| West | 4 | 202 | 161 | 41 | 51 |

The distribution profile" of the percentages of space considered "classroom", "class laboratory", etc. is fairly constant as the twelve public health schools used in the analysis are grouped according to size, locale, control, and so on. Figure 3.VII.A depicts these percentages.

FIGURE 3.VII.A
PUBLIC HEALTH SCHOOLS' SPACE DISTRIBUTION PROFILE
FALL, 1973



One major departure from this profile appears in the greater relative availability of research and research training space in the private schools (44%) than for the public schools (30%). In both cases, the apparent commitment to research and research training rivals that of medical schools from the standpoint of the percentage distribution of room-types.

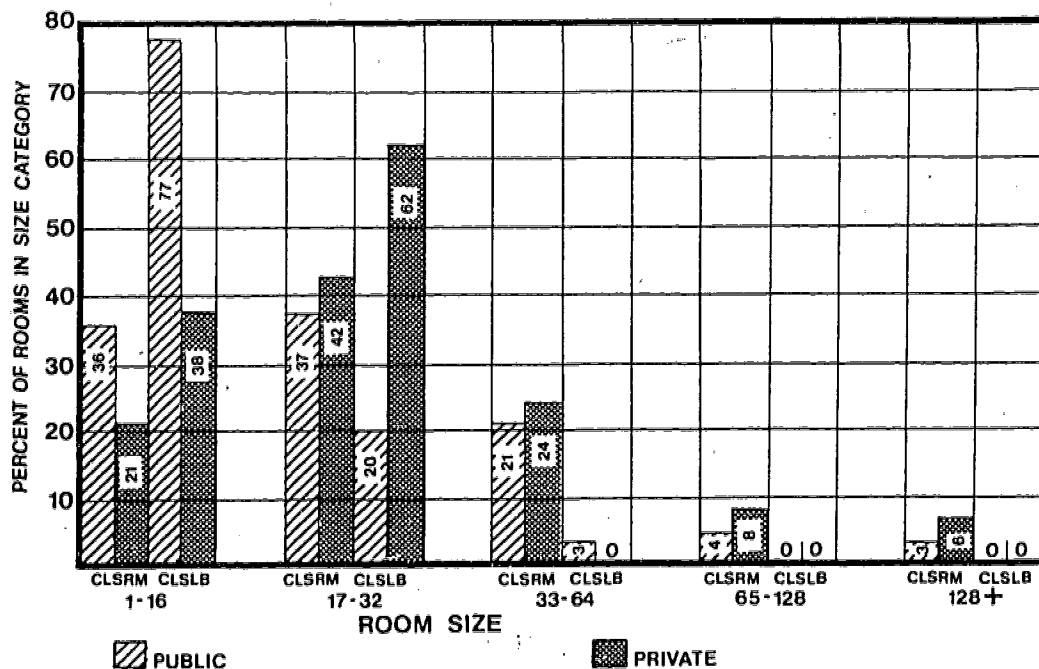
Table 3.VII.4 contains the aggregated responses of public health schools to the questions concerning square footage per room and station. Classroom and auditorium figures tend toward constancy over all the professions surveyed, although class laboratories reported here tend toward the small side by a factor of two, both in terms of square footage and number of stations.

TABLE 3.VII.4
NASF PER ROOM AND STATION, SCHOOLS OF PUBLIC HEALTH
FALL, 1973

| | NASF (000) | NUMBER OF ROOMS | NUMBER OF STUDENT STATIONS | NASF/ STATION | NASF/ ROOM | STATIONS/ ROOM |
|----------------------------|---------------|-----------------------|----------------------------------|------------------|---------------|-------------------|
| Classrooms | 91 | 144 | 4,360 | 21 | 632 | 30 |
| Class Laboratories | 44 | 85 | 1,060 | 41 | 578 | 12 |
| Research & Research Train. | 341 | 967 | 1,168 | 269 | 353 | 1.2 |
| Library | 55 | -- | 998 | 55 | -- | -- |
| Auditoria | 18 | 6 | 1,438 | 11 | 2,667 | 240 |
| Faculty Offices | 225 | 1,375 | -- | -- | 161 | -- |

The distribution of classroom and class laboratory capacities at schools of public health is heavily weighted toward the smaller size categories for the publicly controlled schools, while the privately controlled schools report a larger portion of their rooms in the larger size categories. This unexplained but obvious difference is detailed in Figure 3.VII.B.

FIGURE 3.VII.B
THE EFFECT OF CONTROL OF PUBLIC HEALTH SCHOOL ON THE DISTRIBUTION
OF CLASSROOMS AND LABORATORIES, FALL, 1973



2. The Student Population Using the Current Inventory

The responding schools of public health indicated that the total FTE enrollment as of the Fall, 1973 was 3,254. Just over 63% of the students attended publicly controlled schools, with the remaining 37% enrolled in the private sector. Just under half (44%) of the students were reported to be located in innercity settings, with the remainder in outercity locales.

TABLE 3.VII.5
FTE ENROLLMENT OF PUBLIC HEALTH SCHOOLS--FALL, 1973

| | NUMBER OF SCHOOLS | FTE ENROLLMENT | AVERAGE FTE PER SCHOOL |
|-------------------|----------------------|-------------------|---------------------------|
| TOTAL | 12 | 3,254 | 271 |
| Size of School | | | |
| Large | 2 | 934 | 467 |
| Medium | 5 | 1,516 | 305 |
| Small | 5 | 804 | 161 |
| Control | | | |
| Public | 7 | 2,061 | 294 |
| Private | 5 | 1,193 | 239 |
| Geographic Locale | | | |
| Innercity | 6 | 1,435 | 239 |
| Outercity | 6 | 1,819 | 303 |
| Census Region | | | |
| Northeast | 4 | 808 | 202 |
| Northcentral | 1 | 356 | 356 |
| South | 3 | 1,103 | 368 |
| West | 4 | 987 | 247 |

3. Adequacy of the Inventory

a. Condition of Space

Just under 81% of the 916,000 NASF of public health schools' nonclinical instruction facilities were reported to be "satisfactory for program purposes". Of the remaining 19% (175,000 NASF), 99,000 were perceived as needing replacement (prior to the effects of current construction

programs) and 76,000 NASF could be brought to a satisfactory state through remodeling. There is a pronounced but irregular relationship between the size of FTE enrollment and the reported condition of space, with small schools perceiving only 108,000 of their 190,000 NASF inventory to be "satisfactory for program purposes" (see Table 3.VII.6).

When the respondent population is divided according to "locale of school" the portion of space reported as "unsatisfactory" is largest for inner-city schools (33%). Representing some 150,000 NASF, this space is split almost evenly between "needing remodeling" and "needing replacement".

TABLE 3.VII.6
CONDITION OF SPACE IN SCHOOLS OF PUBLIC HEALTH--FALL, 1973

| | TOTAL NASF (000) | SATISFACTORY | | NEEDS REMODELING | | NEEDS REPLACEMENT | |
|-------------------|------------------------|---------------|----|---------------------|----|----------------------|----|
| | | NASF (000) | % | NASF (000) | % | NASF (000) | % |
| TOTAL | 916 | 741 | 81 | 76 | 8 | 99 | 11 |
| Size of School | | | | | | | |
| Large | 280 | 195 | 70 | 70 | 25 | 15 | 5 |
| Medium | 446 | 438 | 98 | 5 | 1 | 3 | 1 |
| Small | 190 | 108 | 57 | 1 | 1 | 81 | 42 |
| Control | | | | | | | |
| Public | 432 | 374 | 87 | 5 | 1 | 53 | 12 |
| Private | 484 | 367 | 76 | 71 | 15 | 46 | 9 |
| Geographic Locale | | | | | | | |
| Innecity | 456 | 304 | 67 | 71 | 16 | 81 | 17 |
| Outercity | 460 | 437 | 95 | 5 | 1 | 18 | 4 |

The publicly controlled schools reported somewhat more satisfactory space (on a percentage basis) than did the private schools (87 versus 76%). Thus, as apparent in Table 3.VII.6, even though nearly half the inventory of nonclinical instruction facilities were controlled by the public sector, the number of NASF needing remodeling or replacement is much greater for the private sector.

The problem of unsatisfactory condition, most prevalent in the small schools of public health, was spread over most room-types constituting their nonclinical instruction facilities inventory. However, classrooms, research and research training space, faculty office space, and auditoria ranged between 48% and 67% unsatisfactory, and were thereby the greatest contributors to the problem.

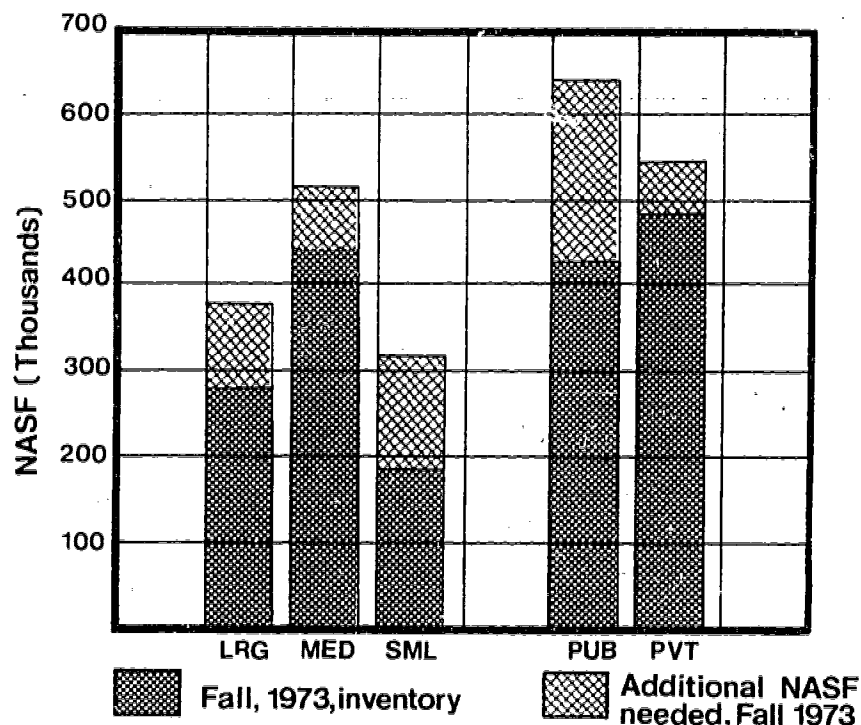
b. Need for Nonclinical Facilities as of Fall, 1973

Although a portion of the facilities need which existed as of the survey date would be mitigated by the ongoing construction and remodeling programs of respondents, their perceptions of need at that time give us insight into the facilities configurations felt to be necessary for satisfactorily accommodating their then-existing enrollment.

In all, seven schools of public health perceived a need for 269,000 additional NASF of nonclinical instruction facilities. When expressed as a portion of the aggregate fall, 1973 inventory, this need was over 29% of that inventory. More poignantly, perhaps, it was 53% of the inventory of those schools expressing a need for space.

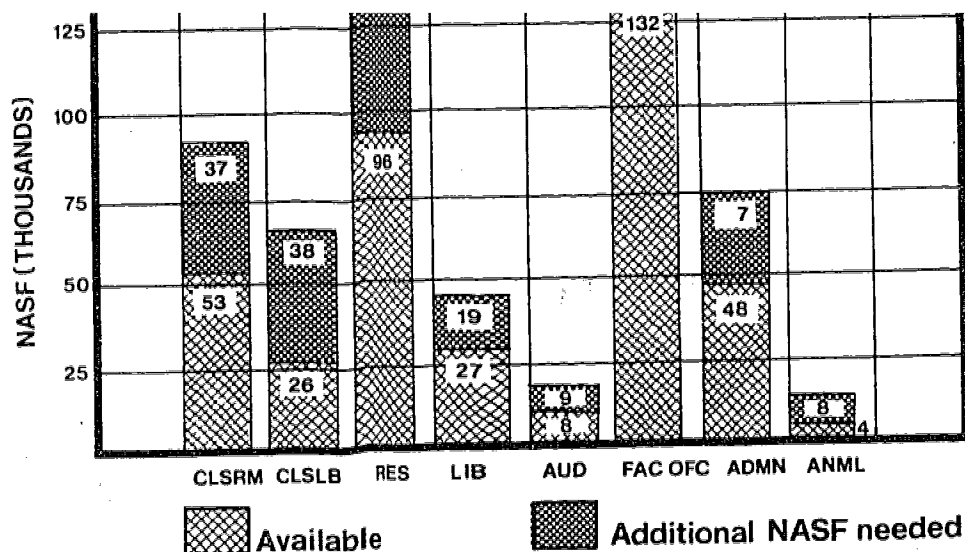
As may be seen in Figure 3.VII.C, the publicly controlled schools reported the greatest portion of the perceived needs, a portion which, if fulfilled, would bring the public sector above the private sector in terms of total NASF. By the same token, the need reported by the private schools represents nearly 60% of their total availability of nonclinical instruction facilities as of the survey date.

FIGURE 3.VII.C
PUBLIC HEALTH SCHOOLS' PERCEIVED NONCLINICAL
FACILITIES NEEDS AS OF FALL, 1973



Of the total perceived need, 179,000 NASF (67%) was considered to be primarily due to overcrowding. Facilities obsolescence, primarily focused in faculty offices and administrative areas, accounted for 51,000 NASF of the overall need, with the remaining 39,000 NASF divided nearly equally between the problems of poor condition and "missing" from certain respondents' facilities configurations.

The "desired" space distribution profile (obtained by adding "needs" to the 1973 inventory) was little different from that which existed as of the survey date, either in the aggregate, or upon grouping of schools according to our analysis parameters. Using, as a base, the NASF of facilities "allocated" to only those schools reporting a need, Figure 3.VII.D gives insight into the degree to which these needs were felt by the schools involved.



With regard to library facilities in particular, five of the nine respondents who answered the question concerning "enrollment versus library capacity" indicated either that a "good match" existed between available library space and enrollment, or that additional students (20% or more) would not adversely impact the use of the library. The remaining 4 respondents to the question perceived either "modestly" or "highly" overcrowded conditions in library space, with equal frequency. All of the latter figures, on a percentage basis, held constant as a function of size and control of school.

The survey instrument also attempted to gain an overview of that which the respondents considered the minimum non-facilities need for satisfactory accommodation of their fall, 1973 enrollment. For the 9 schools responding to this question, the needs most often mentioned (7 schools) were those for additional faculty and support staff (306 and 337, respectively), with the second most frequently mentioned need (6 schools) that for an additional \$1.2 million in operating funds (see Table 3.VII.7).

TABLE 3.VII.7
PUBLIC HEALTH SCHOOLS' MINIMUM NON-FACILITIES NEEDS FOR
ACCOMMODATING FALL, 1973 ENROLLMENT

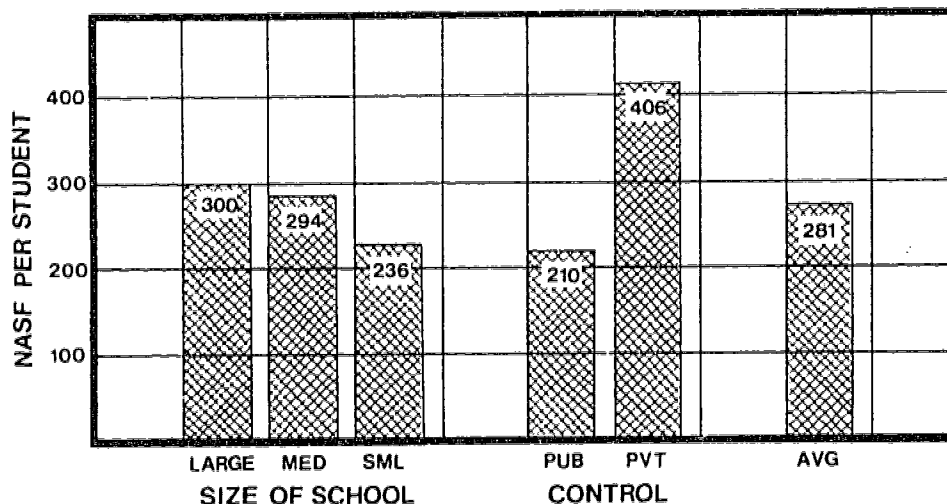
| | NEEDED FTE FACULTY | NEEDED SUPPORT STAFF | OPERATING FUNDS (\$000) | EQUIPMENT FUNDS (\$000) |
|-------------------|--------------------------|----------------------------|-------------------------------|-------------------------------|
| Number of Schools | 7 | 7 | 6 | 4 |
| Total Need | 306 | 337 | 1,240 | 253 |
| Control | | | | |
| Public | 37 | 65 | 400 | 20 |
| Private | 269 | 272 | 840 | 233 |

4. Resource Usage

a. Space and Stations Available per Student

Respondents indicated that the average NASF of nonclinical instruction facilities per student was 281, ranging as high as 745 and as low as 121 NASF per student. Space per student tended to vary greatly as a function of control of school, and slightly with size of school, as is apparent from Figure 3.VII.E.

FIGURE 3.VII.E
NASF PER STUDENT BY SIZE AND CONTROL, SCHOOLS OF PUBLIC HEALTH--FALL, 1973



The wide difference between the sectors' figures is due in part to the heavy research orientation of some privately controlled schools, a number of which are highly prestigious. Table 3.VII.8 details the NASF per student for each room-type, as a function of the various grouping parameters used in this analysis.

TABLE 3.VII.8
NASF PER STUDENT BY ROOM-TYPE, SCHOOLS OF PUBLIC HEALTH--FALL, 1973

| | TOTAL | CLASSROOM | CLASS LABORATORY | RESEARCH & RESEARCH TRAINING | LIBRARY | AUDITORIUM | FACULTY OFFICE | ADMIN-ISTRATIVE OFFICE | ANIMAL FACILITIES |
|-------------------|-------|-----------|------------------|------------------------------|---------|------------|----------------|------------------------|-------------------|
| TOTAL | 281 | 28 | 14 | 105 | 17 | 6 | 68 | 32 | 14 |
| Size of School | | | | | | | | | |
| Large | 300 | 37 | 15 | 99 | 16 | 5 | 76 | 30 | 21 |
| Medium | 294 | 20 | 15 | 122 | 16 | 7 | 67 | 36 | 11 |
| Small | 236 | 31 | 10 | 80 | 19 | 4 | 62 | 26 | 9 |
| Control | | | | | | | | | |
| Public | 210 | 21 | 13 | 63 | 14 | 1 | 54 | 37 | 7 |
| Private | 406 | 40 | 14 | 177 | 23 | 13 | 93 | 23 | 25 |
| Geographic Locale | | | | | | | | | |
| Innecity | 318 | 42 | 13 | 114 | 21 | 5 | 75 | 30 | 21 |
| Outercity | 253 | 17 | 14 | 98 | 14 | 6 | 63 | 33 | 8 |

Classroom stations per student averaged 1.34, with a high of 3.33 and a low of .11. Stations per student figures have a tendency to decrease as schools decrease in size, while the private sector reported a somewhat higher "stations per student" average for classrooms than schools of the public sector. Finally, innercity schools exhibited nearly three times the stations per student than did outercity schools, as seen in Table 3.VII.9.

TABLE 3.VII.9
CLASSROOM AND CLASS LABORATORY STATIONS PER STUDENT,
SCHOOLS OF PUBLIC HEALTH--FALL, 1973

| | CLASSROOM STATIONS | CLASSROOM STATIONS PER STUDENT | CLASS LABORATORY STATIONS | CLASS LABORATORY STATIONS PER STUDENT |
|-------------------|-----------------------|--------------------------------------|---------------------------------|--|
| TOTAL | 4,360 | 1.34 | 1,060 | .34 |
| Size of School | | | | |
| Large | 1,658 | 1.78 | 361 | .39 |
| Medium | 1,708 | 1.13 | 498 | .33 |
| Small | 994 | 1.24 | 201 | .32 |
| Control | | | | |
| Public | 2,318 | 1.12 | 608 | .32 |
| Private | 2,042 | 1.71 | 452 | .38 |
| Geographic Locale | | | | |
| Innercity | 2,896 | 2.02 | 465 | .37 |
| Outercity | 1,464 | .80 | 595 | .33 |

Class laboratories, although exhibiting the above patterns, tended to show them very weakly, and in fact form nearly a constant ratio in comparison with the fluctuations observed in classroom stations per student.

b. Usage of Classrooms

One of the major differences between schools of public health and the other respondents to this survey is the nature of their instruction in classroom and class laboratory facilities. While for basic biological sciences instruction in classrooms of other health professions schools,

80% is the typical figure given, schools of public health report 13%: and while the amount of classroom usage for pursuits other than the biological or clinical sciences is typically 0 - 10% at other health professions schools, for public health it is 76%.

The average classroom was used 724 hours during the academic year, with schools in the public sector reporting three times the usage, per room, as schools in the private sector. Publicly controlled schools averaged 1,062 hours of usage per classroom (per year), while schools in the private sector averaged only 358 hours per year (see Table 3.VII.10).

TABLE 3.VII.10
USAGE OF CLASSROOMS, SCHOOLS OF PUBLIC HEALTH--FALL, 1973

| | TOTAL HOURS* OF USAGE PER YEAR (000) | NUMBER OF ROOMS | MEAN USAGE PER YEAR (HOURS) |
|-------------------|--|-----------------------|-----------------------------------|
| TOTAL | 109 | 150 | 724 |
| Size of School | | | |
| Large | 36 | 49 | 739 |
| Medium | 39 | 59 | 664 |
| Small | 33 | 42 | 789 |
| Control | | | |
| Public | 83 | 78 | 1,062 |
| Private | 26 | 72 | 358 |
| Geographic Locale | | | |
| Innercity | 57 | 81 | 699 |
| Outercity | 52 | 69 | 753 |

* Sums for each group may not equal total due to round-off error.

Classroom usage tended to increase only slightly with increasing room size, and may be considered invariant as a function of size of room. This constancy appears to hold for each of the various groupings used in the analysis -- and even the large difference between public and private schools' usage of classrooms is maintained for each room size.

Before discussing the results of our room-use and student station utilization computations, we recall the caveats of PART I in which we noted that our purpose in such computations was that of comparative analysis. Added to the fact that the public health curriculum includes a significant amount of field training (thereby depressing the utilization percentages), our method substitutes 2,080 hours for the academic year reported by respondents. Since 2,080 hours (40 hours x 52 weeks) is greater than the typical academic year, the result is a further lowering of the utilization rates. This occurs since our utilization formula is given, in essence, by:

$$\frac{\text{resource hours used}}{\text{resource hours available}} \times 100 = \% \text{ utilization,}$$

whether the resource being analyzed is rooms or student stations. "Hours available" would ordinarily have been respondents' reported "academic year", but the 2,080 hour substitution is an increase in the denominator of the formula, and it thus depresses the results (see Appendix G for the computational details of the method).

Room utilization, the percentage of the "available" hours that the rooms are used during the academic year, averaged 32% for the classrooms of the 11 respondent schools of public health for whom room-use data were complete. Public schools were as much above this mean figure as private schools are below it, reporting 48% and 17% room utilization, respectively (a result anticipated from the analysis of average hours of room-use per year).

Classroom student station utilization (occupancy) figures averaged 19%, ranging from 7 to 45%. Schools in the public sector showed equal station utilization to those in the private sector. Recalling the much greater "mean hours per year" usage figure for publicly-controlled classrooms, the implication is that schools of the public sector are utilizing smaller-group teaching methods (also inferred from a 4:1 student to teacher ratio) not in concert with the room-sizes (number of stations) which existed in their fall, 1973 inventory (see Table 3.VII.11).

TABLE 3.VII.11
UTILIZATION OF CLASSROOMS AND CLASSROOM STUDENT
STATIONS, SCHOOLS OF PUBLIC HEALTH--FALL, 1973

| | ROOM UTILIZATION (%) | STUDENT STATION UTILIZATION (%) |
|-------------------|----------------------------|--|
| TOTAL | 32 | 19 |
| Size of School | | |
| Large | 36 | 13 |
| Medium | 32 | 20 |
| Small | 26 | 29 |
| Control | | |
| Public | 48 | 19 |
| Private | 17 | 19 |
| Geographic Locale | | |
| Innercity | 28 | 14 |
| Outercity | 36 | 29 |

NOTE: While station utilization (occupancy) can theoretically be no greater than room utilization at a particular school, occasionally, as above (small schools, private), a group of schools exhibits this anomaly. It occurs here because the eleven schools used in the room-use computations were not the same used in the computations for station use; and with the small sample sizes involved in a given grouping, each school has a marked impact on the group mean.

As we group the schools by size category, we find that station utilization for classrooms tends to increase with decreasing school size, from 13% (large schools) to 29% for the small schools. Since only the large schools typically reported the larger sized classrooms, the major portion of the hypothesized mismatches between room size and teaching group size may lie with these larger schools. This hypothesis is strengthened by virtue of the opposite pattern of room-utilization: it is highest at the larger schools, an expected result given small group teaching--and the resulting requirement to more heavily utilize the existing large rooms.

c. Class Laboratory Utilization

Given the nature of the typical public health curriculum, class laboratories were used to a negligible degree for clinical sciences instruction, with respondents indicating an equal division in space usage between "basic sciences" and "other" purposes. The average room, whether general or special purpose, was used upward of 750 hours per year.

TABLE 3.VII.12
CLASS LABORATORY USAGE, SCHOOLS OF PUBLIC
HEALTH--FALL, 1973

| | NUMBER OF CLASS LABORATORIES | TOTAL HOURS USAGE PER YEAR (000) | MEAN HOURS OF USAGE PER YEAR | ROOM UTILIZATION (%) |
|-------------------|------------------------------------|--|------------------------------------|----------------------------|
| TOTAL | 85 | 64 | 753 | 36 |
| Size of School | | | | |
| Large | 23 | 15 | 652 | 32 |
| Medium | 43 | 31 | 721 | 35 |
| Small | 19 | 18 | 947 | 45 |
| Control | | | | |
| Public | 56 | 46 | 821 | 40 |
| Private | 29 | 18 | 621 | 29 |
| Geographic Locale | | | | |
| Innercity | 35 | 26 | 743 | 36 |
| Outercity | 50 | 38 | 760 | 36 |

As may be seen in Table 3.VII.12, percent room utilization varies strongly with school size and control. However, in the case of school size, the pattern of differences is the converse of that exhibited by classroom utilization.

Class laboratory occupancy (station utilization) figures will not be dealt with herein, due to the great impact (given our small sample sizes) of four large data errors which had not been resolved as of this writing. It can only be stated with some certainty that, even with the aggregate utilization rates masked as they are, resolution of the errors would have resulted in figures closely approaching the class laboratory room-use figures described above.

d. Faculty Offices

The total NASF of faculty office space per faculty member was approximately 196. Schools of the public and private sectors reported being nearly equidistant from the mean on this measure, with the private sector reporting at the lower end of the scale. The relationships exhibited between "size" and locale of school and NASF per faculty member did not follow a specific pattern, although differences among these groups were quite distinct (see Table 3.VII.13).

TABLE 3.VII.13
NASF PER FACULTY, SCHOOLS OF PUBLIC HEALTH--FALL, 1973

| | SCHOOLS REPORTING FACULTY | NASF OF FACULTY OFFICE SPACE (000) | FTE FACULTY | NASF PER FTE FACULTY MEMBER |
|-------------------|---------------------------------|--|----------------|--------------------------------------|
| TOTAL | 11 | 203 | 1,038 | 196 |
| Size of School | | | | |
| Large | 2 | 71 | 446 | 159 |
| Medium | 4 | 82 | 314 | 261 |
| Small | 5 | 50 | 278 | 179 |
| Control | | | | |
| Public | 6 | 92 | 431 | 213 |
| Private | 5 | 111 | 607 | 182 |
| Geographic Locale | | | | |
| Innercity | 5 | 88 | 516 | 171 |
| Outercity | 6 | 115 | 522 | 220 |

e. Animal Facilities

The 10 schools of public health responding to the relevant questions indicated that 36% of their animal facilities were used for instructional purposes and the remainder (64%) were used for research. The larger schools in the public sector indicated a higher than average instructional usage (63%), while the smaller schools were much more research oriented in their animal facilities usage (86%). While it is apparent that it is

subject-matter variables which are causing much of the variation in this and other data, such variables were outside the scope of the current effort.

f. Joint-Utilization of Classrooms and Class Laboratories

While schools of public health indicated a large availability of joint-use classroom facilities (56 rooms), it is found that their usage of such space was but a small portion of their overall usage of corresponding "allocated" facilities. The ratio of "joint-use" room hours to "allocated" room-hours was, for the subpopulation under analysis, under 8% for classroom-type instructional space. Joint-usage of class laboratories was negligible. Public health school-controlled class laboratories were not used by other students, and only negligible use of controlled classrooms (90 hours per year) was reported.

C. ONGOING CONSTRUCTION AND REMODELING, AND THE POST CONSTRUCTION INVENTORY

One construction program, and one remodeling program, were reported by the respondent schools of public health, thereby precluding analysis of the type performed elsewhere in this report. In brief, the reported programs involved \$2.7 million for new construction, and \$19,000 for remodeling, both sums incurred by publicly controlled schools. Funds were obtained from state and local sources. Representing 34,000 GSF of new facilities to be controlled by the respondent involved, the majority of the new construction had as its purpose the replacement of obsolete research and research training facilities. Thus, the "perceived need as of fall, 1973", reported previously, would remain virtually unchanged, except for a major reduction in the need for research and research training space. Referring back to Figure 3.VII.D, the 80,000 NASF need for research and research training space would be reduced to 69,000; while the 37,000 NASF need for additional classroom facilities would reduce to 34,000 due to the effect of the remodeling program.

It should also be noted that as a function of the reported construction, enrollment was expected to grow only slightly -- from 3,254 to 3,271 students following completion of construction.

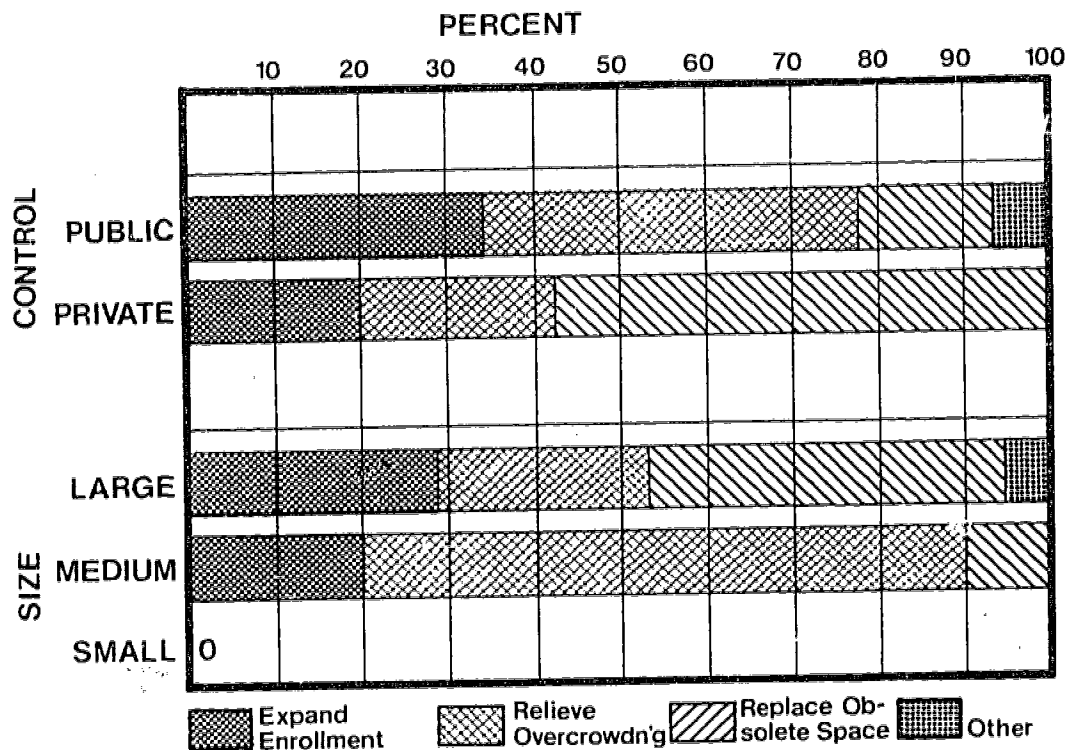
D. THE 1983 LOOK AHEAD

Seven major construction or remodeling programs are planned for the coming decade. Four of the 12 respondents indicated plans for the construction of 280,000 NASF of facilities by 1983, exclusive of ongoing construction. These programs range in size from 15,000 to 134,000 NASF. Just over half of this new construction would take place at three schools in the public sector; with the remaining program, the largest, taking place at a private school.

Planned remodeling was reported to a much greater extent (610,000 NASF) than new construction. Nearly all of this activity would take place at a single publicly controlled school given that "funds became available".

The reported purposes of the construction planned by respondents between the end of ongoing construction efforts and the fall, 1983, indicate that overcrowding and obsolescence represented the perceived priority needs: large schools concentrated on relieving obsolescence; while medium sized schools planned to concentrate on their perceived overcrowding problem. Schools in the public sector indicated that approximately one-third of the new construction would be for enrollment expansion, an eventuality supported by their enrollment projections for academic year 1983-84 (see Figure 3.VII.F).

FIGURE 3.VII.F
PUBLIC HEALTH SCHOOLS' PURPOSES OF PLANNED CONSTRUCTION THROUGH 1983



Between the survey date and the 1983 academic year, it is expected that the public health schools will experience a vigorous enrollment growth of 40%: from a head count of 3739 to a head count of 5235. Schools in the public sector expect to exhibit a 49% growth rate over the next decade; while the private schools predict a 24% increase over current enrollment levels. Most of the growth (on a percentage basis) will occur in the West, whose 4 schools expect to increase enrollment by 78% over that which existed as of the survey date.

Table 3.VII.14 summarizes the relationship between NASF and enrollment as they are expected to change between the survey date and academic year 1983-84. Since the survey instrument did not distinguish among room-types, the figures include "on-site patient care" and "other" facilities for both the 1973 and 1983 fig-

ures. Recalling past discussion inferring small group teaching in "large-group oriented" facilities, it is interesting to note that for 1983, NASF per student decreases in nearly every category.

TABLE 3.VII.14
CHANGES IN NASF PER STUDENT, SCHOOLS OF PUBLIC HEALTH--1973-1983

| | 1973 | | | 1983 | | |
|-------------------|---------------|--------------------------------------|------------------------|---------------|--------------------------------------|------------------------|
| | NASF (000) | NUMBER OF STUDENTS (HEADCOUNT) | NASF PER STUDENT | NASF (000) | NUMBER OF STUDENTS (HEADCOUNT) | NASF PER STUDENT |
| TOTAL | 999 | 3,739 | 267 | 1,099 | 5,235 | 210 |
| Size of School | | | | | | |
| Large | 319 | 1,140 | 280 | 389 | 1,526 | 255 |
| Medium | 475 | 1,644 | 289 | 505 | 2,385 | 212 |
| Small | 205 | 955 | 215 | 205 | 1,324 | 155 |
| Control | | | | | | |
| Public | 461 | 2,246 | 205 | 574 | 3,371 | 170 |
| Private | 538 | 1,493 | 360 | 525 | 1,864 | 282 |
| Geographic Locale | | | | | | |
| Innecity | 505 | 1,845 | 274 | 492 | 2,412 | 204 |
| Outercity | 494 | 1,894 | 261 | 607 | 2,823 | 215 |
| Census Region | | | | | | |
| Northeast | 381 | 969 | 393 | 381 | 1,062 | 359 |
| Northcentral | 48 | 356 | 135 | 85 | 372 | 228 |
| South | 354 | 1,335 | 265 | 424 | 1,876 | 226 |
| West | 216 | 1,079 | 200 | 209 | 1,925 | 109 |

VIII. SCHOOLS OF VETERINARY MEDICINE

A. INTRODUCTION

As in the case of most of the other professions surveyed, schools of veterinary medicine also typically offer a 4-year course of study, following undergraduate education, with the first two years involved primarily with basic sciences instruction, and the last two years involved with clinical instruction. Occasionally, a collapsed 3-year program is offered (two schools of veterinary medicine offered such a program as of the survey date). Veterinary medical education is similar to human medicine to the extent that human and animal physiology and biochemistry are similar; and animals, as well as humans, are treated on both inpatient and outpatient bases. As might be expected, the larger range of sizes germane to animals implies larger clinical facilities on a "patient-by-patient" basis: while this study does not concern itself with the amount of square footage devoted to patient care areas, the room type "animal facilities" may, in this context, be expected to represent a much larger proportion of a given educational facility's configuration than for schools of any other profession.

Due to the fact that, according to those knowledgeable in the field, there is no particular trend toward earlier introduction of clinical teaching experience into the veterinary medical schools' curricula, no curriculum type variable was applied to these schools. The respondent schools were, however, grouped according to size category. Based on the frequency diagram of FTE enrollment sizes, the enrollment ranges applied to the "small", "medium", and "large" size groups were 0-200 students, 201-350 students, and above 350 students, respectively. The following table summarizes the manner in which we arrived at a response rate of 85% for schools of veterinary medicine; and details the parameterization of those schools to be used in the analytic review which follows.

TABLE 3.VIII.1
DERIVATION OF RESPONSE RATE FOR SCHOOLS OF VETERINARY MEDICINE

| SCHOOLS OF: VET. MED. | NUMBER OF SCHOOLS IN UNIVERSE | NON-RESPONDENT | | | RESPON- DENTS (NO. 1 - NO.2) | NEW SCHOOLS RESPON- DING | ESTAB- LISHED RESPON- DENTS (#3-#4) | NON-SUB- STANTIVE FORMS ESTAB. SCHOOLS | RE- SPONSES USED IN ANALYSIS (#5-#6) | ANALYZED SCHOOLS AS A % OF ESTAB- LISHED UNIVERSE (7/(1+2a-4)) |
|--------------------------|---|----------------|-----------------------------|------------------------|---------------------------------------|-----------------------------------|---|--|--|--|
| | | NEW SCHOOLS | ESTAB- LISHED SCHOOLS | TOTAL (#2a+ #2b) | | | | | | |
| | #1 | #2a | #2b | #2c | #3 | #4 | #5 | #6 | #7 | #8 |
| TOTAL | 20 | 0 | 1 | 1 | 19 | 2 | 17 | 0 | 17 | 94 |
| Large | 8 | 0 | 0 | 0 | 8 | 0 | 8 | 0 | 8 | 100 |
| Medium | 8 | 0 | 1 | 1 | 7 | 0 | 7 | 0 | 7 | 88 |
| Small | 4 | 0 | 0 | 0 | 4 | 2 | 2 | 0 | 2 | 100 |
| Public | 18 | 0 | 1 | 1 | 17 | 2 | 15 | 0 | 15 | 94 |
| Private | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 100 |
| Innecity | | | | | | | | | 2 | |
| Outercity | | | | | | | | | 11 | |
| Suburban | | | | | | | | | 3 | |
| Rural | | | | | | | | | 1 | |
| Northeast | 2 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 50 |
| Northcentral | 8 | 0 | 0 | 0 | 8 | 0 | 8 | 0 | 8 | 100 |
| South | 7 | 0 | 0 | 0 | 7 | 2 | 5 | 0 | 5 | 100 |
| West | 3 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 3 | 100 |

The two new schools of veterinary medicine, in responding to the survey, indicated a combined NASF of 10,000. One school was already accommodating an FTE enrollment of 36. While construction plans were not yet sufficiently formulated to give an accurate indication of their nature, it was reported by one of the two schools that enrollment was expected to grow to approximately 320 students.

B. THE FALL, 1973 INVENTORY OF NONCLINICAL INSTRUCTION FACILITIES

1. Description

The 17 responding schools of veterinary medicine reported 3.4 million GSF of allocated nonclinical instruction facilities, over 98% of which were owned or leased on a very long-term basis. The 3.4 million GSF represented Net Assignable Square Footage (NASF) of 2.39 million, 506,000 of which were reported as "on-site patient care" or "other" facilities, the remainder being classroom, laboratory, library, and so on. Since "other" facilities represented such a wide diversity among room-types, and since "on-site patient care facilities" was occasionally misconstrued to mean "on-campus" rather than "in-building", these two categories have been excluded from the analysis for comparability among schools. Table 3.VIII.2 derives the net figures for the NASF used in the analysis.

TABLE 3.VIII.2
INVENTORY OF NONCLINICAL FACILITIES, SCHOOLS
OF VETERINARY MEDICINE--FALL, 1973

| | NUMBER OF SCHOOLS (1) | TOTAL NASF (000) (2) | NASF (000) "ON-SITE PATIENT CARE" AND "OTHER" (3) | NASF (000) USED IN ANALYSIS ((2)-(3)) (4) | AVERAGE NASF (000) PER SCHOOL ((4)/(1)) (5) |
|-------------------|--------------------------------|-------------------------------|--|---|---|
| TOTAL | 17 | 2,391 | 506 | 1,885 | 111 |
| Size of School | | | | | |
| Large | 8 | 1,363 | 199 | 1,164 | 146 |
| Medium | 8 | 988 | 296 | 692 | 87 |
| Small | 1 | 40 | 11 | 29 | 29 |
| Control | | | | | |
| Public | 15 | 2,104 | 490 | 1,614 | 108 |
| Private | 2 | 287 | 16 | 271 | 136 |
| Geographic Locale | | | | | |
| Innercity | 2 | 460 | 62 | 398 | 199 |
| Outercity | 11 | 1,423 | 363 | 1,060 | 96 |
| Suburban | 3 | 468 | 70 | 398 | 133 |
| Rural | 1 | 40 | 11 | 29 | 29 |
| Census Region | | | | | |
| Northeast | 1 | 247 | 5 | 242 | 242 |
| Northcentral | 8 | 942 | 226 | 716 | 89 |
| South | 5 | 648 | 125 | 523 | 105 |
| West | 3 | 554 | 150 | 404 | 135 |

The largest reported inventory was 242,000 NASF, and the mean configuration size was 111,000 NASF. Configuration size varied with "control" and "locale": while the "average" publicly controlled school reported 108 thousand NASF, its counterpart in the private sector reported 136 thousand NASF of "allocated" space; and the two respondents from innercity locales reported an average of 199 thousand NASF as compared to an overall average of 99 thousand in the other locales.

As shown in the following table, the nonclinical instruction facilities were heavily weighted toward research and research training space and animal facilities, with over half the reported space in these areas. There was more than three times as much class laboratory space as classroom space reported.

TABLE 3.VIII.3
NONCLINICAL INSTRUCTION SPACE DISTRIBUTION PROFILE,
SCHOOLS OF VETERINARY MEDICINE--FALL, 1973

| ROOM TYPE | NASF (000) | PERCENTAGE (ROUNDED) |
|--------------------------------|------------|----------------------|
| Classrooms | 105 | 5.6 |
| Class Laboratories | 345 | 18.3 |
| Research and Research Training | 653 | 34.6 |
| Library | 53 | 2.8 |
| Auditoria | 13 | .7 |
| Faculty Offices | 170 | 9.0 |
| Administrative Areas | 97 | 5.1 |
| Animal Facilities | 451 | 23.9 |
| TOTAL | 1,885 | 100.0 |

This room-type profile remains relatively consistent when the schools are grouped by size, control, locale and census region, leading to the hypothesis that there was a somewhat "fixed" facilities configuration for schools of veterinary medicine.

The NASF figures reported by the schools are displayed on a per room and student station basis in Table 3.VIII.3. You will note that the reported NASF per student station (519 NASF) is less than the NASF per room (293 NASF). This likely indicates that a portion of the research space in schools of veterinary medicine is used exclusively for research purposes, with no student involvement.

TABLE 3.VIII.4
NASF PER ROOM AND STUDENT STATION,
SCHOOLS OF VETERINARY MEDICINE--FALL, 1973

| | NUMBER OF STUDENT STATIONS | NUMBER OF NASF (000) | NASF/STATION | NUMBER OF ROOMS | NASF/ROOM |
|------------------|----------------------------------|-------------------------|--------------|-----------------------|-----------|
| Classroom | 6,342 | 105 | 17 | 79 | 1,329 |
| Class Laboratory | 6,058 | 345 | 57 | 290 | 1,194 |
| Research | 985 | 653 | 519 | 2,226 | 293 |
| Library | 1,157 | 53 | 48 | -- | --- |
| Auditorium | 1,324 | 13 | 10 | 5 | 2,600 |
| Faculty Office | -- | 170 | --- | 1,953 | 87 |

Schools of veterinary medicine tended to use small class laboratories and large classrooms as seen in Figure 3.VIII.A. Since 11 of the 13 schools reporting room size data were in the public sector, this trend remains consistent in that sector. The private sector's 2 schools, however, while also exhibiting a propensity to use the large classrooms, also reported a preponderance of large class laboratories (see Figure 3.VIII.B) in direct contrast to the general rule.

FIGURE 3.VIII.A

DISTRIBUTION PROFILE OF CLASSROOM AND CLASS LABORATORY
CAPACITIES, PUBLIC SCHOOLS OF VETERINARY MEDICINE

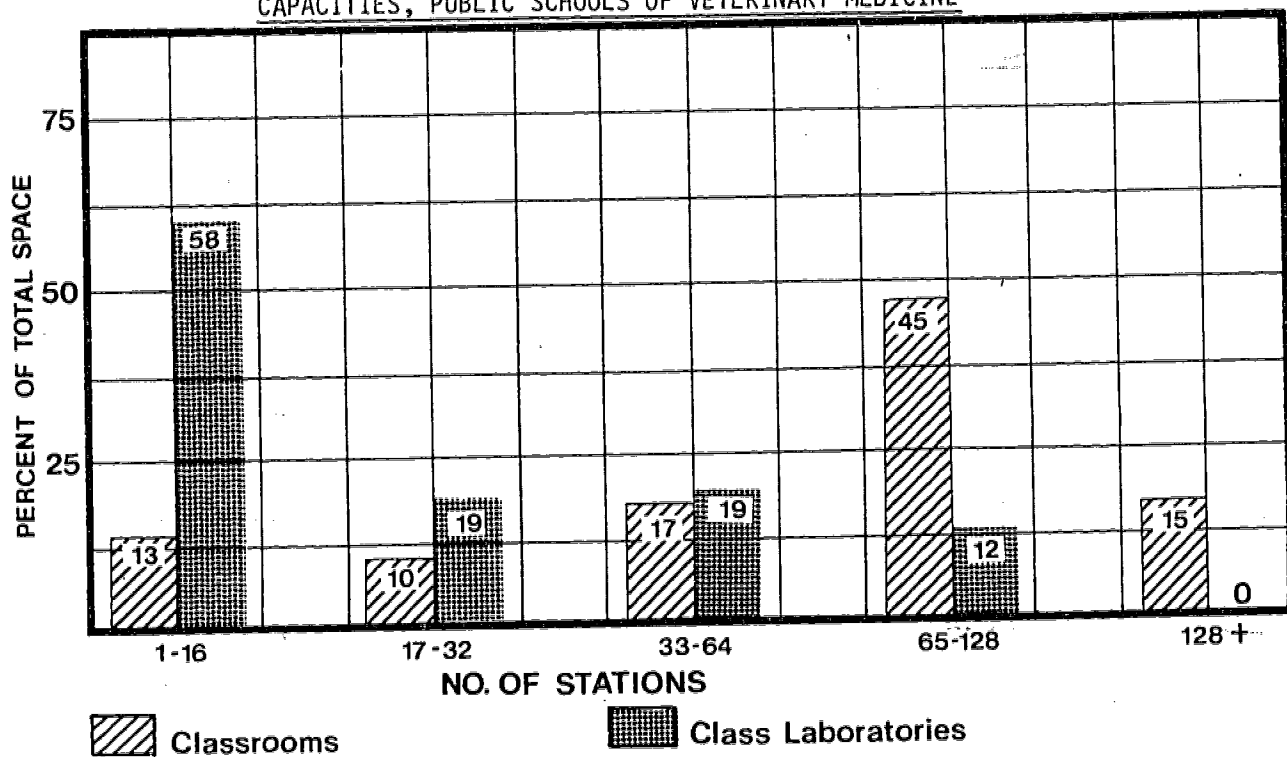
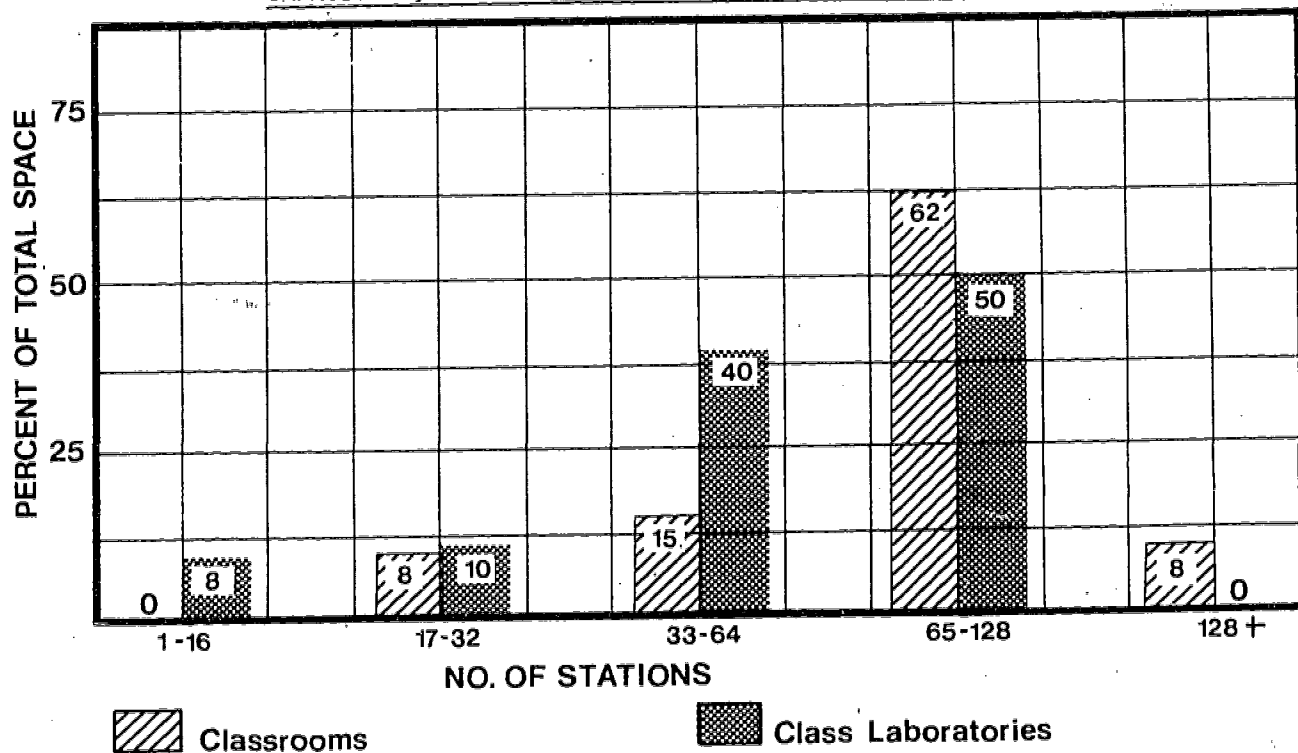


FIGURE 3.VIII.B

DISTRIBUTION PROFILE OF CLASSROOM AND CLASS LABORATORY
CAPACITIES, PRIVATE SCHOOLS OF VETERINARY MEDICINE



2. The Student Population Using the Fall, 1973 Inventory

Of the 5,999 students enrolled at the 17 responding schools of veterinary medicine, most were attending on a full-time basis since the FTE count was 5,877. The vast majority (91%) of the students were reported by the publicly controlled schools. Just over 2/3 of the student population were located in outer-city and suburban locales.

TABLE 3.VIII.5
ENROLLMENT AT SCHOOLS OF VETERINARY MEDICINE--FALL, 1973

| | NUMBER OF SCHOOLS | NUMBER OF UNDERGRAD- UATES (FTE) | NUMBER OF GRADUATE STUDENTS (FTE) | TOTAL FTE ENROLLMENT | AVERAGE FTE PER SCHOOL |
|-------------------|-------------------------|--|--|-------------------------|------------------------------|
| TOTAL | 17 | 5,268 | 609 | 5,877 | 346 |
| Size of School | | | | | |
| Large | 8 | 2,986 | 310 | 3,296 | 412 |
| Medium | 8 | 2,145 | 283 | 2,428 | 304 |
| Small | 1 | 137 | 16 | 153 | 153 |
| Control | | | | | |
| Public | 15 | 4,758 | 593 | 5,351 | 357 |
| Private | 2 | 510 | 16 | 526 | 263 |
| Geographic Locale | | | | | |
| Innecity | 2 | 644 | 56 | 700 | 350 |
| Outercity | 11 | 3,533 | 357 | 3,890 | 354 |
| Suburban | 3 | 954 | 180 | 1,134 | 378 |
| Rural | 1 | 137 | 16 | 153 | 153 |
| Census Region | | | | | |
| Northeast | 1 | 373 | 0 | 373 | 373 |
| Northcentral | 8 | 2,541 | 313 | 2,854 | 357 |
| South | 5 | 1,428 | 141 | 1,569 | 314 |
| West | 3 | 926 | 155 | 1,081 | 360 |

3. Adequacy of the Inventory

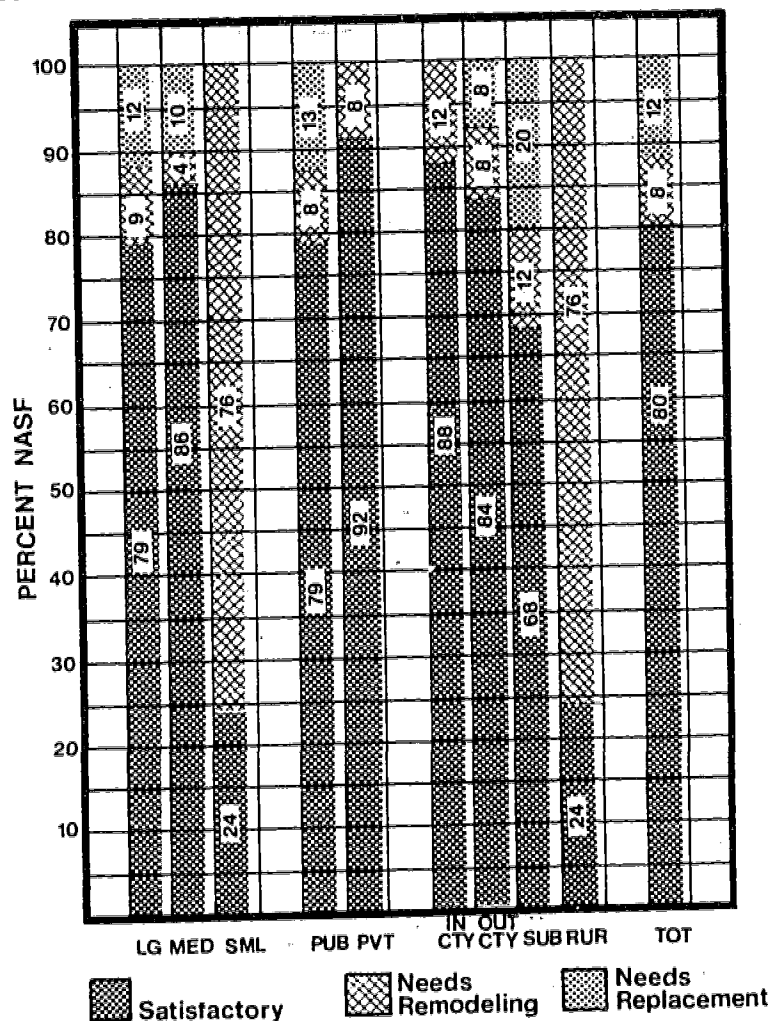
a. Condition of Space

Just over 80% of the 1.86 million NASF of veterinary medicine schools' non-clinical facilities are reported to be "satisfactory for program purposes".

Of the remaining 20% (368,000 NASF) over 210,000 were perceived as needing replacement (prior to the effects of current construction programs) and 150,000 could be brought to a satisfactory state through remodeling.

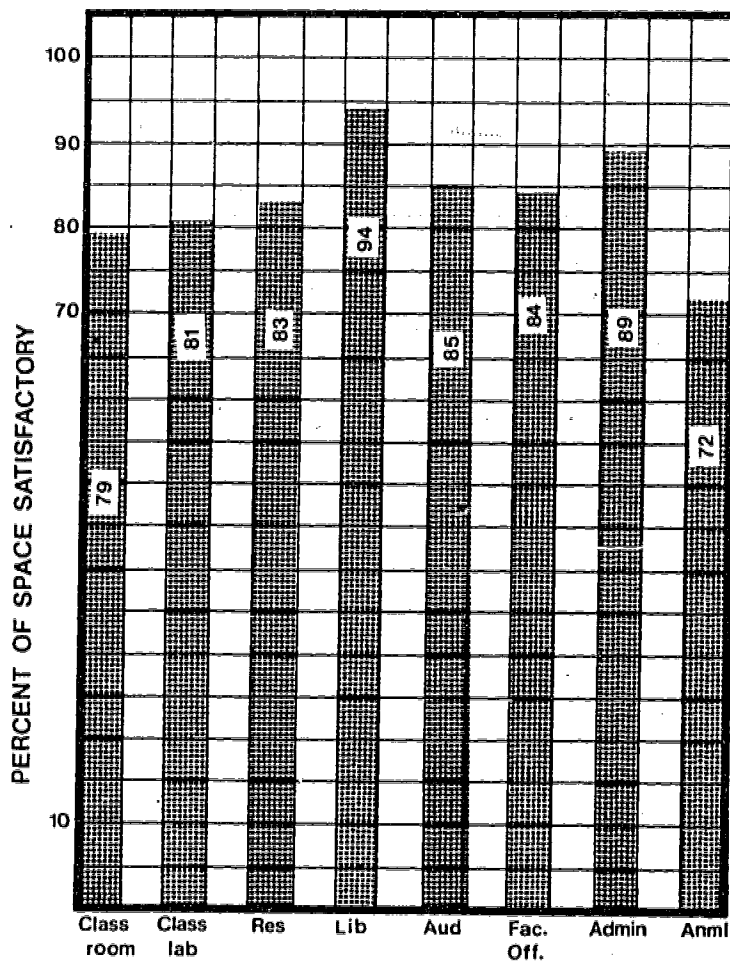
When the respondent population was divided according to "Locale of School" the portion of space reported as "Unsatisfactory" was largest for suburban and rural schools (35%). Innercity and outercity schools reported only 15% of their space as being unsatisfactory. The space considered "unsatisfactory" by the suburban and rural schools is split almost evenly between "needing remodeling" and "needing replacement".

FIGURE 3.VIII.C
CONDITION OF SPACE IN SCHOOLS OF VETERINARY MEDICINE--FALL, 1973



Perhaps of major significance to the schools of veterinary medicine is the room type "profile" of satisfactory space. As is seen in Figure 3.VIII.D, animal facilities were classified as only 72% satisfactory.

FIGURE 3.VIII.D
VETERINARY MEDICINE SCHOOLS' PROFILE OF SATISFACTORY SPACE--FALL, 1973

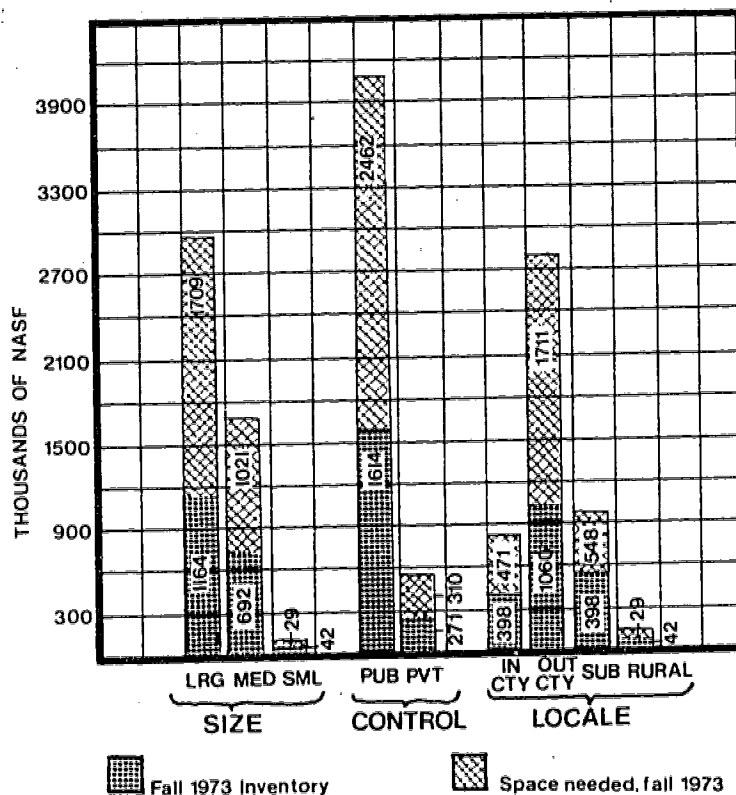


b. Need for Facilities as of Fall, 1973

In all, schools of veterinary medicine perceived a need for 890,000 new NASF. This need is nearly 47% when expressed as a portion of the aggregate fall, 1973 inventory. Need was not at all a function of school en-

rollment size but did differ greatly between public (53%) and private (14%). Outercity schools similarly seemed to feel a large space restriction (61%) compared to schools of the other locales (particularly inner-city, whose perceived 18% need is consistent with the relatively large amount of space reported by those schools). Schools in the north central census region, comprising 47% of the respondent population (on a number of schools basis), felt a need for a 77% space addition compared to 52% for the three western schools and less than 20% for the remaining 6 schools. The numbers of NASF involved in the above relative needs are displayed in Figure 3.VIII.E.

FIGURE 3.VIII.E
PERCEIVED SPACE NEEDS FOR SCHOOLS OF VETERINARY MEDICINE--FALL, 1973



Half of the space needed was to relieve overcrowding. This percentage was relatively stable over all the major room types.

When these needs are analyzed on a per-student basis, the changes in certain room-types become quite significant. Thus, for example, it is desired that animal and classroom facilities be increased by 2/3; and that class laboratory space per student be increased by 53%. Although small proportions of the overall space configuration, library and auditoria were reported to have the greatest need in proportion to existing space (100% and 200%, respectively).

Sixteen of the 17 responding schools of veterinary medicine reported various "minimum" needs (as constrained by the survey instrument) for satisfactory accommodation of their Fall, 1973 enrollment. Most often mentioned were the needs for additional faculty (13 schools), support staff (15 schools), and operating funds (13 schools) as shown in Table 3.VIII.6.

TABLE 3.VIII.6
VETERINARY MEDICINE SCHOOLS' MINIMUM NON-FACILITIES NEEDS
FOR ACCOMMODATING FALL, 1973 ENROLLMENT

| | FACULTY | SUPPORT STAFF | OPERATING FUNDS (\$000) |
|---------------------------------------|---------|------------------|-------------------------------|
| Total | 271 | 424 | 4,908 |
| Number of Schools Reporting a Need | 13 | 15 | 13 |
| Mean Need Reported | 21 | 28 | 378 |
| Size of School | | | |
| Large | 192 | 283 | 2,598 |
| Medium | 79 | 135 | 1,810 |
| Small | 0 | 6 | 500 |
| Control | | | |
| Public | 259 | 403 | 3,608 |
| Private | 12 | 21 | 1,300 |
| Geographic Locale | | | |
| Innecity | 25 | 35 | 800 |
| Outercity | 190 | 315 | 3,123 |
| Suburban | 56 | 68 | 485 |
| Rural | 0 | 6 | 500 |

c. Library Facilities

Only one of the 17 schools of veterinary medicine reported that any enrollment increase could be accommodated with the library facilities available as of Fall, 1973. In fact, 65% (11) of the respondents reported overcrowding to at least some degree, 4 schools to a high degree. Notably, library square footage per student station was reported to be among the lowest for all eight professions surveyed.

4. Resource Usage

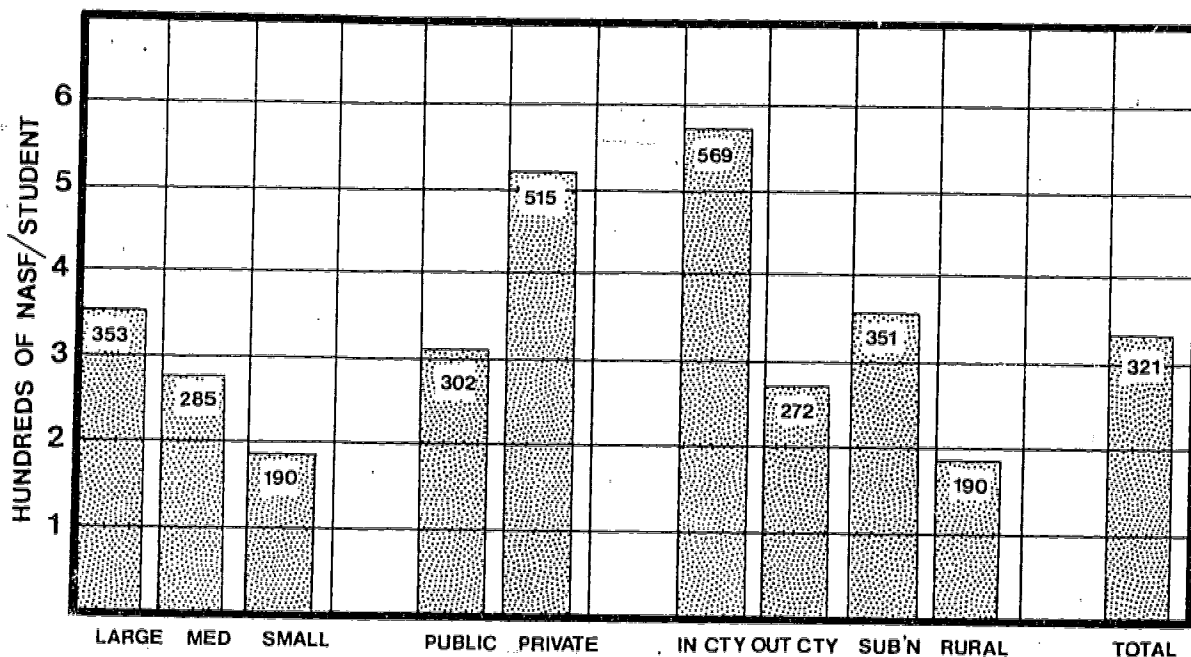
a. Space and Stations Available per Student

Respondents indicated an average NASF per student figure of 321, ranging as high as 649. Space-per student tends to decrease as "size" of school

decreases, with the schools in the "large" category reporting an average of 353 NASF per student, and the "small" schools reporting an average of 190 NASF per student.

In the aggregate, schools in the private sector reported nearly 70% more square footage per student (515) than schools in the public sector (302). The pattern, in other professions, of "cramped quarters" at the innercity schools is not followed by the schools of veterinary medicine as these schools averaged far more space per student than did the schools in the other locales (see Figure 3.VIII.F).

FIGURE 3.VIII.F
COMPARISON AND CONTRAST OF NASF PER STUDENT, SCHOOLS OF VETERINARY
MEDICINE--FALL, 1973



The relationships noted above hold relatively consistent as we view individual room types. One exception to this statement is library space in the three suburban schools. Whereas, overall, these schools are second to innercity schools in terms of NASF per student, they reported the lowest average library space per student.

370

326

Classroom stations per student averaged 1.41, with a high of 2.46 and a low of .52. Four schools reported having no classrooms under their day-to-day control. Large schools had approximately 50% more stations per student than did the medium and smaller schools. Class lab stations were not as numerous per student as were the classroom stations, averaging only 1.09 (with a range of .22 to 1.70).

The schools of veterinary medicine, in general, had access to about half as many joint-use classrooms and student stations as were allocated to them. Schools of medium size and/or suburban locale tend to be on the high side of this figure (see Table 3.VIII.7).

TABLE 3.VIII.7
JOINT-USE FACILITIES AVAILABLE TO SCHOOLS OF VETERINARY MEDICINE--FALL, 1973

| | CLASSROOMS | | | | CLASS LABORATORIES | | | |
|-------------------|--|-----------------------------------|------------------------------|--|--|-----------------------------------|------------------------------|--|
| | NUMBER OF "ALLOCATED" STUDENT STATIONS (1) | STATIONS PER STUDENT (2) | JOINT-USE STATIONS (3) | COL (3) AS A % OF COL (1) (4) | NUMBER OF "ALLOCATED" STUDENT STATIONS (5) | STATIONS PER STUDENT (6) | JOINT-USE STATIONS (7) | COL (7) AS A % OF COL (5) (8) |
| TOTAL | 6,342 | 1.41 | 3,597 | 57 | 6,048 | 1.09 | 648 | 11 |
| Size of School | | | | | | | | |
| Large | 4,619 | 1.61 | 1,656 | 36 | 3,295 | 1.00 | 208 | 6 |
| Medium | 1,557 | 1.05 | 1,941 | 124 | 2,584 | 1.23 | 440 | 17 |
| Small | 166 | 1.08 | 0 | 0 | 169 | 1.10 | 0 | 0 |
| Control | | | | | | | | |
| Public | 5,626 | 1.42 | 3,322 | 59 | 5,432 | 1.08 | 649 | 12 |
| Private | 716 | 1.36 | 275 | 38 | 616 | 1.17 | 0 | 0 |
| Geographic Locale | | | | | | | | |
| Innecity | 953 | 1.36 | 275 | 29 | 885 | 1.26 | 0 | 0 |
| Outercity | 3,990 | 1.36 | 2,219 | 56 | 4,033 | 1.13 | 538 | 13 |
| Suburban | 1,233 | 1.75 | 1,103 | 89 | 961 | .85 | 110 | 11 |
| Rural | 166 | 1.08 | 0 | 0 | 169 | 1.10 | 0 | 0 |

Joint-use class laboratory space was apparently not nearly as accessible as classroom space to the schools of veterinary medicine, probably due to the more specialized nature of class laboratory facilities. The joint-use class laboratories provided only an 11% addition to those laboratories controlled by (allocated to) respondents.

b. Usage of Classrooms

Fifty-three percent of respondents' classroom space is primarily devoted to instruction in the basic biological sciences, with 40% of the space devoted to instruction in the clinical sciences, and the remaining 6% of mixed usage. In general, these same distributions held when the schools were grouped by size, locale, and control. The major exception to these figures pertains to private and innercity schools which reported major amounts (40% to 75%) of space not dedicated to either purpose.

Before proceeding, it is important to recall the discussion of PART 1 in which it was indicated that our computational method for assessing utilization percentages was more suitable to comparative analysis than to absolute measurement. The percentage figures of this and the subsequent section are depressed to the extent that 2,080 hours is greater than the true number of hours in an academic year as reported by respondents. In essence, our formula for resource utilization is:

$$\frac{\text{resource-hours utilized}}{\text{resource-hours available}} \times 100,$$

regardless of whether that resource is a room or a student station. In the denominator, resource hours "available" is basically given by:

$$\text{resource count (e.g., number of rooms)} \times 2,080.$$

While the use of 2,080 makes all schools comparable, the resulting percentage figure should only be used for group-to-group comparisons rather than as a measure of utilization in the absolute, except as related to the fact

that by removing certain operational, policy, and other constraints, a school might indeed hold classes on a 52 week per year, 40 hour per week basis.

Overall, the average classroom was used 619 hours out of the academic year. On a base of 2,080 hours, and applying the "joint-usage correction factor" (as described in detail in Appendix G), classroom utilization among the 13 schools of veterinary medicine for whom data were complete averaged 35%. This figure remains fairly stable over the school groupings which include more than one or two schools (large, medium, public, outer-city, Northcentral, and South).

TABLE 3.VIII.8
CLASSROOM UTILIZATION, SCHOOLS OF VETERINARY MEDICINE--FALL, 1973

| | NUMBER OF SCHOOLS | MEAN HOURS OF USAGE PER YEAR | NUMBER OF ROOMS | CLASSROOM UTILIZATION PERCENTAGE |
|-------------------|-------------------------|------------------------------------|-----------------------|--|
| TOTAL | 13 | 619 | 79 | 35 |
| Size of School | | | | |
| Large | 7 | 594 | 51 | 36 |
| Medium | 5 | 734 | 24 | 37 |
| Small | 1 | 289 | 4 | 14 |
| Control | | | | |
| Public | 11 | 676 | 67 | 39 |
| Private | 2 | 310 | 12 | 15 |
| Geographic Locale | | | | |
| Innercity | 2 | 409 | 13 | 20 |
| Outercity | 8 | 711 | 44 | 35 |
| Suburban | 2 | 634 | 18 | 53 |
| Rural | 1 | 289 | 4 | 14 |

Classroom student station utilization figures were neither as high nor as variable as the corresponding room utilization percentages. The average base), and the pattern of utilization percentages tended to follow that for room usage when the schools were grouped according to the analysis parameters used herein. Table 3.VIII.9 displays the "raw material" entering into the computation of student station utilization rates, and col-

umn 5 of that table shows, as its heading, the manner in which this raw material is organized to produce the percentage.

TABLE 3.VIII.9
CLASSROOM STUDENT STATION UTILIZATION,
SCHOOLS OF VETERINARY MEDICINE--FALL, 1973

| | "CONTROLLED" STATION HOURS* AVAILABLE (1) | STATION HOURS* USED BY VET. MED. STUDENTS (2) | "CONTROLLED" STATION HOURS* "BORROWED" BY OTHER SCHOOLS (3) | "JOINT-USE" STATION HOURS* BORROWED BY VET. MED. STUDENTS (4) | UTILIZATION PERCENT $\frac{(2)+(3)}{(1)+(4)} \times 100$ (5) |
|-------------------|---|--|---|---|---|
| TOTAL | 12.78 | 1.98 | .67 | .61 | 20 |
| Size of School | | | | | |
| Large | 9.19 | 1.14 | .65 | .16 | 19 |
| Medium | 3.24 | .79 | .02 | .45 | 22 |
| Small | .35 | .05 | 0 | 0 | 14 |
| Control | | | | | |
| Public | 11.29 | 1.75 | .67 | .60 | 20 |
| Private | 1.49 | .23 | 0 | .01 | 15 |
| Geographic Locale | | | | | |
| Innecity | 1.98 | .34 | 0 | .01 | 17 |
| Outercity | 7.88 | 1.15 | .10 | .46 | 15 |
| Suburban | 2.57 | .44 | .57 | .14 | 38 |
| Rural | .35 | .05 | 0 | 0 | 14 |

* In millions.

c. Usage of Class Laboratories

The distribution of class laboratory usage among "basic biological science", "clinical science", and "mixed usage" was highly similar to that for classrooms, both on average (54%, 37%, 9%, respectively) and for the various subgroupings of schools. The average class laboratory was used 711 hours per year, a value which disguises the fact that, as seen in Table 3.VIII.10, special purpose class laboratories are used much more heavily, on average, than are general purpose class laboratories.

TABLE 3.VIII.10
CLASS LABORATORY USAGE, SCHOOLS OF
VETERINARY MEDICINE--FALL, 1973

| | MEAN HOURS' USAGE PER YEAR | | ROOM UTILIZATION % | STUDENT STATION UTILIZATION % |
|-------------------|----------------------------|--------------------|--------------------------|----------------------------------|
| | GENERAL PURPOSE | SPECIAL PURPOSE | | |
| TOTAL | 332 | 851 | 34 | 18 |
| Size of School | | | | |
| Large | 256 | 891 | 36 | 20 |
| Medium | 430 | 622 | 25 | 16 |
| Small | 656 | 528 | 34 | 15 |
| Control | | | | |
| Public | 325 | 863 | 34 | 18 |
| Private | 459 | 349 | 29 | 19 |
| Geographic Locale | | | | |
| Innecity | 426 | 353 | 22 | 17 |
| Outercity | 306 | 909 | 35 | 16 |
| Suburban | 331 | 617 | 31 | 28 |
| Rural | 656 | 528 | 34 | 15 |

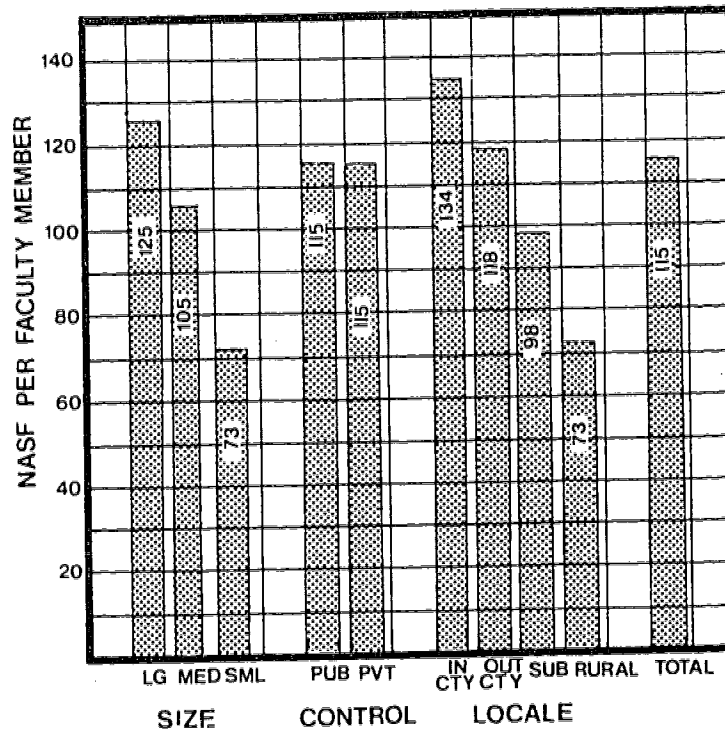
Class laboratory room utilization (34%) was essentially equal to that for classrooms, as an overall average measure, as were the percentages for student station utilization as shown in the above table (compare with Table 3.VIII.8). Separate utilization figures for general versus special purpose class laboratories could not be computed due to limitations in the data imposed by the design of the survey instrument.

d. Faculty Offices

All of the 17 respondents reported their full-time and part-time faculty, with a total of 1,481 FTE faculty reported in all. Comparison of the NASF of faculty office space with the full-time equivalent teaching faculty yields 115 NASF per faculty member. While schools in the public sector reported almost exactly the same NASF per faculty member as did schools in the private sector, strong relationships were exhibited between "size" of school, locale of school, and NASF per faculty member (see Figure 3.VIII.G).

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FIGURE 3.VIII.G
FACULTY OFFICE SPACE AVAILABLE TO FACULTY--FALL, 1973



e. Animal Facilities

The 17 schools of veterinary medicine responding to the relevant questions indicated that nearly 35% of their animal facilities (exclusive of those for animal patient care) were used for instructional purposes and the remainder (65%) were almost exclusively used for research. The largest departure from these figures was exhibited by the private schools which indicated that 50% were for instructional purposes.

f. Joint-Utilization of Classrooms and Class Laboratories

Overall, schools of veterinary medicine made available about 33% of their classrooms, but less than 1% of their class laboratories to students of other disciplines. However, with 50% of the joint-use classrooms reported

by one school, it is reasonable to conclude that very few classrooms or class laboratories are typically made available to other schools by schools of veterinary medicine. This low "sharing" of space with other schools is consistent with the small amount of such space reported to have been available from other sources; and reflects the specialized nature of the instruction received by veterinary medical students.

C. ONGOING CONSTRUCTION AND REMODELING, AND THE POST CONSTRUCTION INVENTORY

1. Extent, Purposes, and Cost

Eleven of the 17 schools of veterinary medicine responding to the survey indicated that, as of the survey date, they were involved in a construction or remodeling program. The reported programs ranged in size up to \$14 million for new construction, and up to \$5 million for a single remodeling program. The vast majority of the 700,000 GSF of new facilities (\$42 million of construction cost) was reported by the public sector (99% of the total). As may be seen in Table 3.VIII.11, the two private schools were incurring 42% of the cost of the ongoing remodeling.

TABLE 3.VIII.11
OVERVIEW OF ONGOING CONSTRUCTION AND REMODELING AT
SCHOOLS OF VETERINARY MEDICINE--FALL, 1973

| | NUMBER OF SCHOOLS WITH CONSTRUCTION OR REMODELING | NEW CONSTRUCTION PROGRAMS | | | REMODELING PROGRAMS | | |
|-------------------|--|---------------------------|--------------|-----------------|---------------------|---------------|-----------------|
| | | NUMBER | GSF (000) | COST (\$000) | NUMBER | NASF (000) | COST (\$000) |
| TOTAL | 11 | 7 | 681 | 42,333 | 6 | 47 | 1,655 |
| Size of School | | | | | | | |
| Large | 6 | 3 | 418 | 25,153 | 3 | 22 | 817 |
| Medium | 4 | 3 | 249 | 16,830 | 2 | 21 | 538 |
| Small | 1 | 1 | 14 | 350 | 1 | 4 | 250 |
| Control | | | | | | | |
| Public | 9 | 6 | 667 | 41,983 | 4 | 32 | 964 |
| Private | 2 | 1 | 14 | 350 | 2 | 15 | 691 |
| Geographic Locale | | | | | | | |
| Innecity | 1 | 0 | 0 | 0 | 1 | 11 | 441 |
| Outercity | 8 | 5 | 591 | 39,230 | 4 | 32 | 964 |
| Suburban | 1 | 1 | 76 | 2,753 | 0 | 0 | 0 |
| Rural | 1 | 1 | 14 | 350 | 1 | 4 | 250 |
| Census Region | | | | | | | |
| Northeast | 1 | 0 | 0 | 0 | 1 | 11 | 441 |
| Northcentral | 5 | 4 | 588 | 39,155 | 1 | 10 | 338 |
| West | 2 | 1 | 76 | 2,753 | 1 | 12 | 104 |

FIGURE 3.VIII.H
VETERINARY MEDICAL SCHOOLS' PURPOSES OF ONGOING CONSTRUCTION AND REMODELING
FALL, 1973

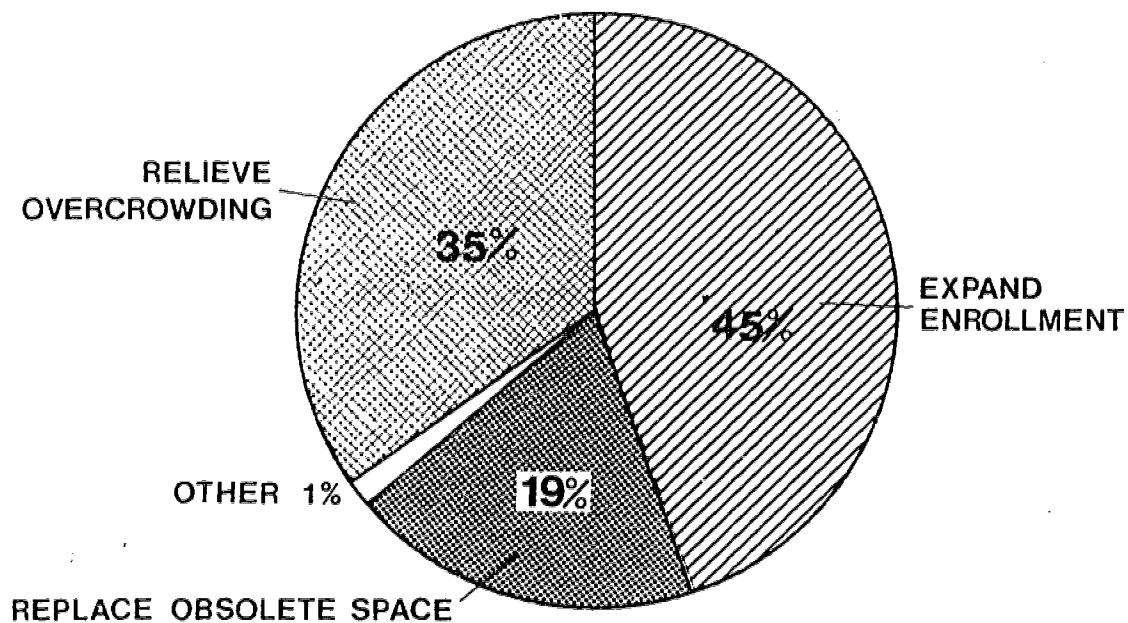
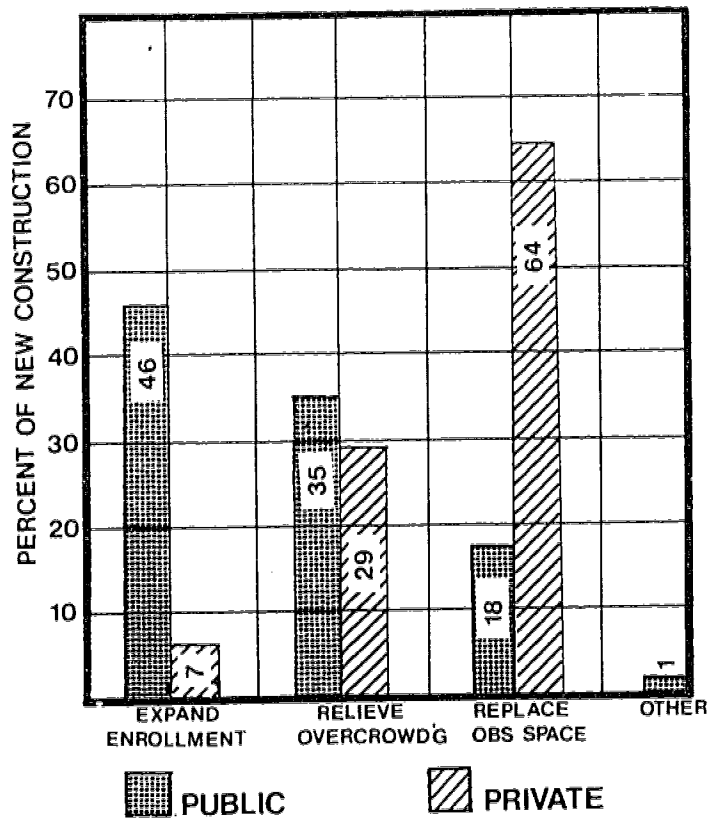


Figure 3.VIII.H Illustrates the purposes of the new construction for all responding schools of veterinary medicine as a group. Dividing the schools by sector, it is found that the construction efforts of the public sector were primarily for enrollment expansion purposes, while replacement of obsolete space was the key purpose for the privately controlled schools (see Figure 3.VIII.I).

FIGURE 3.VIII.1
PURPOSES OF ONGOING CONSTRUCTION IN PUBLIC AND PRIVATE
SCHOOLS OF VETERINARY MEDICINE--FALL, 1973



2. Sources of Funds for Ongoing Construction and Remodeling Programs

State and local funds and HPEA construction grants provided all but three percent of the total funds for the ongoing construction and remodeling programs, with the state and local funding representing three times that of HPEA (72% versus 25%).

3. The Effects of Ongoing Construction and Remodeling

In terms of NASF, the net effect of ongoing construction and remodeling would be to increase the veterinary medical schools' inventory by 275,000 NASF,

bringing their "allocated" nonclinical instruction facilities to 2.16 million. As may be seen in Table 3.VIII.12, the bulk of this growth is to occur in the Northcentral part of the country, primarily at large, publicly controlled schools.

TABLE 3.VIII.12
POST-CONSTRUCTION INVENTORY OF NONCLINICAL INSTRUCTION
FACILITIES, SCHOOLS OF VETERINARY MEDICINE

| | 1973 INVENTORY (000 NASF) | POST- CONSTRUCTION INVENTORY (000 NASF) | CHANGE IN INVENTORY (000 NASF) | % CHANGE |
|-------------------|---------------------------------|--|--------------------------------------|-------------|
| TOTAL | 1,885 | 2,160 | 275 | 14.6 |
| Size of School | | | | |
| Large | 1,164 | 1,346 | 182 | 15.6 |
| Medium | 692 | 784 | 92 | 13.3 |
| Small | 29 | 30 | 1 | 3.4 |
| Control | | | | |
| Public | 1,614 | 1,888 | 274 | 17.0 |
| Private | 271 | 272 | 1 | .4 |
| Geographic Locale | | | | |
| Innecity | 398 | 398 | 0 | 0 |
| Outercity | 1,060 | 1,286 | 226 | 21.3 |
| Suburban | 398 | 446 | 48 | 12.1 |
| Rural | 29 | 30 | 1 | 3.4 |
| Census Region | | | | |
| Northeast | 242 | 242 | 0 | 0 |
| Northcentral | 716 | 928 | 212 | 29.6 |
| South | 523 | 526 | 3 | .6 |
| West | 404 | 464 | 60 | 14.9 |

Over and above the effects of the construction and remodeling programs, 14 of the 17 respondents indicated a need for 930,000 NASF of nonclinical instruction facilities to accommodate the enrollment expected at the time of those programs' completion.

At a minimum, we estimate that 158,000 NASF of this need is for replacement of obsolete facilities. (Exclusive of the effects of the construction programs, nine schools indicated a need for 216,000 NASF for replacement purposes as of

fall, 1973. 18.8 percent of the ongoing construction was reported to be for replacement purposes. Since the NASF to result from the new construction was 310,000, 18.8% of the latter would be 58,000 NASF estimated to be constructed for facilities replacement. 216,000 minus 58,000 yields the estimated minimum replacement need of 158,000 NASF.) Table 3.VIII.13 displays the results of similar computations for the various groupings of schools used in this analysis.

TABLE 3.VIII.13
EFFECTS OF ONGOING CONSTRUCTION UPON FACILITIES REPLACEMENT
NEEDS--SCHOOLS OF VETERINARY MEDICINE

| | NASF* NEED- ING REPLACE- MENT AS OF FALL, 1973 | ESTIMATED NASF* BEING REPLACED | PERCENT OF REPLACEMENT NEED ALLEVIATED | MINIMUM REPLACEMENT NEED, POST- CONSTRUCTION |
|-------------------|---|--------------------------------------|---|---|
| TOTAL | 216 | 58 | 27 | 158 |
| Size of School | | | | |
| Large | 142 | 44 | 31 | 98 |
| Medium | 74 | 12 | 16 | 62 |
| Small | 0 | 3 | -- | -- |
| Control | | | | |
| Public | 216 | 55 | 25 | 161 |
| Private | 0 | 3 | -- | -- |
| Geographic Locale | | | | |
| Innercity | 47 | 0 | 0 | 47 |
| Outercity | 90 | 45 | 50 | 45 |
| Suburban | 79 | 9 | 12 | 70 |
| Rural | 0 | 3 | -- | -- |

* All figures are in thousands.

Table 3.VIII.14 shows the distribution of the 930,000 NASF needed on a room-type basis. As may be seen, overcrowding represents a significant proportion of the need in almost every case.

TABLE 3.VIII.14
NASF NEEDED BY ROOM-TYPE FOLLOWING COMPLETION OF ONGOING CONSTRUCTION
AND REMODELING--SCHOOLS OF VETERINARY MEDICINE

| | NASF (000) AT SCHOOLS REQUIRING ADDITIONAL SPACE* | NASF NEEDED (000) | NASF NEEDED AS % OF INVENTORY | NASF NEEDED TO RELIEVE OVER- CROWDING (000) | OVER- CROWDING NEED AS A % OF TO- TAL NEED |
|------------------------------|---|-------------------------|--|--|--|
| TOTAL | 1,741 | 930 | 53 | 396 | 43 |
| Classroom | 115 | 68 | 59 | 37 | 54 |
| Class Laboratory | 299 | 206 | 69 | 71 | 34 |
| Research & Research Training | 372 | 189 | 51 | 65 | 34 |
| Library | 27 | 46 | 170 | 28 | 61 |
| Auditorium | 1 | 19 | 1,900 | 2 | 11 |
| Faculty Office | 132 | 72 | 55 | 40 | 56 |
| Administrative Areas | 57 | 26 | 46 | 6 | 23 |
| Animal Facilities | 397 | 307 | 77 | 147 | 48 |

* Column's elements do not sum to 1,741 since not all respondents reported the distribution of the post-construction inventory among room-types.

4. The Post Construction Student Population

As mentioned above, and given the inherent assumptions underlying our definition of "post-construction period", we find that the difference between the FTE enrollment as of the survey date and the FTE enrollment "following the completion of ongoing construction and remodeling" is 12 percent, with the respondents' projected aggregate FTE enrollment increasing from 5.9 to 6.7 thousand students. The two schools of the private sector anticipate a 33% growth in enrollment, from 526 to 700 students, while the single "small" school in our survey population envisions a growth factor of 44% upon completion of its ongoing construction efforts (from 153 to 220 FTE students). Table 3.VIII.15 summarizes the inter-relationships between facilities and enrollment growth by presenting the changes in NASF per student expected to occur between the fall of 1973 and the "post-construction period" on a room-type basis.

TABLE 3.V.9
THE BALANCING EFFECT (ON STATIONS PER STUDENT) OF JOINT-USE SPACE

| | CLASSROOMS | | CLASS LABORATORIES | |
|--|------------|---------|--------------------|---------|
| | PUBLIC | PRIVATE | PUBLIC | PRIVATE |
| Student stations* in controlled space | 7,828 | 5,059 | 11,534 | 5,984 |
| Student stations** available in joint-use space | 33,084 | 5,567 | 7,187 | 2,175 |
| (Deduct) Controlled stations used by other schools | 3,940 | 96 | 421 | 182 |
| Total Stations | 36,972 | 10,570 | 18,300 | 7,977 |
| FTE Enrollment | 18,327 | 7,301 | 18,327 | 7,301 |
| Student stations+ per student | 2.0 | 1.5 | 1.0 | 1.1 |

* For those schools reporting students and stations.

** By definition, these stations may be available only one hour per week.

+ Compare with Figure 3.V.C.

b. Usage of Classrooms

Fifty-one percent of respondents' classroom space was primarily devoted to instruction in the basic biological sciences; with 16% of the space devoted to instruction in the clinical sciences, and the remaining 33% of mixed usage. With minor exceptions, these proportions tend to hold regardless of the grouping of respondents.

The average classroom was used 655 hours out of the academic year. Small schools, at 511 hours, were substantially below the average. When the schools are grouped by control, public schools are slightly above the mean, while private schools are somewhat below it. We note also that grouping of the schools by "curriculum type" seems to show that the existence of a clinical teaching component has almost no impact on the usage of classrooms.

Table 3.V.10 arrays mean and total usage against total room availability, with the room utilization percentage, computed as described in Appendix G,

displayed in the final column. As was noted in PART 1, the latter figures should be treated with caution--and their relative rather than absolute magnitudes studied. In brief, "utilization" is herein taken to imply the percentage ratio of:

$$\frac{\text{resource hours used}}{\text{resource hours available}},$$

whether the resource be rooms or student stations. Resource hours available" should theoretically be computed as "length of academic year (in hours)" times "number of rooms or student stations available for use." For comparability among the schools, we have substituted 2,080 hours for the reported "length of academic year". Since 2,080 is typically larger than the reported length, the computed utilization percentages are, on average, depressed to some degree.

TABLE 3.V.10
USAGE OF CLASSROOMS, SCHOOLS OF PHARMACY--FALL, 1973

| | NUMBER OF SCHOOLS | MEAN HOURS PER ROOM PER YEAR | TOTAL* HOURS OF USAGE (000) | TOTAL** HOURS AVAILABLE (000) | COMPUTED UTILIZATION % |
|-------------------|-------------------------|------------------------------------|--------------------------------------|--|------------------------------|
| TOTAL | 46 | 655 | 134 | 456 | 32 |
| Size of School | | | | | |
| Large | 13 | 679 | 54 | 181 | 31 |
| Medium | 21 | 690 | 61 | 193 | 35 |
| Small | 12 | 511 | 18 | 81 | 26 |
| Control | | | | | |
| Public | 34 | 687 | 89 | 287 | 34 |
| Private | 12 | 598 | 45 | 168 | 27 |
| Geographic Locale | | | | | |
| Innercity | 16 | 618 | 38 | 144 | 28 |
| Outercity | 24 | 663 | 78 | 258 | 33 |
| Suburban | 3 | 434 | 5 | 23 | 21 |
| Rural | 3 | 896 | 13 | 31 | 44 |
| Curriculum Type | | | | | |
| Classical | 18 | 690 | 54 | 179 | 31 |
| Revised | 28 | 633 | 80 | 277 | 32 |

* Over all rooms, both allocated and joint-use.

** Number of rooms at all schools x 2,080.

Room utilization computations, performed for those 46 schools for whom data were complete, averaged 32% for classrooms as seen in column 8 of the above table. This figure is seen to be primarily a function of usage in the public sector, since public schools, as a group, reported 34% in contrast to the 27% exhibited by privately controlled schools. Although not well reflected by the "average hours per room per year" figures previously noted, it is found that the percentage of room utilization ranges from 21% to 44% as a function of locale of school.

In view of the fact that joint-usage of facilities plays a major role in the operation of many pharmacy schools, Table 3.V.11 displays the reported joint-usage "in both directions". As may be seen, pharmacy schools represent a much larger loading on facilities not controlled by them than do the students of other professions upon pharmacy-controlled facilities.

TABLE 3.V.11
JOINT-USAGE OF PHARMACY SCHOOLS' CLASSROOMS

| | ROOM HOURS "BORROWED" BY PHARMACY SCHOOLS (1) | "CONTROLLED" ROOM HOURS "LENT" BY PHARMACY SCHOOLS (2) | NET (1) - (2) (3) | "CONTROLLED" ROOM HOURS USED BY PHARMACY (4) | RATIO (1)/(4) (5) |
|----------------|---|---|-------------------------|--|-------------------------|
| TOTAL | 86,599 | 9,668 | 76,931 | 134,192 | .64 |
| Size of School | | | | | |
| Large | 28,990 | 1,236 | 27,754 | 54,336 | .53 |
| Medium | 42,829 | 6,014 | 36,815 | 61,457 | .70 |
| Small | 14,780 | 2,418 | 12,362 | 18,399 | .80 |
| Control | | | | | |
| Public | 76,897 | 9,476 | 67,421 | 89,372 | .86 |
| Private | 9,702 | 192 | 9,510 | 44,820 | .22 |

The ratio of joint-use to "controlled" hours is quite large in all groupings analyzed. As might be predicted, the multi-school setting typically associated with the public university campus contributes to a 4-to-1 joint-usage differential between publicly and privately controlled schools (see column 5 in Table 3.V.11).

Classroom student station utilization figures averaged 31% for the 60 schools for whom station utilization rates (occupancy rates) could be computed using the method detailed in Appendix G. On a 2,080 hour base, the average station was occupied anywhere from 6% to 129% of the time. Again, schools in the public sector showed only a marginally greater aggregate utilization percentage than those in the private sector (32% versus 30%), and the two values may be considered equal. Table 3.V.12 displays these percentages, and the "raw material" involved in their computation.

TABLE 3.V.12
PHARMACY SCHOOLS' CLASSROOM STUDENT STATION UTILIZATION--FALL, 1973

| | STUDENT HOURS* SPENT IN ANY CLASSROOM (1) | STATION- HOURS* UTILIZED IN NON- CONTROLLED CLASSROOMS (2) | CONTROLLED STATION- HOURS* AVAILABLE (3) | CONTROLLED STATION- HOURS* USED BY NON-PHAR- MACY (4) | $\frac{(1)+(4)}{(2)+(3)} \times 100$ = % STATION UTILIZATION (5) |
|-------------------|--|--|--|---|---|
| TOTAL | 10.4 | 8.6 | 26.5 | .6 | 31 |
| Size of School | | | | | |
| Large | 4.9 | 2.4 | 12.2 | .1 | 34 |
| Medium | 4.3 | 5.1 | 12.3 | .3 | 29 |
| Small | 1.2 | 1.1 | 3.3 | .1 | 27 |
| Control | | | | | |
| Public | 6.9 | 7.6 | 17.8 | .6 | 32 |
| Private | 3.4 | 1.0 | 8.1 | .0 | 30 |
| Geographic Locale | | | | | |
| Innecity | 4.3 | 3.8 | 10.0 | .1 | 35 |
| Outercity | 5.0 | 3.6 | 13.0 | .4 | 29 |
| Suburban | .4 | .7 | 1.3 | .0 | 21 |
| Rural | .7 | .5 | 1.6 | .0 | 34 |
| Curriculum Type | | | | | |
| Classical | 5.1 | 2.9 | 10.6 | .1 | 36 |
| Revised | 5.3 | 5.7 | 15.4 | .5 | 28 |

* In millions.

c. Class Laboratory Utilization

Pharmacy-controlled class laboratories were used 526 hours per year on the average, with special-purpose class laboratories typically used fewer hours per year than general purpose labs (431 versus 559). In parallel with Table 3.V.10, Table 3.V.13 outlines class laboratory usage (with general and special purpose labs combined due to data constraints).

TABLE 3.V.13
USAGE OF CLASS LABORATORIES, SCHOOLS OF PHARMACY--FALL, 1973

| | NUMBER OF SCHOOLS | MEAN HOURS PER ROOM PER YEAR | TOTAL* HOURS OF USAGE (000) | TOTAL** HOURS AVAILABLE (000) | COMPUTED UTILIZATION % |
|-------------------|-------------------------|------------------------------------|--------------------------------------|--|------------------------------|
| TOTAL | 46 | 526 | 249 | 988 | 25 |
| Size of School | | | | | |
| Large | 13 | 512 | 104 | 424 | 25 |
| Medium | 21 | 598 | 99 | 343 | 29 |
| Small | 12 | 440 | 47 | 220 | 21 |
| Control | | | | | |
| Public | 34 | 498 | 173 | 670 | 24 |
| Private | 12 | 587 | 88 | 318 | 28 |
| Geographic Locale | | | | | |
| Innecity | 16 | 599 | 90 | 320 | 28 |
| Outercity | 24 | 461 | 118 | 526 | 23 |
| Suburban | 3 | 406 | 17 | 85 | 20 |
| Rural | 3 | 916 | 25 | 56 | 44 |
| Curriculum Type | | | | | |
| Classical | 18 | 519 | 121 | 489 | 25 |
| Revised | 28 | 533 | 128 | 499 | 26 |

* Over all rooms, both allocated and joint-use.

** Number of rooms at all schools x 2,080.

As may be seen in the above table, mean usage tended to parallel that for classrooms, except that in the current instance, the private schools have a higher mean usage than those of the public sector.

Joint-usage of class laboratories was five times less than it was for classrooms, although the joint-usage reported was still substantial (see Table 3.V.14, and compare with Table 3.V.11).

TABLE 3.V.14
JOINT-USAGE OF PHARMACY SCHOOLS' CLASS LABORATORIES--FALL, 1973

| | ROOM HOURS "BORROWED" BY PHARMACY SCHOOLS (1) | "CONTROLLED" ROOM HOURS "LENT" BY PHARMACY SCHOOLS (2) | NET (1) - (2) (3) | "CONTROLLED" ROOM HOURS USED BY PHARMACY (4) | RATIO (1)/(4) (5) |
|----------------|---|---|-------------------------|--|-------------------------|
| TOTAL | 31,464 | 2,133 | 29,331 | 249,387 | .13 |
| Size of School | | | | | |
| Large | 10,599 | 67 | 10,532 | 104,013 | .10 |
| Medium | 16,926 | 1,696 | 15,230 | 98,746 | .17 |
| Small | 3,939 | 370 | 3,569 | 46,628 | .08 |
| Control | | | | | |
| Public | 23,961 | 967 | 22,994 | 173,312 | .14 |
| Private | 7,503 | 1,166 | 6,337 | 88,075 | .09 |

Student station utilization in class laboratories ranged between 4% and 125%, for individual schools, using the computational approach described in Appendix H. Schools of the public sector exhibited a higher utilization percentage than privately controlled schools (17% versus 12%); a fact notable because public schools' joint usage was greater than that of their private counterparts. That is, from Table 3.V.14 may be seen that (in column 5) the ratio of "borrowed" to "allocated" or "controlled" room hours is .14 (14%) versus .09. Since this figure is an addition to the denominator of the utilization formula, it tends, as a correction factor, to depress the public schools' utilization ratio more than it depresses that for the private schools.

Table 3.V.15 contains the station utilization averages for various groupings of pharmacy schools. They are, in general, much lower than the corresponding classroom percentages, even though the "mean hours of usage per year" for classrooms and laboratories differ by less than 25%.

TABLE 3.V.15
PHARMACY SCHOOLS' CLASS LABORATORY STUDENT STATION UTILIZATION--FALL, 1973

| | STUDENT HOURS* SPENT IN ANY CLASSLAB | CONTROLLED* STATION-HOURS AVAILABLE | % STATION UTILIZATION |
|-------------------|--|---|--------------------------|
| TOTAL | 5.5 | 34.4 | 16 |
| Size of School | | | |
| Large | 2.4 | 14.5 | 16 |
| Medium | 2.5 | 13.5 | 18 |
| Small | .7 | 6.4 | 11 |
| Control | | | |
| Public | 4.1 | 22.6 | 17 |
| Private | 1.4 | 11.9 | 12 |
| Geographic Locale | | | |
| Innecity | 2.1 | 12.9 | 16 |
| Outercity | 2.7 | 18.0 | 15 |
| Suburban | .2 | 1.8 | 12 |
| Rural | .4 | 1.9 | 23 |
| Curriculum Type | | | |
| Classical | 2.5 | 14.8 | 16 |
| Revised | 3.0 | 19.7 | 15 |

* In millions.

d. Faculty Offices

Faculty office space per full-time-equivalent teaching faculty member was reported to vary from 43 to 270 NASF on a school-by-school basis, with a mean of 123. Public and private schools reported approximately equal averages, notwithstanding the issue of joint-use space availability (see Table 3.V.16).

TABLE 3.V.16

PHARMACY SCHOOLS' FACULTY OFFICE SPACE PER FTE FACULTY MEMBER--FALL, 1973

| | NUMBER OF SCHOOLS REPORTING FACULTY | NASF OF OFFICE SPACE (000) | NUMBER OF FTE FACULTY | NASF PER FACULTY |
|-------------------|--|-------------------------------------|-----------------------------|---------------------|
| TOTAL | 63 | 202 | 1,647 | 123 |
| Size of School | | | | |
| Large | 17 | 77 | 555 | 139 |
| Medium | 31 | 93 | 861 | 108 |
| Small | 15 | 32 | 231 | 139 |
| Control | | | | |
| Public | 47 | 155 | 1,278 | 121 |
| Private | 16 | 47 | 369 | 127 |
| Geographic Locale | | | | |
| Innecity | 25 | 68 | 681 | 100 |
| Outercity | 32 | 118 | 824 | 143 |
| Suburban | 3 | 9 | 64 | 141 |
| Rural | 3 | 7 | 78 | 90 |

C. ONGOING CONSTRUCTION AND REMODELING, AND THE POST-CONSTRUCTION INVENTORY OF NONCLINICAL INSTRUCTION FACILITIES

1. Extent, Purposes, and Cost

As of the survey date, seventeen schools of pharmacy indicated their involvement in a construction or remodeling program. Ranging in size up to \$7.6 million for a single school, these programs represent the construction of some .57 million GSF of new facilities. Two thirds of the reported construction costs and five sixths of the remodeling costs were being incurred by schools in the public sector.

TABLE 3.V.17
OVERVIEW OF ONGOING CONSTRUCTION AND REMODELING AT PHARMACY SCHOOLS--FALL, 1973

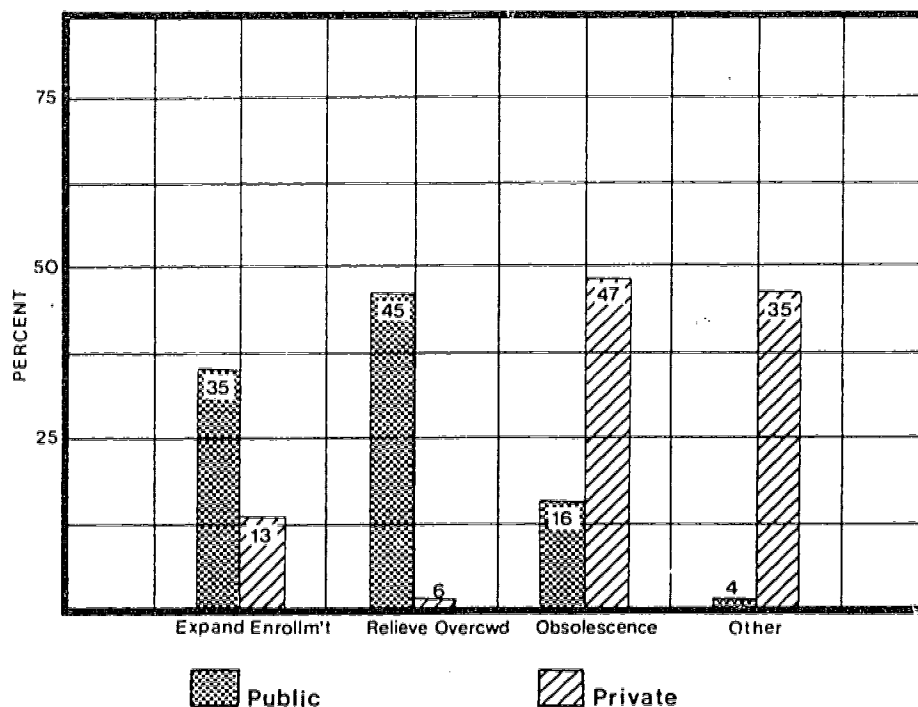
| | NEW CONSTRUCTION | | | | REMODELING | | |
|-------------------|-------------------|-----------|--------------|----------------------|-------------------|------------|--------------|
| | NUMBER OF SCHOOLS | GSF (000) | COST (\$000) | AVERAGE COST PER GSF | NUMBER OF SCHOOLS | NASF (000) | COST (\$000) |
| TOTAL | 17 | 569 | 22,492* | 40* | 11 | 44 | 580 |
| Size of School | | | | | | | |
| Large | 4 | 0 | -- | -- | 4 | 14 | 132 |
| Medium | 7 | 310 | 16,611 | 54 | 4 | 18 | 391 |
| Small | 6 | 259 | 5,881 | 23 | 3 | 12 | 57 |
| Control | | | | | | | |
| Public | 13 | 425 | 13,790 | 32 | 9 | 39 | 485 |
| Private | 4 | 144 | 8,702 | 60 | 2 | 5 | 95 |
| Geographic Locale | | | | | | | |
| Innecity | 7 | 318 | 18,457 | 58 | 4 | 24 | 223 |
| Outercity | 7 | 171 | 35* | * | 5 | 16 | 162 |
| Suburban | 1 | 0 | -- | -- | 1 | 1 | 15 |
| Rural | 2 | 80 | 4,000 | 50 | 1 | 3 | 180 |

* A number of respondents omitted the cost of their ongoing new construction programs. These figures are, thus, spuriously low, and all "dollars per GSF" figures should be treated with extreme caution.

Those eight schools reporting an ongoing construction program indicated that 29% of the new space was being built for the purposes of enrollment expansion; 35% was being constructed for the relief of overcrowding; and one of every four

new GSF were being built for the replacement of obsolete space. Grouping the respondents into the kinds of categories utilized in previous analysis, and recognizing the small sample sizes which result, we find diametrically opposed purposes of new construction in the public and private sectors. As seen in the figure, obsolescence was the key purpose of construction for the private schools, while the publicly controlled schools cited enrollment expansion and overcrowding relief.

FIGURE 3.V.D
PHARMACY SCHOOLS' PURPOSES OF ONGOING CONSTRUCTION

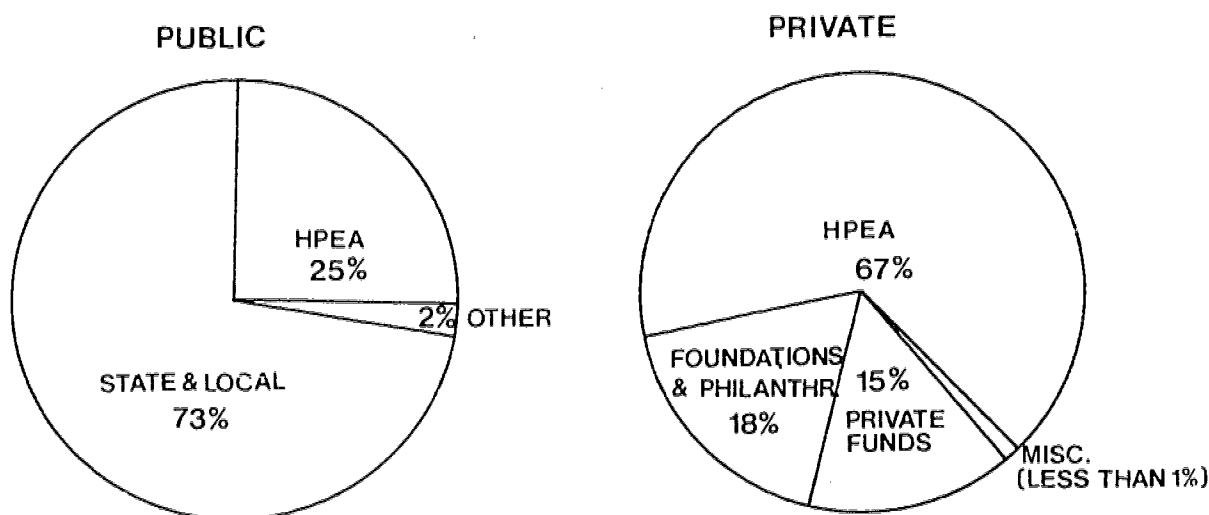


Differences in purpose of the ongoing construction programs are also a function of school size. With the large schools reporting no construction at all, the medium-sized schools estimated that over 40% of the construction was for replacing obsolete space; while only a small portion of the smaller schools' construction was for these purposes, but was focused more upon overcrowding relief.

2. Sources of Funds for Ongoing Construction and Remodeling Programs

Of the 23.1 million dollars reported by respondents as "fully authorized" for ongoing construction and remodeling efforts (a spuriously low total due to an occasional failure to report the costs of ongoing construction) over 40% was contributed by state and local sources (all of it to schools in the public sector), with HPEA construction grants accounting for another 41% of the total. While the majority (62%) of the HPEA grants were to publicly controlled schools, these grants represented the majority of the private schools' funding (see Figure 3.V.E).

FIGURE 3.V.E
SOURCES OF FUNDS FOR ONGOING CONSTRUCTION



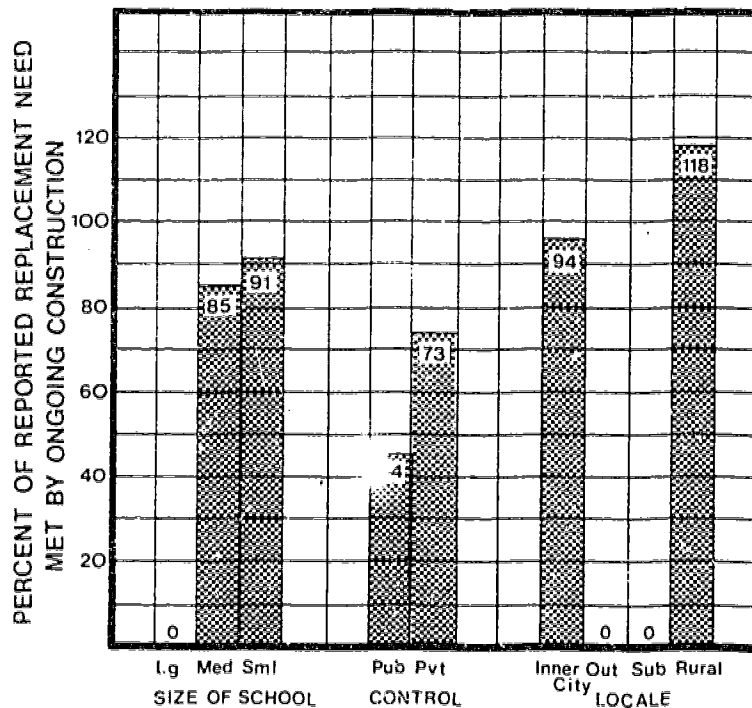
3. The Effects of Ongoing Construction and Remodeling

The net effect of ongoing construction and remodeling would be to increase the pharmacy schools' inventory of nonclinical instruction facilities to 2.2 million NASF. Since facilities replacement appeared to be one of the primary purposes in a number of instances of the ongoing construction, it is worthwhile to estimate the NASF of new construction for replacement purposes. We do

this by multiplying respondents' reported percentage of the GSF (under construction) for replacement purposes by the NASF of new construction. We now compare this figure with that perceived as needing replacement as of the survey date to see where the needs for replacement are or are not being fulfilled.

In all, 140,000 NASF of the fall, 1973 inventory were indicated as "needing replacement": using the computational approach described above, we obtain an estimated NASF (being replaced) of 80,000 NASF, 56% of the need. This percentage is highly variable as a function of control and locale, and, with the exception of large schools, is constant for the "size of school" categorization (see Figure 3.V.F).

FIGURE 3.V.F
THE EFFECT OF ONGOING CONSTRUCTION ON
THE PHARMACY SCHOOLS' PERCEIVED REPLACEMENT NEEDS AS OF FALL, 1973

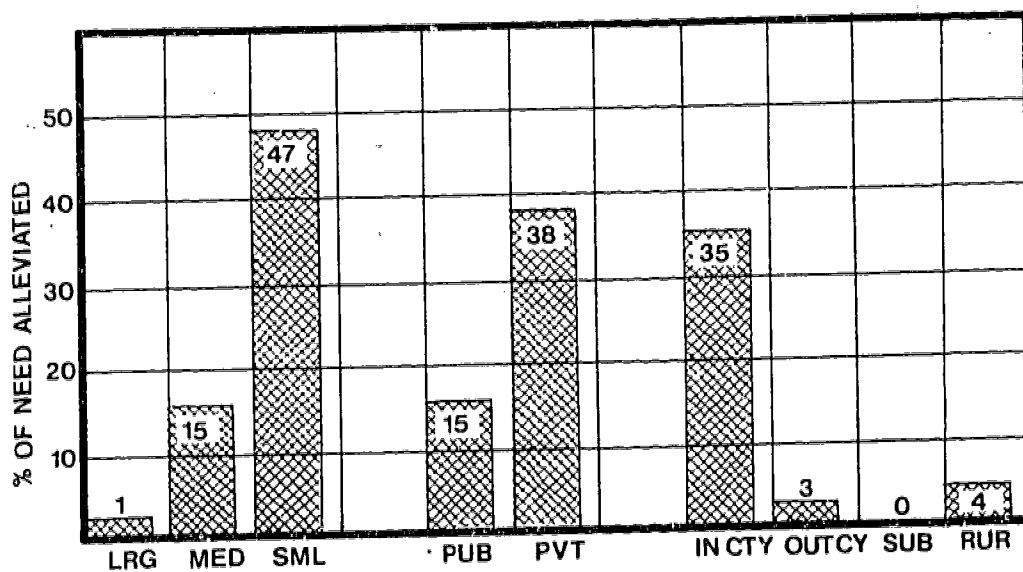


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It has been stated that the "desired" space distribution profile was different only in minor respects from that which existed in the fall of 1973. When the ongoing construction is apportioned by type of space, it is apparent that it will engender little change in the space distribution profile as the construction itself approximates the profile. For the respondent schools of pharmacy as a whole, then, the effect of the construction will be to increase the amount of space of each type in proportion to its representation in the fall, 1973 inventory, rather than to change the size relationships between one room type and another.

Overall, these programs will add under 1 Net Assignable Square Foot per student. It is thus not surprising to find that the need for additional facilities, as perceived in the fall of 1973, has only been alleviated by 18% through ongoing construction and remodeling efforts. On the other hand, the alleviated need (the difference between the needs perceived as of the survey date and those projected as of the completion of ongoing construction and remodeling programs) fluctuates with size, control, and locale of school (see Figure 3.V.G).

FIGURE 3.V.G
OVERALL NEED ALLEVIATED BY ONGOING CONSTRUCTION



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While it has been noted that the NASF per student figures change only slightly as a result of ongoing construction programs, it is also true that the enrollment figures used in the denominator of the computations are based on the respondents' projected enrollment following completion of these efforts. We must, therefore, consider the fluctuation in the enrollment figures themselves.

4. The Post-Construction Student Population

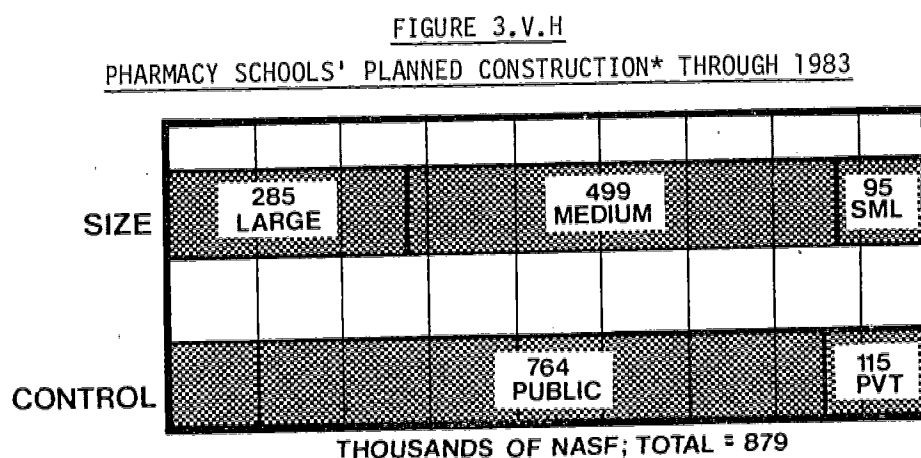
With the admittedly strong assumptions underlying our definition of "post-construction period" in mind, we find that the increase between the FTE enrollment as of the survey date and the FTE enrollment "following the completion of ongoing construction and remodeling" is just under 6%, with the respondents' projected aggregate enrollment increasing to 27,100 students. As is apparent in Table 3.V.18, the most vigorous growth rate is exhibited by the "small" schools; while the public and private schools indicate equal enrollment growth. In most cases, the percentage expansion in facilities outstrips the percentage growth in enrollment -- thereby relieving to some degree, the overcrowding problem perceived as of the survey date.

TABLE 3.V.18
COMPARISON OF PROJECTED ENROLLMENT AND FACILITIES GROWTH RATES

| | NASF (000) FALL, 1973 | NASF (000) "POST- CONSTRUC- TION" | % CHANGE IN NASF | FTE EN- ROLLMENT FALL, 1973 | FTE EN- ROLLMENT POST-CON- STRUCTION | % CHANGE IN EN- ROLLMENT |
|-------------------|--------------------------------|---|---------------------------|--------------------------------------|---|-----------------------------------|
| TOTAL | 2,016 | 2,177 | 8 | 25,628 | 27,144 | 6 |
| Size of School | | | | | | |
| Large | 818 | 772 | -6 | 11,346 | 11,772 | 4 |
| Medium | 892 | 1,011 | 13 | 11,340 | 12,099 | 7 |
| Small | 306 | 394 | 29 | 2,942 | 3,273 | 11 |
| Control | | | | | | |
| Public | 1,502 | 1,615 | 8 | 18,327 | 19,402 | 6 |
| Private | 514 | 562 | 9 | 7,301 | 7,742 | 6 |
| Geographic Locale | | | | | | |
| Innercity | 714 | 790 | 11 | 9,048 | 9,845 | 9 |
| Outercity | 1,112 | 1,173 | 5 | 14,133 | 14,544 | 3 |
| Suburban | 103 | 104 | 1 | 1,221 | 1,311 | 7 |
| Rural | 87 | 110 | 26 | 1,226 | 1,444 | 18 |

D. THE 1983 LOOK AHEAD

Twenty-three pharmacy schools indicated plans for the construction of 879,000 NASF of facilities during the period between the completion of their ongoing construction and remodeling programs and the fall of 1983. As might be anticipated based on previous discussion of "medium-sized schools" and schools of the public sector, the bulk of this new construction was reported by these two overlapping groups (see Figure 3.V.H).

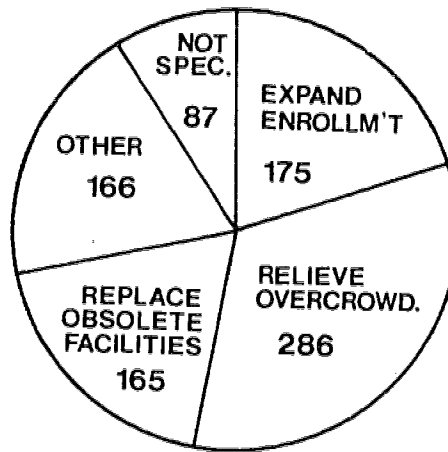


* Includes "on-site patient care" and "other" facilities.

Although planned remodeling was reported to a much lesser extent (170,000 NASF), all of it was reported by 12 publicly controlled schools; and 73% of it was reported by the schools of "medium" size.

As can be seen in Figure 3.V.I, the purposes of the construction planned by respondents through academic year 1983 were nearly equivalent, in percentage terms, over three of the four "purposes" defined by the instrument. Overcrowding relief was the lone exception. On a school-size by school-size basis, the percentage of new construction for enrollment expansion is nearly doubled for each successively decreasing size category: large schools indicated 11%, while medium and small schools indicated 22% and 38%, respectively.

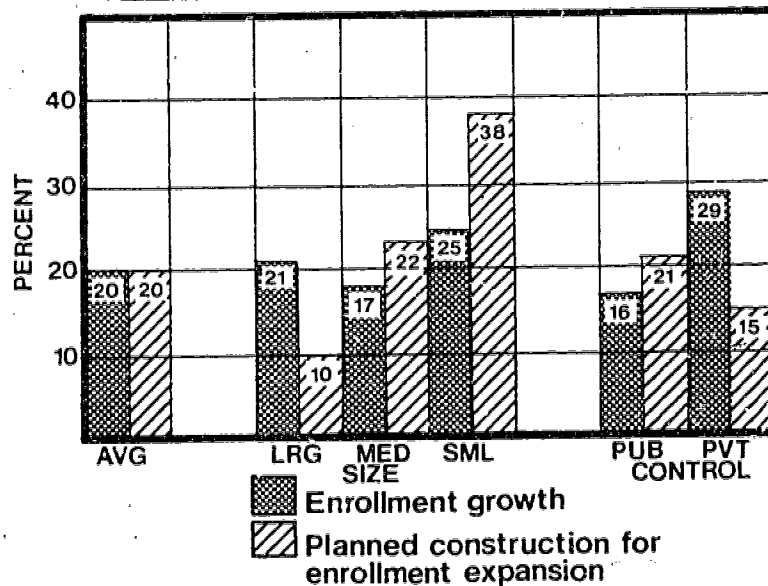
FIGURE 3.V.I
PLANNED PURPOSES OF CONSTRUCTION OF
NONCLINICAL INSTRUCTION FACILITIES* THROUGH 1983



* In thousands of NASF.

The very strong pattern of percentages of ongoing construction for expansion of enrollment among the various school size categories does not match the reported projections of increase in enrollment through 1983. In fact, a number of mismatches appear in an overlay (see Figure 3.V.J) of enrollment growth versus new construction for enrollment expansion purposes. In view of the overcrowding problem already becoming apparent to respondents, these mismatches between apparent needs and projected construction purposes are liable to engender a realignment of plans in the coming decade, given that the enrollment increases are to become a reality.

FIGURE 3.V.J
COMPARISON OF ENROLLMENT GROWTH AND FACILITIES TO BE
BUILT FOR ENROLLMENT EXPANSION THROUGH 1983



The "mismatches" referenced above are most obvious for large schools, and for schools in the private sector. Table 3.V.19 displays, for these and other groups, the changes in NASF per student expected to occur between fall, 1973 and academic year 1983.

TABLE 3.I.19
CHANGES IN NASF PER STUDENT, SCHOOLS
OF PHARMACY, 1973-1983

| | NASF PER STUDENT-- FALL, 1973 | NASF PER STUDENT-- POST-CONSTRUCTION | NASF PER STUDENT-- 1983 |
|----------------|----------------------------------|---|----------------------------|
| TOTAL | 86 | 89 | 94 |
| Size of School | | | |
| Large | 83 | 80 | 73 |
| Medium | 82 | 88 | 106 |
| Small | 108 | 121 | 125 |
| Control | | | |
| Public | 87 | 90 | 105 |
| Private | 83 | 86 | 69 |

E. INVENTORY OF INSTRUCTIONAL RESOURCES IN CLINICAL FACILITIES--FALL, 1973

1. Description

The 240,000 NASF of nonclinical instruction facilities found in pharmacy schools' major clinical affiliates represent nearly a 12% addition to the similar facilities controlled by those schools. Of the 66 hospitals and clinics reported, 45 made such facilities available for academic purposes, while 44 were used for training relating to ambulatory care and all were reported as used with relation to inpatient care. Recognizing that the typical pharmacy curriculum does not "utilize" inpatients and outpatients with the degree of intensity of, e.g., a medical school curriculum, the advent of the health-care team concept (including a pharmacist) and, less directly, training in a hospital pharmacy implies that the size (number of beds in a hospital) is becoming an increasingly germane measure of teaching resources in the pharmacy context.

Along these lines, pharmacy schools reported that, as major components in their education program, clinical affiliates represented 16,700 beds with an ADPL of 14,200. With regard to ambulatory care facilities, an aggregate of over 900,000 outpatient visits per year were reported -- which may, to a large extent, represent reporting of prescriptions filled. "Prescriptions filled" is, however, not the sole measure of outpatient training: respondents indicated that nearly 550 examining and treatment rooms -- 675 ambulatory patient stations in all -- were available for pharmacy students' use. Most of these resources were used by those schools of pharmacy considered by the researchers to have offered a "revised" curriculum (and most of the latter schools were publicly controlled).

With regard to the "nonclinical instruction facilities" in these clinical areas, it appears that they basically offered classroom, laboratory, library, and auditorium space (about 20% of the total for each type) with very minor percentages of the other room types reported. As would be anticipated from the above discussion, nearly 90% of these facilities were used by those schools offering "revised" curricula.

Adequacy of Nonclinical Instruction Facilities in Clinical Areas

a. Condition

Respondents reported that approximately 68% (166,000 NASF) of the current inventory of nonclinical facilities in clinical settings were "satisfactory for program purposes". Of the unsatisfactory space, well over half (56%) needed remodeling; while the remainder, some 20,000 NASF, required replacement. The percentage of satisfactory space was lowest in the public schools (66%) and the innercity locales (59%).

b. Instructional Facilities Needed in Clinical Settings

68,000 NASF of nonclinical instruction facilities were available at those 26 clinical associates reporting a need for additional space. An additional 80,000 NASF were perceived as needed, 38,000 of which were reported to be for relief of overcrowding. Twenty-five of the clinics representing 95% of the need, were reported by publicly controlled schools.

As we analyze each of the room types delineated by the survey instrument, we find that, for the 26 clinics in question, respondents wished to more than double the available square footage of administrative offices, and to increase by many times, the available research and research training space, and faculty offices (see Table 3.V.20). While the numbers of NASF involved were not large for any given room-type, the large factor by which these pharmacy schools desired to expand the facilities gives insight into the degree to which the needs were felt.

TABLE 3.V.20
PHARMACY SCHOOLS' PERCEIVED NEEDS FOR INSTRUCTIONAL FACILITIES
IN CLINICAL AREAS

| | NASF* AVAILABLE AT CLINICS RE- PORTING A NEED | NASF* NEEDED | NASF NEEDED AS A % OF NASF AVAILABLE |
|------------------------------|---|--------------|--|
| Classrooms | 14 | 18 | 129 |
| Class Laboratories | 22 | 19 | 86 |
| Research & Research Training | 2 | 18 | 900 |
| Library | 12 | 5 | 42 |
| Auditorium | 8 | 5 | 62 |
| Faculty Offices | 1 | 13 | 1,300 |
| Administrative Areas | 2 | 5 | 250 |
| Animal Facilities | 0 | 1 | -- |
| TOTAL | 68** | 80** | 118 |

* In thousands.

** Column sums are imprecise due to aggregation of a large number of round-off errors over the many hospitals involved in each detail line.

F. ONGOING AND FUTURE CONSTRUCTION AND REMODELING, AND THEIR EFFECT ON THE INVENTORY OF NONCLINICAL INSTRUCTION FACILITIES

1. Extent of Ongoing Construction

Seven of the 66 hospitals and clinics associated with the respondent pharmacy schools indicated that, as of the survey date, they were involved in new construction and remodeling whose total cost, approximately \$120 million, was being incurred by the public sector. (A GSF figure is not given here since \$90 of the \$120 million in construction costs were reported without corresponding GSF figures.) Nearly half this effort (for the 170,000 GSF of new construction which were reported) was for replacement of obsolete facilities, and none was for enrollment expansion. Eighty-nine percent of the funds were supplied by state and local sources, with 10% obtained through borrowing.

2. Effects of Ongoing Construction

The net effect, *vis-a-vis* schools of pharmacy, of ongoing construction and remodeling in hospitals and clinics will be to add 160,000 NASF of nonclinical instruction facilities to the inventory that existed as of fall, 1973--an increase of 65%. On a percentage basis, this increase to 400,000 NASF will most impact the hospitals and clinics used by "large" schools, for whom it represents a factor-of-three (319%) addition to the 16,000 NASF reported for 1973. "Small" schools will also be significantly impacted, with the addition of 84,000 NASF (142% of the original inventory).

Hospitals and clinics associated with pharmacy schools in the public sector anticipate adding 71% as much space through ongoing construction programs as existed prior to these programs' initiation. The 224,000 NASF "post-construction inventory" of nonclinical instruction facilities in clinical areas is expected to rise to 382,000 NASF.

3. The 1983 Look Ahead

Since for the "1983 look-ahead", the instructions did not distinguish between patient-care areas and non-clinical instruction facilities in clinical areas,

the projected 1983 inventory of 810,000 NASF is not strictly comparable with the 400,000 NASF reported for the "post-construction period". Assuming, however, that the estimates of various amounts of construction for each construction purpose apply to both patient-care and non-patient-care facilities, it is of interest to assess the planned activity in light of these purposes.

In the aggregate, the respective percentages (of planned construction) to be applied to the various purposes outlined by the survey instrument tend to follow the pattern evidenced by construction in progress as of the survey date. Almost none of the construction is marked for enrollment expansion, while the largest portion (66%) will again be for replacement of obsolete facilities. This latter figure, it should be noted, is influenced by the one very large replacement program (333,000 NASF) reported by the private sector, with the six programs in the public sector averaging 48% for replacement purposes. In sum, then, major clinical facilities construction efforts in support of pharmacy school programs will continue to upgrade rather than expand, the available nonclinical and clinical teaching facilities.

VI. SCHOOLS OF PODIATRIC MEDICINE

A. INTRODUCTION

Podiatry schools resemble schools of medicine and dentistry to the extent that their basic science training takes place primarily in the first two years of a four year education program. The following two years (the "clinical years") relate (in the sense of facilities) to the use of examining and treatment rooms and, to a lesser extent, to prosthesis and bio-mechanics laboratories. It is thus to be expected that in the aggregate, the schools of podiatric medicine will be seen to be heavily classroom and class laboratory instruction oriented; with a nearly equivalent concentration on examining and treatment rooms and (to a much lesser degree) inpatient care areas. Since, however, these schools are not heavily research oriented, it is also to be expected that the amount of research and research training space will be much less significant (as a percentage of the total facilities configuration) than for schools such as medicine and dentistry with the net result that the classroom and class laboratory instructional facilities will represent a far greater proportion of the available facilities than in the latter two professions--even though the intensity and nature of the training are similar.

Even though all 5 of the nation's schools of podiatric medicine responded with substantially completed survey instruments, their limited number reduces our ability to discuss them in the analytical manner desired. Rather, that which follows will be more expository in nature. Table 3.VI.1 describes the response rate in terms of the grouping parameters used in the discussion to follow. Size categories were assigned by choosing 0-250 Full-Time Equivalent students (FTE) to represent "small schools", 251-350 FTE's as "medium", and above 350 as "large".

TABLE 3.VI.1
THE UNIVERSE OF SCHOOLS OF PODIATRY

| SCHOOLS OF: PODIATRY | NUMBER OF SCHOOLS IN UNIVERSE | NON-RESPONDENT | | | RESPON- DENTS (NO. 1 - NO.2) | NEW SCHOOLS RESPON- DING | ESTAB- LISHED RESPON- DENTS (#3-#4) | NON-SUB- STANTIVE FORMS ESTAB. SCHOOLS | RE- SPONSES USED IN ANALYSIS (#5-#6) | ANALYZED SCHOOLS AS A % OF ESTAB- LISHED UNIVERSE (7/(1-2a-4)) |
|-------------------------|---|----------------|-----------------------------|------------------------|---------------------------------------|-----------------------------------|---|--|--|--|
| | | NEW SCHOOLS | ESTAB- LISHED SCHOOLS | TOTAL (#2a+ #2b) | | | | | | |
| | #1 | #2a | #2b | #2c | #3 | #4 | #5 | #6 | #7 | #8 |
| TOTAL | 5 | 0 | 0 | 0 | 5 | 0 | 5 | 0 | 5 | 100 |
| Large | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 100 |
| Medium | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 100 |
| Small | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 100 |
| Public | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Private | 5 | 0 | 0 | 0 | 5 | 0 | 5 | 0 | 5 | 100 |
| Innercity | 4 | 0 | 0 | 0 | 4 | 0 | 4 | 0 | 4 | 100 |
| Outercity | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 100 |
| Suburban | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| Rural | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | |
| Northeast | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 100 |
| Northcentral | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 100 |
| South | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| West | 1 | 0 | 0 | 0 | 1 | 0 | 1 | 0 | 1 | 100 |

B. THE FALL, 1973 INVENTORY OF NONCLINICAL INSTRUCTION FACILITIES CONTROLLED BY RESPONDENTS

1. Description

The 5 respondent schools of podiatric medicine reported 140,000 NASF (263,000 GSF) of "allocated" (controlled) instructional facilities, 94% of which were owned (or leased on a very long-term basis), and the remaining 6% rented or leased. The largest reported inventory, all of it "owned" by the respondent, was 34,000 NASF, twice the mean configuration size.

In an effort to better assure comparability of Net Assignable Square Footage (NASF) figures among the schools, the discussion henceforth excludes two room-types: "on-site patient care" due to its lack of fit within the framework of "nonclinical instruction facilities", and "other" space, due to the broad mix of space types it represents. Table 3.VI.2 displays how we derived, for discussion purposes, the 86,000 NASF of nonclinical instruction facilities.

TABLE 3.VI.2
DERIVATION OF THE FALL, 1973 INVENTORY OF NONCLINICAL INSTRUCTION
FACILITIES--SCHOOLS OF PODIATRIC MEDICINE

| | |
|--|-----|
| 1. Number of Schools | 5 |
| 2. Owned GSF* | 263 |
| 3. Owned NASF* | 131 |
| 4. Rented/leased NASF | 9 |
| 5. Total (owned or rented) NASF | 140 |
| 6. "On-site patient care", and "other" | 54 |
| 7. Total NASF of nonclinical instruction space | 86 |

* All GSF and NASF figures are in thousands.

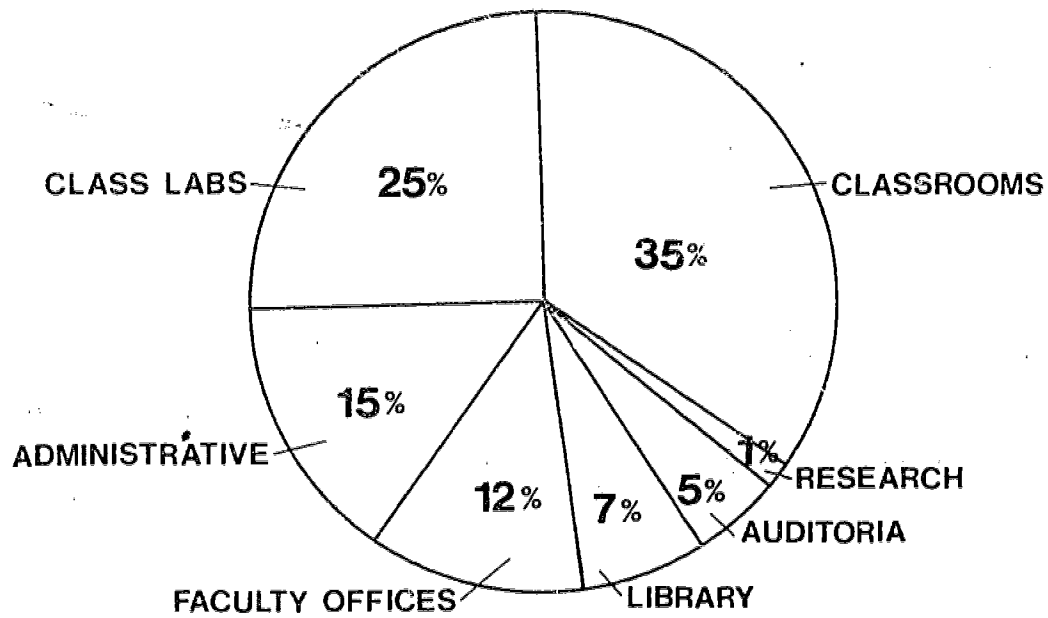
The 86,000 NASF are distributed among the groupings of schools (e.g., by size and control) as displayed in Table 3.VI.3. By comparison with Table 3.VI.2, we find that none of the "on-site patient care" or "other" facilities are in quarters which are rented or leased.

TABLE 3.VI.3
THE FALL, 1973 INVENTORY OF PODIATRY SCHOOLS' NONCLINICAL
INSTRUCTION FACILITIES

| | NUMBER OF SCHOOLS | OWNED NASF (000) | RENTED NASF (000) | TOTAL NASF (000) | AVERAGE NASF PER SCHOOL |
|-------------------|-------------------------|------------------------|-------------------------|------------------------|-------------------------------|
| TOTAL | 5 | 77 | 9 | 86 | 17 |
| Size of School | | | | | |
| Large | 2 | 45 | 2 | 47 | 24 |
| Medium | 1 | 10 | 2 | 12 | 12 |
| Small | 2 | 22 | 5 | 27 | 14 |
| Control | | | | | |
| Public | 0 | -- | - | -- | -- |
| Private | 5 | 77 | 9 | 86 | 17 |
| Geographic Locale | | | | | |
| Innercity | 4 | 43 | 9 | 52 | 13 |
| Outercity | 1 | 34 | 0 | 34 | 34 |
| Suburban | 0 | -- | - | -- | -- |
| Rural | 0 | -- | - | -- | -- |
| Census Region | | | | | |
| Northeast | 2 | 22 | 5 | 27 | 14 |
| Northcentral | 2 | 45 | 2 | 47 | 24 |
| South | 0 | -- | - | -- | -- |
| West | 1 | 10 | 2 | 12 | 12 |

Sixty percent of the nonclinical NASF in schools of podiatric medicine were located in classrooms and class laboratories as shown in Figure 3.VI.A.

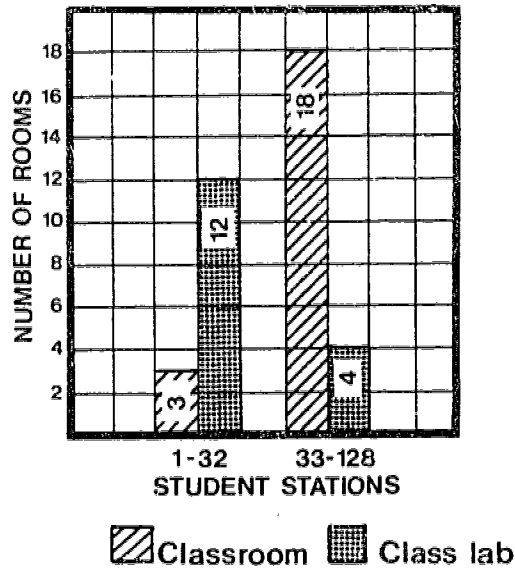
FIGURE 3.VI.A
DISTRIBUTION PROFILE OF NONCLINICAL INSTRUCTION FACILITIES FALL, 1973



As is clear from the figure, and as noted in the introduction to this chapter, schools of podiatry were much less oriented toward research than were many of the schools. Only two rooms were reported by the five respondents as being predominantly devoted to research.

As seen in the following graph, schools of podiatry tend to utilize small class laboratories and larger classrooms. In the fall, 1973 configuration, there were three times as many "small" (1 - 32 student stations) class laboratories as "large" (more than 32) and six times as many large class rooms as small. Eleven of the "large" classrooms were of more than 64 stations.

FIGURE 3.VI.B
NUMBER OF CLASSROOMS AND CLASS LABORATORIES BY VARIOUS STUDENT CAPACITIES



In terms of square footage, the classrooms and class laboratories were similar. Differences in number of stations per room rest with the fact that a class laboratory student station, on the average, required more than twice the space that a classroom student station required.

TABLE 3.VI.4
NASF PER ROOM AND STUDENT STATION

| | NASF (000) | NUMBER OF ROOMS | NUMBER OF STUDENT STATIONS | NASF PER ROOM | NASF PER STATION | STUDENT STATIONS PER ROOM |
|----------------------------|---------------|-----------------------|----------------------------------|---------------------|------------------------|---------------------------------|
| Classrooms | 29 | 21 | 1,324 | 1,381 | 22 | 63 |
| Class Laboratories | 21 | 16 | 428 | 1,312 | 49 | 27 |
| Research & Research Train. | 1 | 2 | 4 | 1,000 | -- | 2 |
| Library | 6 | -- | 232 | -- | 26 | -- |
| Auditoria | 4 | 1 | 350 | 4,000 | 11 | 350 |
| Faculty Offices | 10 | 64 | -- | 156 | -- | -- |

2. The Student Population Using the Inventory as of Fall, 1973

As of the start of the academic year 1973-1974, the total FTE enrollment of graduate and undergraduate students at schools of podiatric medicine was 1,555. Twenty-one of these students were reported as graduate students. As seen in Table 3.VI.5, nearly three-quarters of these students were situated in inner-city locales.

TABLE 3.VI.5
ENROLLMENT AT SCHOOLS OF PODIATRIC MEDICINE--FALL, 1973

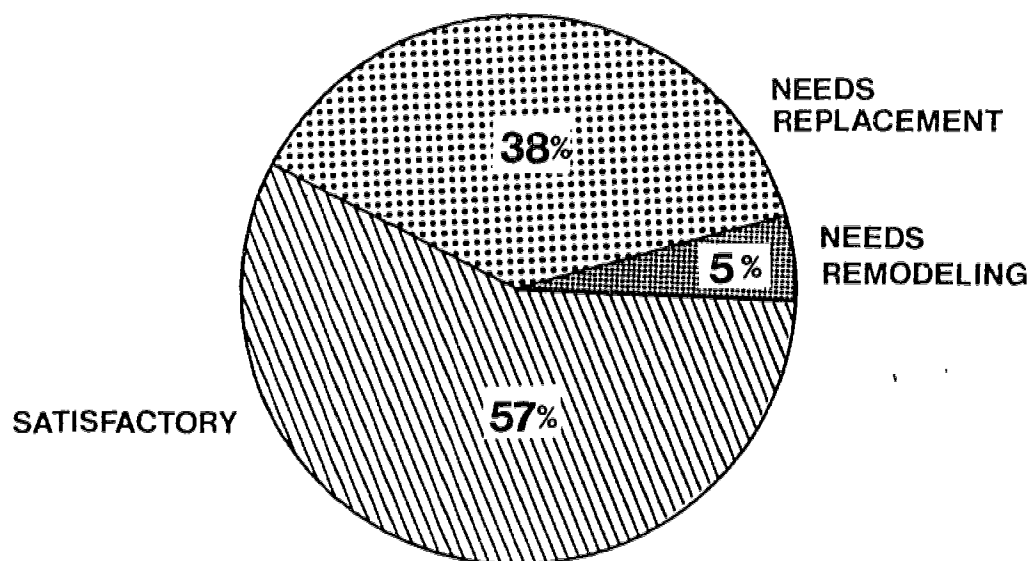
| | NUMBER OF SCHOOLS | FTE UNDERGRADUATE PLUS GRADUATE | FTE PER SCHOOL |
|-------------------|-------------------------|---------------------------------------|----------------------|
| TOTAL | 5 | 1,555 | 311 |
| Size of School | | | |
| Large | 2 | 814 | 407 |
| Medium | 1 | 283 | 283 |
| Small | 2 | 458 | 229 |
| Geographic Locale | | | |
| Innercity | 4 | 1,139 | 285 |
| Outercity | 1 | 416 | 416 |
| Census Region | | | |
| Northeast | 2 | 458 | 229 |
| Northcentral | 2 | 814 | 407 |
| South | 0 | -- | -- |
| West | 1 | 283 | 283 |

3. Adequacy of the Inventory

a. Condition of Space

The condition of space at schools of podiatric medicine was reported to be generally worse than at schools of other professions. Only 57% (49,000 NASF) of the total inventory was considered "satisfactory for program purposes" and a minimal amount of the unsatisfactory space (4,000 NASF) could be made satisfactory through remodeling. The remaining 33,000 NASF were reported to require replacement (see Figure 3.VI.C).

FIGURE 3.VI.C
CONDITION OF SPACE, SCHOOLS OF PODIATRIC MEDICINE--FALL 1973

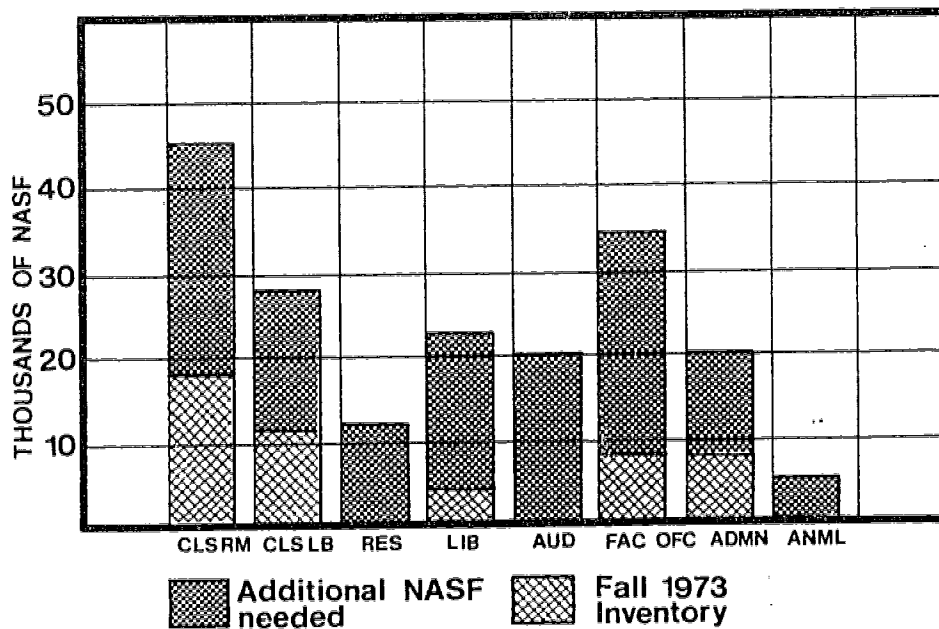


The percents of satisfactory space shown above are relatively consistent for all room types except faculty offices where only 30% of the space was considered satisfactory.

b. Need for Nonclinical Facilities as of Fall, 1973

As reflected above with respect to condition of space, four of the responding schools of podiatric medicine had expressed requirements for new space to accommodate their then-current enrollment. These four schools, with an aggregate inventory of 52 thousand NASF, perceived 120 thousand NASF to be needed, 231% of their fall, 1973 inventory. Unfortunately, one school that reported more than half the total space needed did not specify the reasons for this need. Most of the space listed by the other respondents, however, was required to relieve overcrowding. Since only 57% of the space was reported satisfactory, one may assume "poor condition" or "obsolescence" to be major concerns if the responses are to be consistent. The perceived needs, by type of space, are displayed in Figure 3.VI.D.

FIGURE 3.VI.D
COMPARISON OF SPACE NEEDS AND AVAILABILITIES



With respect to library facilities in particular, four schools answered the subjective question regarding "enrollment versus library capacity". Three of these schools, sixty percent of the podiatry schools' universe, stated that their libraries were highly overcrowded, the other indicating sufficient library facilities.

The five schools also reported, in total, the following "minimum" needs for resource categories defined in the survey instrument:

TABLE 3.VI.6
NEEDS (OTHER THAN NONCLINICAL INSTRUCTION FACILITIES),
SCHOOLS OF PODIATRIC MEDICINE--FALL, 1973

| | NUMBER OF SCHOOLS | NEED |
|---------------------|-------------------------|-------------|
| Faculty (FTE) | 5 | 104 |
| Support Staff (FTE) | 5 | 101 |
| Operating Funds | 5 | \$4,250,000 |
| Equipment | 5 | \$2,146,000 |
| Hospital Beds | 3 | 110 |
| Examining Rooms | 4 | 140 |

4. Resource Usage

a. NASF and Stations Per Student

The five schools of podiatric medicine reported 55 NASF per student in the aggregate, ranging from 33 to 82 on a per school basis. There was almost one station per student in classrooms (.85) and .28 stations per student in class laboratories. The space that was considered "allocated" was basically the only nonclinical instruction space available to the students since the five schools neither had available nor used joint-use facilities, nor were there such facilities available in owned or major affiliated hospitals and clinics (with the exception of a small amount of administrative and classroom area). As discussed in other sections, this lack of joint-use space is largely a function of the fact that all five schools are freestanding institutions. Typically, it is the public schools in health sciences centers or other multiple school environments that share space.

TABLE 3.VI.7
SPACE AND STATIONS PER STUDENT, SCHOOLS OF PODIATRIC
MEDICINE--FALL, 1973

| | NASF | NASF PER STUDENT | STATIONS PER STUDENT |
|----------------------------|------|------------------|----------------------|
| TOTAL | 86 | 55 | -- |
| Classrooms | 29 | 19 | .85 |
| Class Laboratories | 21 | 14 | .28 |
| Research & Research Train. | 1 | 1 | .00 |
| Library | 6 | 4 | .15 |
| Auditorium | 4 | 3 | .23 |
| Faculty Offices | 10 | 6 | -- |
| Administrative Offices | 13 | 8 | -- |
| Animal Facilities | 0 | 0 | -- |

b. Usage of Classrooms and Class Laboratories

Use of classroom space was fairly evenly divided between basic biological and clinical sciences instruction (46% and 38%, respectively) with 16% used for mixed purposes. For class laboratories, the majority (87%) of the space was used for basic biological sciences instruction.

The caveats of PART 1 state that our purpose in computing room and student station utilization is not evaluative in nature, but rather is for comparative analysis. In reviewing the utilization-related measures which follow, this purpose must be kept in mind since the figures presented--in particular, the percentages--will appear low.

This situation arises because to make the figures comparable, we used 2,080 hours as a substitute for the various-length academic years reported by respondents. Since the reported lengths of year were typically shorter than 2,080 hours, the effect is to depress the utilization percentages. The formula used is, in simple terms, given by:

$$\frac{\text{resource hours used}}{\text{resource hours "available"}} \times 100 = \% \text{ utilization}$$

Essentially, the same formula is used whether the resource under analysis is a room or a student station (see Appendix G for the computational details). The effect of our substitution is to replace, with 2,080 hours, some smaller number in the denominator of the formula thereby decreasing the computed ratio in most cases. For example, in the case of room utilization, the denominator is changed from:

$$\frac{\text{number of rooms} \times \text{length of academic year}}{\text{number of rooms} \times 2,080}$$

In sum, then, it is the pattern in the percentages--rather than their absolute values--which are of importance.

Classrooms and class laboratories at schools of podiatric medicine were used to a relatively high degree in comparison with similar rooms of other professions. The average classroom was used 765 hours per year; while the average class laboratory was used 500 or 340 hours per year, depending upon whether it was general or special purpose.

TABLE 3.VI.8
MEAN HOURS OF USAGE, PODIATRY SCHOOLS' CLASSROOMS AND
CLASS LABORATORIES--FALL, 1973

| | CLASSROOMS | | | CLASS LABORATORIES | | |
|-------------------|-----------------------------|-----------------|------------------------------|-----------------------------|-----------------|------------------------------|
| | TOTAL HOURS' USAGE PER YEAR | NUMBER OF ROOMS | MEAN HOURS OF USAGE PER YEAR | TOTAL HOURS' USAGE PER YEAR | NUMBER OF ROOMS | MEAN HOURS OF USAGE PER YEAR |
| TOTAL | 16,062 | 21 | 765 | 7,680 | 16 | 480 |
| Size of School | | | | | | |
| Large | 7,092 | 10 | 709 | 2,784 | 7 | 398 |
| Medium | 3,960 | 4 | 990 | 2,400 | 3 | 800 |
| Small | 5,010 | 7 | 716 | 2,496 | 6 | 416 |
| Geographic Locale | | | | | | |
| Innercity | 13,308 | 16 | 832 | 5,980 | 11 | 544 |
| Outercity | 2,754 | 5 | 551 | 1,700 | 5 | 340 |

According to our formulae, classrooms were used 35% of the "available" hours during the 2,080 hour year, while the student stations within those rooms were used 30% of the time. The class laboratory room use percentage is somewhat lower than that for the classrooms (23%). The station utilization figure of 40% is given for completeness, recognizing that, in theory, station utilization must approach room usage as an upper bound. Unfortunately, a number of usage-related data errors had not yet been corrected at the time of this writing, and in view of our small sample size, are large enough to impact the averages. The figures are, in any event, presented in Table 3.VI.9 so that the reader may gain insight into the pattern of these percentages across the various groupings of schools used in this discussion.

TABLE 3.VI.9
CLASSROOM AND CLASS LABORATORY "ROOM AND STATION
UTILIZATION," SCHOOLS OF PODIATRIC MEDICINE--FALL, 1973

| | CLASSROOMS | | CLASS LABORATORIES | |
|-------------------|----------------------------|--|----------------------------|--|
| | ROOM UTILIZATION (%) | STUDENT STATION UTILIZATION (%) | ROOM UTILIZATION (%) | STUDENT STATION UTILIZATION (%) |
| TOTAL | 35 | 30 | 23 | 40 |
| Size of School | | | | |
| Large | 31 | 36 | 19 | 41 |
| Medium | 48 | 22 | 38 | 61 |
| Small | 34 | 28 | 20 | 27 |
| Geographic Locale | | | | |
| Innercity | 40 | 29 | 26 | 45 |
| Outercity | 22 | 33 | 16 | 26 |

c. Faculty Offices

While the average faculty member at schools of podiatric medicine is assigned approximately 68 NASF, variation about this mean is substantial, as seen in Table 3.VI.10. For individual schools, this measure ranged from 33 to 167 NASF per FTE faculty member.

TABLE 3.VI.10
FACULTY OFFICE SPACE PER FACULTY MEMBER,
SCHOOLS OF PODIATRIC MEDICINE--FALL, 1973

| | NUMBER OF FTE FACULTY | NASF OF FACULTY OFFICE SPACE (000) | NASF PER FACULTY MEMBER |
|-------------------|-----------------------------|---|-------------------------------|
| TOTAL | 148 | 10 | 68 |
| Size of School | | | |
| Large | 52 | 5 | 96 |
| Medium | 32 | 2 | 63 |
| Small | 64 | 3 | 47 |
| Geographic Locale | | | |
| Innecity | 114 | 8 | 70 |
| Outercity | 34 | 2 | 59 |

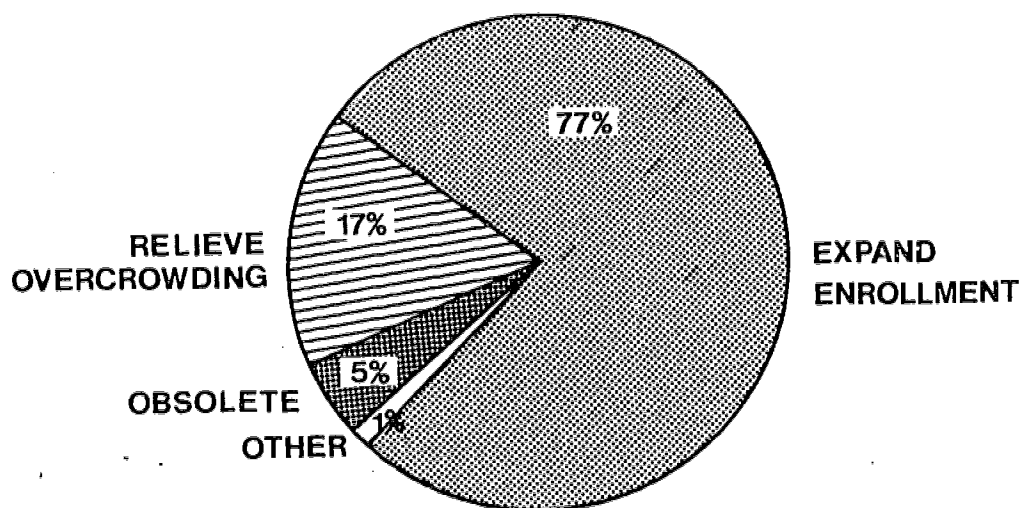
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C. ONGOING CONSTRUCTION AND REMODELING AND THE POST CONSTRUCTION INVENTORY

1. Extent, Purposes, and Cost

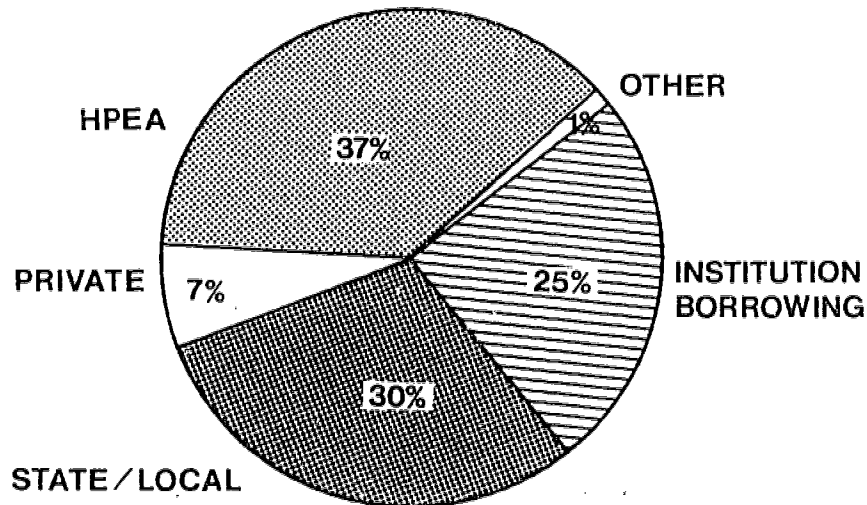
Two of the five schools reported ongoing construction programs totalling \$14.6 million for 209,000 GSF. One of the two also reported a remodeling program of 8,000 NASF at a cost of \$50,000. The larger of the two construction programs (149 thousand GSF) was being carried out for the purpose of expanding enrollment. Thus, 77% of the two programs were for the latter purpose (see Figure 3.VI.E).

FIGURE 3.VI.E
PURPOSES OF ONGOING CONSTRUCTION AT TWO SCHOOLS OF PODIATRIC MEDICINE--FALL 1973



As seen in the following figure, three sources provided most of the funds for the two construction programs: state or local funds, HPEA construction grants, and institution borrowing (see Figure 3.VI.F).

FIGURE 3.VI.F
SOURCES OF FUNDS, FALL 1973 CONSTRUCTION



2. Effects of Ongoing Construction and Remodeling

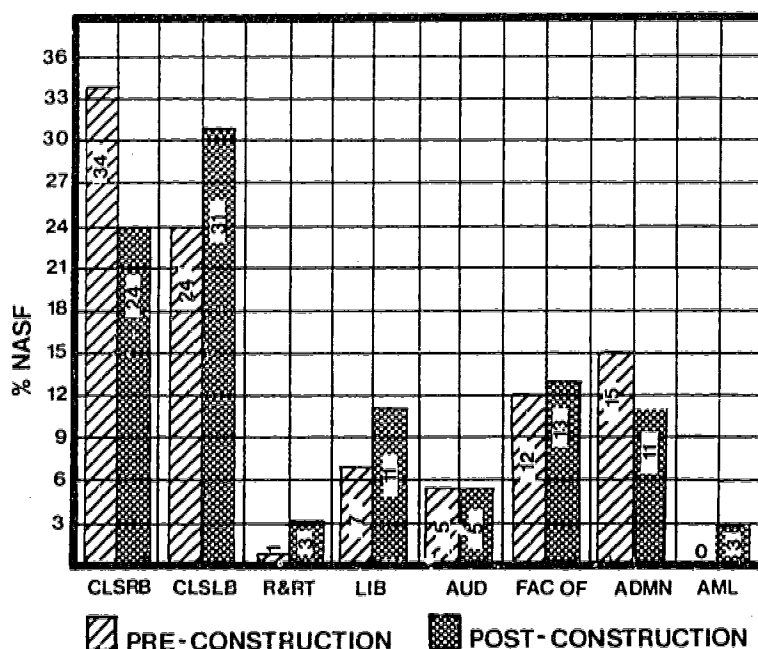
Following the completion of the ongoing construction and remodeling programs, the nonclinical facilities inventory at schools of podiatric medicine will rise to 150,000 NASF from 86,000 NASF. In addition, 7,000 NASF of the rented inventory will have been vacated, leaving 2,000 NASF rented in the "post-construction" inventory. As may be seen in Table 3.VI.11, the changes for certain room-types--as a percentage of the fall, 1973 inventory, are substantial.

TABLE 3.VI.11
CHANGES IN CONTROLLED, NONCLINICAL INSTRUCTION FACILITIES,
FALL 1973 TO "POST-CONSTRUCTION"

| | NASF (000) 1973 | NASF (000) POST- CONSTRUCTION | DIFFERENCE | % CHANGE |
|----------------------------|-----------------------|-------------------------------------|------------|----------|
| TOTAL | 86 | 150 | 64 | 74 |
| Classroom | 29 | 36 | 7 | 24 |
| Class Laboratory | 21 | 46 | 25 | 119 |
| Research & Research Train. | 1 | 4 | 3 | 300 |
| Library | 6 | 16 | 10 | 167 |
| Auditorium | 4 | 7 | 3 | 75 |
| Faculty Offices | 10 | 20 | 10 | 100 |
| Administrative Areas | 13 | 16 | 3 | 23 |
| Animal Facilities | 0 | 4 | 4 | -- |

Notwithstanding the large percentage changes in the various room-types, the space distribution profile (i.e., percent of total space accounted for by each room type) would, following the completion of ongoing construction, appear similar to what it was before. The major difference would be a reversal of classroom and class laboratory proportions, with class laboratories assuming a more prominent role as seen in Figure 3.VI.G.

FIGURE 3.VI.G
PRE-CONSTRUCTION/POST-CONSTRUCTION SPACE DISTRIBUTION PROFILE



Class laboratories appear to be a major thrust of the construction ongoing as of fall, 1973. Fourteen new rooms (an 88% increase) were being built and, upon their completion, the average NASF per room was to be increased from 1,312 to 1,533. The class laboratory NASF/student ratio would also have been increased from 14 to 24. Faculty offices, which averaged 68 NASF per faculty member, were a second major thrust of the construction programs, with forty new offices being built, resulting in a post-construction ratio of 105 NASF per FTE faculty member.

With 2/3 of the enrollment growth occurring in the one school with the large enrollment expansion program, podiatry student enrollment will have increased by 21% following completion of the construction ongoing as of the survey date.

3. Post-Construction Needs

Four schools indicated a need for space over and above that being constructed or remodeled as of the survey date. In all, 64,000 NASF were reported as needed, indicating that ongoing construction programs had alleviated 47% of the need reported as of the fall of 1973. Table 3.VI.12 displays the need on a room-type by room-type basis. The relative magnitude of that need is highlighted by comparing it with the inventory of only those schools reporting a need.

TABLE 3.VI.12
POST-CONSTRUCTION FACILITIES NEEDS--SCHOOLS OF PODIATRIC MEDICINE

| | TOTAL INVENTORY (000 NASF) (1) | INVENTORY OF SCHOOLS EX- PRESSING A NEED (000 NASF) (2) | NASF NEEDED (000) (3) | COLUMN 3 AS A % OF COLUMN 2 |
|------------------------------|---|--|-----------------------------|-----------------------------------|
| TOTAL | 150 | 58 | 64 | 110 |
| Classrooms | 36 | 16 | 16 | 100 |
| Class Laboratories | 46 | 13 | 10 | 77 |
| Research & Research Training | 4 | 1 | 7 | 700 |
| Library | 16 | 9 | 9 | 100 |
| Auditoria | 7 | 0 | 9 | -- |
| Faculty Offices | 20 | 9 | 7 | 78 |
| Administrative Areas | 16 | 5 | 5 | 100 |
| Animal Facilities | 4 | 1 | 3 | 300 |

D. THE 1983 LOOK AHEAD

Unfortunately, uncorrected inconsistencies exist in the data regarding construction and remodeling planned by 1983. Basically, these questions concern purposes of construction as compared with projected enrollment growth. Two schools reported construction projects of 205 thousand NASF in total. Almost 2/3 of this space was estimated to be for expansion of enrollment. In contrast to this intent, the 1983 enrollment projection for these two schools showed no increase at all. On the other hand, the other three schools indicated enrollment increases large enough to bring the average increase (for the five schools) to 21%.

TABLE 3.VI.13
FALL, 1973 AND PROJECTED ENROLLMENT COMPARISONS

| FALL 1973 HEADCOUNT | POST CONSTRUCTION HEADCOUNT | FALL, 1983 HEADCOUNT |
|------------------------|--------------------------------|-------------------------|
| 1,555 | 1,887 | 2,278 |

E. INVENTORY OF CLINICAL FACILITIES AND NONCLINICAL INSTRUCTION FACILITIES
IN CLINICAL AREAS--FALL, 1973

1. Nonclinical Instruction Facilities in Clinical Areas

Nonclinical space in the two clinical affiliates used by the schools of podiatric medicine amounted to only 1,000 NASF, primarily in administrative facilities. Two schools however, did report a need or desire for 8,000 NASF of this type, and 26,000 NASF were under construction at one hospital, perhaps indicating the beginnings of a trend in this aspect of podiatry schools' facilities configurations.

2. Clinical Resources

The schools of podiatric medicine were primarily oriented toward the use of outpatient clinics. Only one hospital was accessed as an inpatient source, and this 28 bed facility had an average daily patient load (census) of 17.

With respect to outpatient contact, the "on-site patient care areas" as defined in the survey, provided approximately three times the clinical material resources as did the "off-site" hospitals and clinics. Just over 100,000 outpatient visits per year were available for student training in the "on-site patient care" facilities. Patient stations, also, were about three times more numerous in the on-site facilities, 145 versus 55.

Table 3.VI.14 summarizes the patient care data in the "on-site" areas and the "off-site" hospitals and outpatient clinics.

TABLE 3.VI.14

FTE ENROLLMENT AT PODIATRY SCHOOLS, AND THE CLINICAL TEACHING
RESOURCES REPRESENTED BY "ON-SITE" AND "OFF-SITE" CLINICS

| | NUMBER OF OUTPATIENT CLINICS | NUMBER OF OUTPATIENT STATIONS | NUMBER OF OUTPATIENT VISITS | FTE EN- ROLLMENT | VISITS PER STUDENT | STUDENTS PER OUT- PATIENT STATION |
|-----------------|------------------------------------|-------------------------------------|-----------------------------------|---------------------|--------------------------|--|
| "On-Site" Care | 3 | 145 | 100,054 | 1,555 | 64 | 11 |
| Hospital/Clinic | 2 | 55 | 33,500 | 1,555 | 22 | 28 |
| Total | 5 | 200 | 133,554 | 1,555 | 86 | 8 |

It should be noted that in the above table, the per student clinical resources are understated to the extent that patient contact is usually not a part of the podiatry curriculum in the early years of the program, and total FTE enrollment has been used in the denominator of the various ratios of resources per student.

F. ONGOING CONSTRUCTION AND REMODELING AND THE POST-CONSTRUCTION INVENTORY OF CLINICAL INSTRUCTION FACILITIES

1. Extent, Purposes, and Cost

One construction and remodeling program was reported by a hospital used as a major component of the teaching program at one school of podiatric medicine. Involving some 26,000 NASF of nonclinical instruction facilities to become available for use by the school involved, the program's \$3.5 million funding was obtained primarily through borrowing (94%) with the remainder (\$200,000) supplied by the school itself and by a philanthropic organization.

2. Effects of Ongoing Construction and Remodeling

The nonclinical instruction facilities inventory, increased to 27,000 NASF, will be comprised of 45% classroom and class laboratory facilities, and most of the remainder divided among library, faculty office, and administrative office facilities.

The reported construction will serve to increase not only the nonclinical instruction facilities, but the patient contact resources as well. Thus, five inpatient beds will be added to the 28 bed inventory discussed previously; and the number of ambulatory patient stations will be increased from 200 to 250 as a result of the ongoing construction. No other construction of clinical teaching space is planned through 1983.

VII. SCHOOLS OF PUBLIC HEALTH

A. INTRODUCTION

The distinguishing feature of schools of public health seems to be that they are, more than any other profession surveyed, similar to that which the layman might consider a "typical graduate school". There is virtually no clinical component in a Public Health curriculum, and the primary thrust of educational activity relates to classroom and class laboratory instruction. Although the 8 or 9 major curricula offered by schools of Public Health tend, according to those knowledgeable in the field, to require differing facilities, these differences would not be reflected by our data due to the level of detail at which said differences exist (e.g., the special purpose facilities required for the study of health statistics versus the study of nutrition or epidemiology would not be reflected through the survey instrument's simplistic categorization of "general" versus "special" purpose class laboratory).

Under the hypothesis that enrollment has impact not only on the amount of educational facilities required, but the relative amounts of various room types to be found in a given configuration, the schools of public health were categorized as "small", "medium", or "large" as a function of their full time equivalent enrollment. As in the cases of the other professions surveyed, a frequency distribution of reported enrollment was utilized in developing a set of "natural" ranges for the respective size groups: small, 0-200; medium, 201-400; and large, above 400. Table 3.VII.1 shows these and other categorizations, so that the response rate (and the nature of respondents) can be used to place the discussion which follows within the perspective of the 18 public health schools in the nation.

One new school of Public Health, reporting a fall, 1973 enrollment level of 32 students, indicated a controlled inventory of 9,000 NASF of which 78% was rented. As of the survey date, the reported enrollment level engendered a perceived need for 5,000 NASF of additional facilities. No enrollment growth projections nor construction plans were available as of the survey closeout date.

TABLE 3.VII.1
DERIVATION OF SURVEY RESPONSE RATE FOR SCHOOLS OF PUBLIC HEALTH

| SCHOOLS OF: PUBLIC HEALTH | NUMBER OF SCHOOLS IN UNIVERSE | NON-RESPONDENT | | | RESPON- DENTS (NO. 1 - NO.2) | NEW SCHOOLS RESPON- DING | ESTAB- LISHED RESPON- DENTS (#3-#4) | NON-SUB- STANTIVE FORMS ESTAB. SCHOOLS | RE- SPONSES USED IN ANALYSIS (#5-#6) | ANALYZED SCHOOLS AS A % OF ESTAB- LISHED UNIVERSE (7/(1-2a-4)) |
|------------------------------|---|----------------|-----------------------------|------------------------|---------------------------------------|-----------------------------------|---|--|--|--|
| | | NEW SCHOOLS | ESTAB- LISHED SCHOOLS | TOTAL (#2a+ #2b) | | | | | | |
| TOTAL | #1 18 | #2a 0 | #2b 5 | #2c 5 | #3 13 | #4 1 | #5 12 | #6 0 | #7 12 | #8 71 |
| Large | 3 | 0 | 1 | 1 | 2 | 0 | 2 | 0 | 2 | 67 |
| Medium | 7 | 0 | 2 | 2 | 5 | 0 | 5 | 0 | 5 | 71 |
| Small | 8 | 0 | 2 | 2 | 6 | 1 | 5 | 0 | 5 | 71 |
| Public | 12 | 0 | 4 | 4 | 8 | 1 | 7 | 0 | 7 | 64 |
| Private | 6 | 0 | 1 | 1 | 5 | 0 | 5 | 0 | 5 | 83 |
| Innercity | | | | | | | | | 6 | |
| Outercity | | | | | | | | | 6 | |
| Suburban | | | | | | | | | 0 | |
| Rural | | | | | | | | | 0 | |
| Classical | | | | | | | | | 12 | |
| Revised | | | | | | | | | 0 | |
| Northeast | 5 | 0 | 1 | 1 | 4 | 0 | 4 | 0 | 4 | 80 |
| Northcentral | 2 | 0 | 0 | 0 | 2 | 1 | 1 | 0 | 1 | 100 |
| South | 6 | 0 | 3 | 3 | 3 | 0 | 3 | 0 | 3 | 50 |
| West | 5 | 0 | 1 | 1 | 4 | 0 | 4 | 0 | 4 | 80 |

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B. THE FALL, 1973 INVENTORY OF NONCLINICAL INSTRUCTION FACILITIES CONTROLLED BY RESPONDENTS

1. Description

The 12 degree-granting respondent schools of public health reported 999,000 NASF (1.51 million GSF) of "allocated" (controlled) nonclinical instruction facilities. To assure comparability of the NASF figures among the schools, the analysis henceforth excludes "on-site patient care" and "other" facilities in view of their mixed nature and meaning to various respondents. Table 3.VII.2 displays how the 916,000 NASF of nonclinical instruction facilities used in the subsequent analysis were derived from the 999,000 NASF reported.

TABLE 3.VII.2
DERIVATION OF PUBLIC HEALTH SCHOOLS' ANALYZABLE
INVENTORY OF NONCLINICAL INSTRUCTION FACILITIES

| | |
|--|-------|
| 1. Number of Schools | 12 |
| 2. Owned GSF* | 1,511 |
| 3. Owned NASF* | 844 |
| 4. Rented/leased NASF | 155 |
| 5. Total (owned or rented) NASF | 999 |
| 6. Less "on-site patient care" and "other" | 83 |
| 7. Total NASF of nonclinical instruction space | 916 |

* All square footage figures are in thousands.

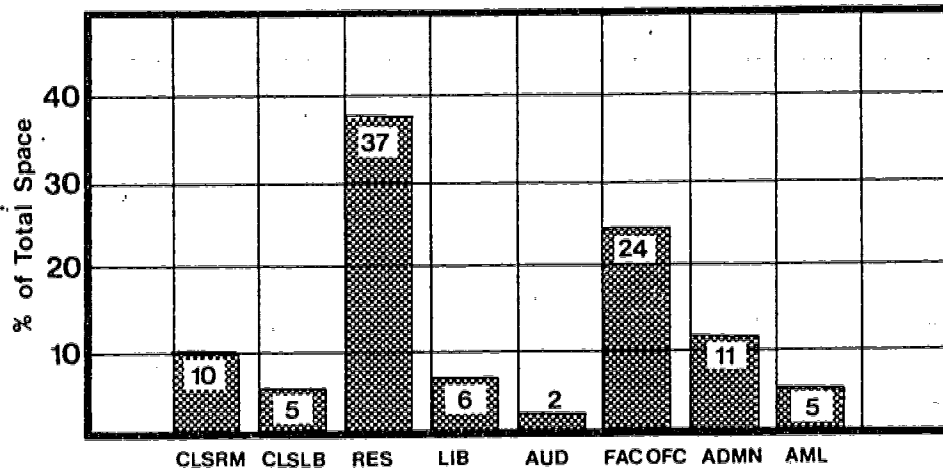
Of the 916,000 NASF of nonclinical instruction facilities controlled by schools of public health, 84% were owned (or leased on a very long-term basis), and the remaining 16% rented or leased. The largest reported inventory, all of it "owned" by the respondent, was just under 200 thousand NASF. The mean configuration size, 76,000 NASF, was nearly three times the size of the smallest reported inventory. Configuration size does not appear to vary with "locale" (see Table 3.VII.3), but when the schools are grouped by control, the "average" publicly controlled school is somewhat smaller than its counterpart in the private sector.

TABLE 3.VII.3
NONCLINICAL INSTRUCTION FACILITIES AT SCHOOLS OF PUBLIC HEALTH,
FALL, 1973

| | NUMBER OF SCHOOLS | TOTAL NASF (000) | OWNED NASF (000) | RENTED NASF (000) | AVERAGE NASF PER SCHOOL (000) |
|-------------------|-------------------------|------------------------|------------------------|-------------------------|-------------------------------------|
| TOTAL | 12 | 916 | 772 | 144 | 76 |
| Size of School | | | | | |
| Large | 2 | 280 | 246 | 34 | 140 |
| Medium | 5 | 446 | 402 | 44 | 89 |
| Small | 5 | 190 | 124 | 66 | 38 |
| Control | | | | | |
| Public | 7 | 432 | 354 | 78 | 62 |
| Private | 5 | 484 | 418 | 66 | 97 |
| Geographic Locale | | | | | |
| Innecity | 6 | 456 | 363 | 93 | 76 |
| Outercity | 6 | 460 | 409 | 51 | 77 |
| Suburban | 0 | -- | -- | -- | -- |
| Rural | 0 | -- | -- | -- | -- |
| Census Region | | | | | |
| Northeast | 4 | 356 | 317 | 39 | 89 |
| Northcentral | 1 | 43 | 40 | 3 | 43 |
| South | 3 | 315 | 254 | 61 | 105 |
| West | 4 | 202 | 161 | 41 | 51 |

The distribution profile" of the percentages of space considered "classroom", "class laboratory", etc. is fairly constant as the twelve public health schools used in the analysis are grouped according to size, locale, control, and so on. Figure 3.VII.A depicts these percentages.

FIGURE 3.VII.A
PUBLIC HEALTH SCHOOLS' SPACE DISTRIBUTION PROFILE
FALL, 1973



One major departure from this profile appears in the greater relative availability of research and research training space in the private schools (44%) than for the public schools (30%). In both cases, the apparent commitment to research and research training rivals that of medical schools from the standpoint of the percentage distribution of room-types.

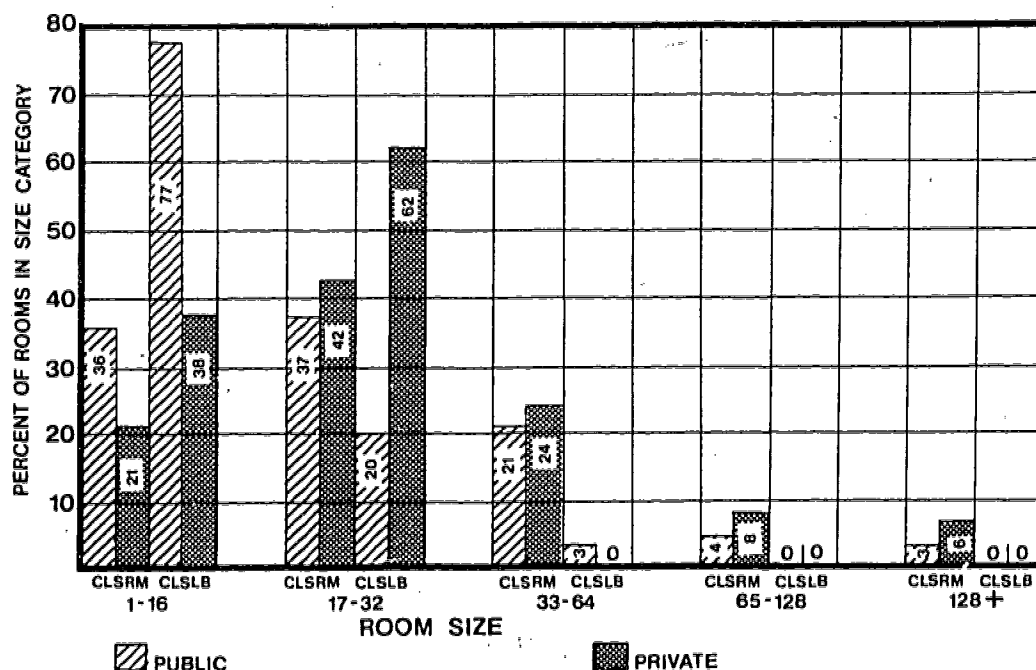
Table 3.VII.4 contains the aggregated responses of public health schools to the questions concerning square footage per room and station. Classroom and auditorium figures tend toward constancy over all the professions surveyed, although class laboratories reported here tend toward the small side by a factor of two, both in terms of square footage and number of stations.

TABLE 3.VII.4
NASF PER ROOM AND STATION, SCHOOLS OF PUBLIC HEALTH
FALL, 1973

| | NASF (000) | NUMBER OF ROOMS | NUMBER OF STUDENT STATIONS | NASF/ STATION | NASF/ ROOM | STATIONS/ ROOM |
|----------------------------|---------------|-----------------------|----------------------------------|------------------|---------------|-------------------|
| Classrooms | 91 | 144 | 4,360 | 21 | 632 | 30 |
| Class Laboratories | 44 | 85 | 1,060 | 41 | 578 | 12 |
| Research & Research Train. | 341 | 967 | 1,168 | 269 | 353 | 1.2 |
| Library | 55 | -- | 998 | 55 | -- | -- |
| Auditoria | 18 | 6 | 1,438 | 11 | 2,667 | 240 |
| Faculty Offices | 225 | 1,375 | -- | -- | 161 | -- |

The distribution of classroom and class laboratory capacities at schools of public health is heavily weighted toward the smaller size categories for the publicly controlled schools, while the privately controlled schools report a larger portion of their rooms in the larger size categories. This unexplained but obvious difference is detailed in Figure 3.VII.B.

FIGURE 3.VII.B
THE EFFECT OF CONTROL OF PUBLIC HEALTH SCHOOL ON THE DISTRIBUTION
OF CLASSROOMS AND LABORATORIES, FALL, 1973



2. The Student Population Using the Current Inventory

The responding schools of public health indicated that the total FTE enrollment as of the Fall, 1973 was 3,254. Just over 63% of the students attended publicly controlled schools, with the remaining 37% enrolled in the private sector. Just under half (44%) of the students were reported to be located in innercity settings, with the remainder in outercity locales.

TABLE 3.VII.5
FTE ENROLLMENT OF PUBLIC HEALTH SCHOOLS--FALL, 1973

| | NUMBER OF SCHOOLS | FTE ENROLLMENT | AVERAGE FTE PER SCHOOL |
|-------------------|----------------------|-------------------|---------------------------|
| TOTAL | 12 | 3,254 | 271 |
| Size of School | | | |
| Large | 2 | 934 | 467 |
| Medium | 5 | 1,516 | 305 |
| Small | 5 | 804 | 161 |
| Control | | | |
| Public | 7 | 2,061 | 294 |
| Private | 5 | 1,193 | 239 |
| Geographic Locale | | | |
| Innercity | 6 | 1,435 | 239 |
| Outercity | 6 | 1,819 | 303 |
| Census Region | | | |
| Northeast | 4 | 808 | 202 |
| Northcentral | 1 | 356 | 356 |
| South | 3 | 1,103 | 368 |
| West | 4 | 987 | 247 |

3. Adequacy of the Inventory

a. Condition of Space

Just under 81% of the 916,000 NASF of public health schools' nonclinical instruction facilities were reported to be "satisfactory for program purposes". Of the remaining 19% (175,000 NASF), 99,000 were perceived as needing replacement (prior to the effects of current construction

programs) and 76,000 NASF could be brought to a satisfactory state through remodeling. There is a pronounced but irregular relationship between the size of FTE enrollment and the reported condition of space, with small schools perceiving only 108,000 of their 190,000 NASF inventory to be "satisfactory for program purposes" (see Table 3.VII.6).

When the respondent population is divided according to "locale of school" the portion of space reported as "unsatisfactory" is largest for inner-city schools (33%). Representing some 150,000 NASF, this space is split almost evenly between "needing remodeling" and "needing replacement".

TABLE 3.VII.6
CONDITION OF SPACE IN SCHOOLS OF PUBLIC HEALTH--FALL, 1973

| | TOTAL NASF (000) | SATISFACTORY | | NEEDS REMODELING | | NEEDS REPLACEMENT | |
|-------------------|------------------------|---------------|----|---------------------|----|----------------------|----|
| | | NASF (000) | % | NASF (000) | % | NASF (000) | % |
| TOTAL | 916 | 741 | 81 | 76 | 8 | 99 | 11 |
| Size of School | | | | | | | |
| Large | 280 | 195 | 70 | 70 | 25 | 15 | 5 |
| Medium | 446 | 438 | 98 | 5 | 1 | 3 | 1 |
| Small | 190 | 108 | 57 | 1 | 1 | 81 | 42 |
| Control | | | | | | | |
| Public | 432 | 374 | 87 | 5 | 1 | 53 | 12 |
| Private | 484 | 367 | 76 | 71 | 15 | 46 | 9 |
| Geographic Locale | | | | | | | |
| Innercity | 456 | 304 | 67 | 71 | 16 | 81 | 17 |
| Outercity | 460 | 437 | 95 | 5 | 1 | 18 | 4 |

The publicly controlled schools reported somewhat more satisfactory space (on a percentage basis) than did the private schools (87 versus 76%). Thus, as apparent in Table 3.VII.6, even though nearly half the inventory of nonclinical instruction facilities were controlled by the public sector, the number of NASF needing remodeling or replacement is much greater for the private sector.

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The problem of unsatisfactory condition, most prevalent in the small schools of public health, was spread over most room-types constituting their nonclinical instruction facilities inventory. However, classrooms, research and research training space, faculty office space, and auditoria ranged between 48% and 67% unsatisfactory, and were thereby the greatest contributors to the problem.

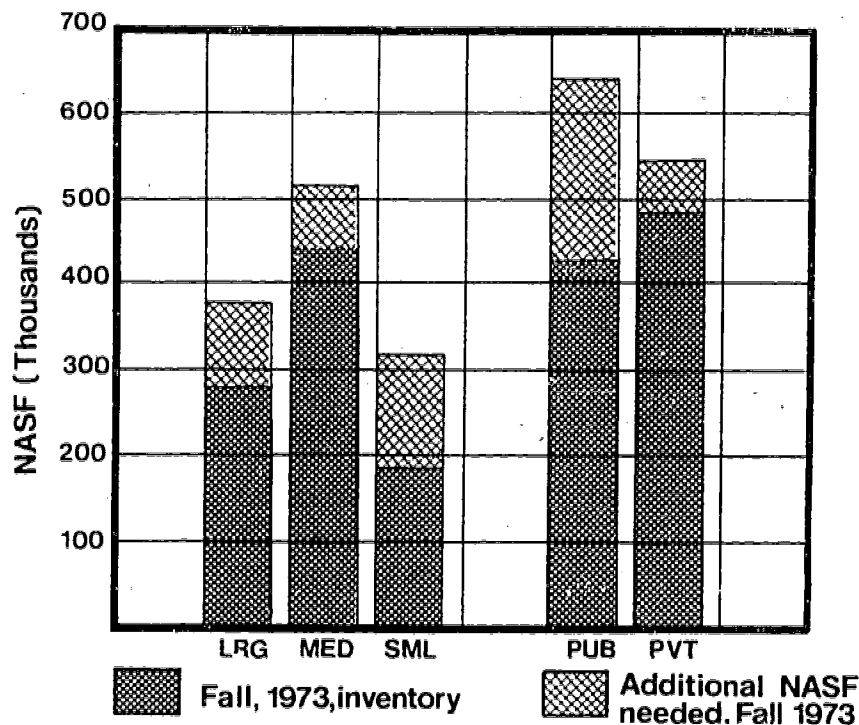
b. Need for Nonclinical Facilities as of Fall, 1973

Although a portion of the facilities need which existed as of the survey date would be mitigated by the ongoing construction and remodeling programs of respondents, their perceptions of need at that time give us insight into the facilities configurations felt to be necessary for satisfactorily accommodating their then-existing enrollment.

In all, seven schools of public health perceived a need for 269,000 additional NASF of nonclinical instruction facilities. When expressed as a portion of the aggregate fall, 1973 inventory, this need was over 29% of that inventory. More poignantly, perhaps, it was 53% of the inventory of those schools expressing a need for space.

As may be seen in Figure 3.VII.C, the publicly controlled schools reported the greatest portion of the perceived needs, a portion which, if fulfilled, would bring the public sector above the private sector in terms of total NASF. By the same token, the need reported by the private schools represents nearly 60% of their total availability of nonclinical instruction facilities as of the survey date.

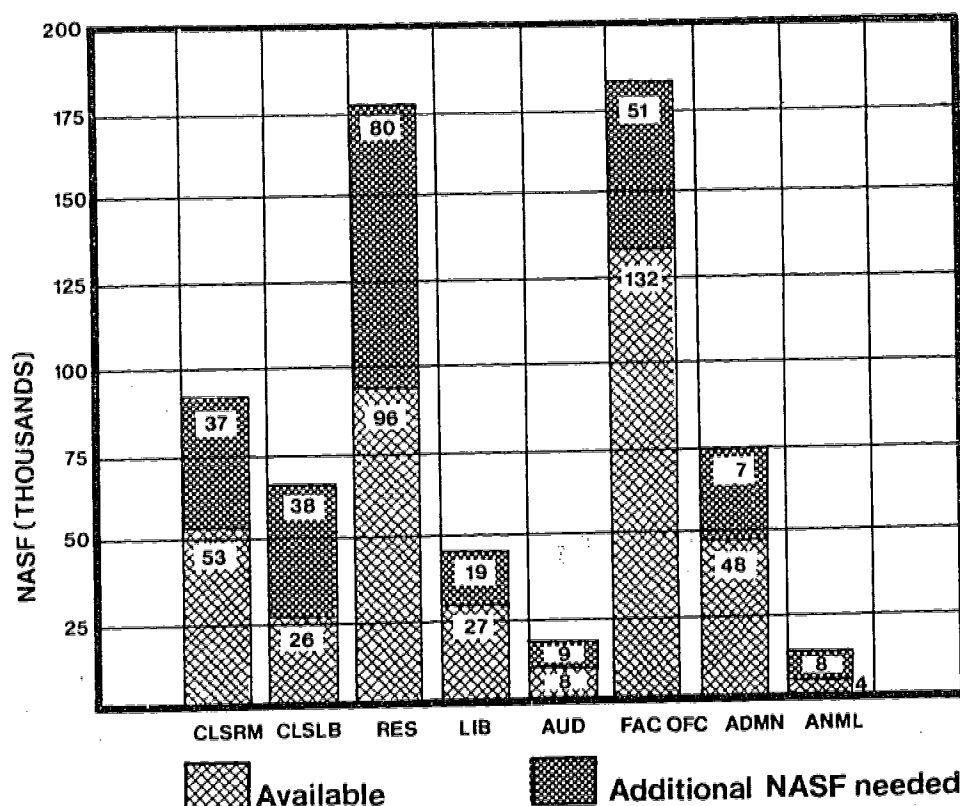
FIGURE 3.VII.C
PUBLIC HEALTH SCHOOLS' PERCEIVED NONCLINICAL
FACILITIES NEEDS AS OF FALL, 1973



Of the total perceived need, 179,000 NASF (67%) was considered to be primarily due to overcrowding. Facilities obsolescence, primarily focused in faculty offices and administrative areas, accounted for 51,000 NASF of the overall need, with the remaining 39,000 NASF divided nearly equally between the problems of poor condition and "missing" from certain respondents' facilities configurations.

The "desired" space distribution profile (obtained by adding "needs" to the 1973 inventory) was little different from that which existed as of the survey date, either in the aggregate, or upon grouping of schools according to our analysis parameters. Using, as a base, the NASF of facilities "allocated" to only those schools reporting a need, Figure 3.VII.D gives insight into the degree to which these needs were felt by the schools involved.

FIGURE 3.VII.D
COMPARISON OF ADDITIONAL NASF NEEDED WITH ALLOCATED NASF OF THOSE
PUBLIC HEALTH SCHOOLS WITH A NEED--FALL, 1973



With regard to library facilities in particular, five of the nine respondents who answered the question concerning "enrollment versus library capacity" indicated either that a "good match" existed between available library space and enrollment, or that additional students (20% or more) would not adversely impact the use of the library. The remaining 4 respondents to the question perceived either "modestly" or "highly" overcrowded conditions in library space, with equal frequency. All of the latter figures, on a percentage basis, held constant as a function of size and control of school.

The survey instrument also attempted to gain an overview of that which the respondents considered the minimum non-facilities need for satisfactory accommodation of their fall, 1973 enrollment. For the 9 schools responding to this question, the needs most often mentioned (7 schools) were those for additional faculty and support staff (306 and 337, respectively), with the second most frequently mentioned need (6 schools) that for an additional \$1.2 million in operating funds (see Table 3.VII.7).

TABLE 3.VII.7
PUBLIC HEALTH SCHOOLS' MINIMUM NON-FACILITIES NEEDS FOR
ACCOMMODATING FALL, 1973 ENROLLMENT

| | NEEDED FTE FACULTY | NEEDED SUPPORT STAFF | OPERATING FUNDS (\$000) | EQUIPMENT FUNDS (\$000) |
|-------------------|--------------------------|----------------------------|-------------------------------|-------------------------------|
| Number of Schools | 7 | 7 | 6 | 4 |
| Total Need | 306 | 337 | 1,240 | 253 |
| Control | | | | |
| Public | 37 | 65 | 400 | 20 |
| Private | 269 | 272 | 840 | 233 |

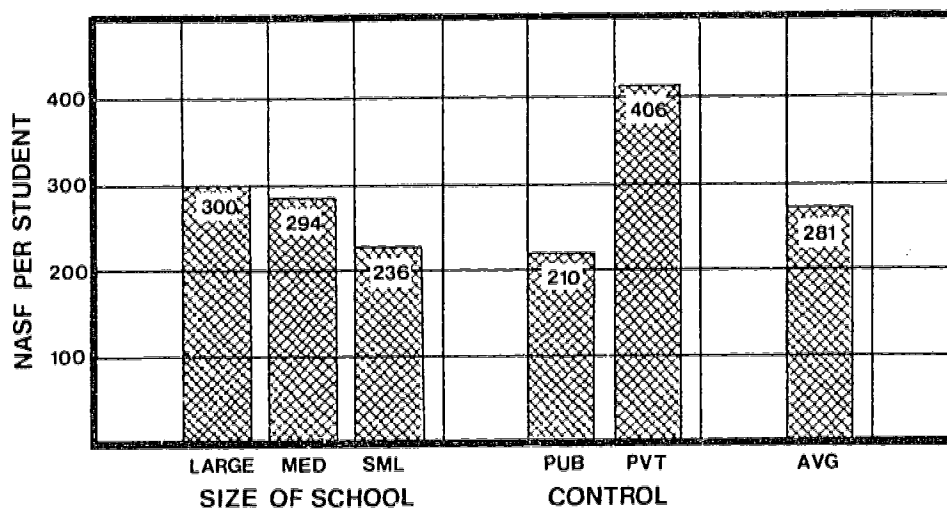
4. Resource Usage

a. Space and Stations Available per Student

Respondents indicated that the average NASF of nonclinical instruction facilities per student was 281, ranging as high as 745 and as low as 121 NASF per student. Space per student tended to vary greatly as a function of control of school, and slightly with size of school, as is apparent from Figure 3.VII.E.

FIGURE 3.VII.E

NASF PER STUDENT BY SIZE AND CONTROL, SCHOOLS OF PUBLIC HEALTH--FALL, 1973



The wide difference between the sectors' figures is due in part to the heavy research orientation of some privately controlled schools, a number of which are highly prestigious. Table 3.VII.8 details the NASF per student for each room-type, as a function of the various grouping parameters used in this analysis.

TABLE 3.VII.8

NASF PER STUDENT BY ROOM-TYPE, SCHOOLS OF PUBLIC HEALTH--FALL, 1973

| | TOTAL | CLASSROOM | CLASS LABORATORY | RESEARCH & RESEARCH TRAINING | LIBRARY | AUDITORIUM | FACULTY OFFICE | ADMIN- ISTRATIVE OFFICE | ANIMAL FACILITIES |
|-------------------|-------|-----------|---------------------|------------------------------------|---------|------------|-------------------|-------------------------------|----------------------|
| TOTAL | 281 | 28 | 14 | 105 | 17 | 6 | 68 | 32 | 14 |
| Size of School | | | | | | | | | |
| Large | 300 | 37 | 15 | 99 | 16 | 5 | 76 | 30 | 21 |
| Medium | 294 | 20 | 15 | 122 | 16 | 7 | 67 | 36 | 11 |
| Small | 236 | 31 | 10 | 80 | 19 | 4 | 62 | 26 | 9 |
| Control | | | | | | | | | |
| Public | 210 | 21 | 13 | 63 | 14 | 1 | 54 | 37 | 7 |
| Private | 406 | 40 | 14 | 177 | 23 | 13 | 93 | 23 | 25 |
| Geographic Locale | | | | | | | | | |
| Innrcity | 318 | 42 | 13 | 114 | 21 | 5 | 75 | 30 | 21 |
| Outercity | 253 | 17 | 14 | 98 | 14 | 6 | 63 | 33 | 8 |

Classroom stations per student averaged 1.34, with a high of 3.33 and a low of .11. Stations per student figures have a tendency to decrease as schools decrease in size, while the private sector reported a somewhat higher "stations per student" average for classrooms than schools of the public sector. Finally, innercity schools exhibited nearly three times the stations per student than did outercity schools, as seen in Table 3.VII.9.

TABLE 3.VII.9
CLASSROOM AND CLASS LABORATORY STATIONS PER STUDENT,
SCHOOLS OF PUBLIC HEALTH--FALL, 1973

| | CLASSROOM STATIONS | CLASSROOM STATIONS PER STUDENT | CLASS LABORATORY STATIONS | CLASS LABORATORY STATIONS PER STUDENT |
|-------------------|-----------------------|--------------------------------------|---------------------------------|--|
| TOTAL | 4,360 | 1.34 | 1,060 | .34 |
| Size of School | | | | |
| Large | 1,658 | 1.78 | 361 | .39 |
| Medium | 1,708 | 1.13 | 498 | .33 |
| Small | 994 | 1.24 | 201 | .32 |
| Control | | | | |
| Public | 2,318 | 1.12 | 608 | .32 |
| Private | 2,042 | 1.71 | 452 | .38 |
| Geographic Locale | | | | |
| Innercity | 2,896 | 2.02 | 465 | .37 |
| Outercity | 1,464 | .80 | 595 | .33 |

Class laboratories, although exhibiting the above patterns, tended to show them very weakly, and in fact form nearly a constant ratio in comparison with the fluctuations observed in classroom stations per student.

b. Usage of Classrooms

One of the major differences between schools of public health and the other respondents to this survey is the nature of their instruction in classroom and class laboratory facilities. While for basic biological sciences instruction in classrooms of other health professions schools,

80% is the typical figure given, schools of public health report 13%: and while the amount of classroom usage for pursuits other than the biological or clinical sciences is typically 0 - 10% at other health professions schools, for public health it is 76%.

The average classroom was used 724 hours during the academic year, with schools in the public sector reporting three times the usage, per room, as schools in the private sector. Publicly controlled schools averaged 1,062 hours of usage per classroom (per year), while schools in the private sector averaged only 358 hours per year (see Table 3.VII.10).

TABLE 3.VII.10
USAGE OF CLASSROOMS, SCHOOLS OF PUBLIC HEALTH--FALL, 1973

| | TOTAL HOURS* OF USAGE PER YEAR (000) | NUMBER OF ROOMS | MEAN USAGE PER YEAR (HOURS) |
|-------------------|--|-----------------------|-----------------------------------|
| TOTAL | 109 | 150 | 724 |
| Size of School | | | |
| Large | 36 | 49 | 739 |
| Medium | 39 | 59 | 664 |
| Small | 33 | 42 | 789 |
| Control | | | |
| Public | 83 | 78 | 1,062 |
| Private | 26 | 72 | 358 |
| Geographic Locale | | | |
| Innecity | 57 | 81 | 699 |
| Outercity | 52 | 69 | 753 |

* Sums for each group may not equal total due to round-off error.

Classroom usage tended to increase only slightly with increasing room size, and may be considered invariant as a function of size of room. This constancy appears to hold for each of the various groupings used in the analysis -- and even the large difference between public and private schools' usage of classrooms is maintained for each room size.

Before discussing the results of our room-use and student station utilization computations, we recall the caveats of PART 1 in which we noted that our purpose in such computations was that of comparative analysis. Added to the fact that the public health curriculum includes a significant amount of field training (thereby depressing the utilization percentages), our method substitutes 2,080 hours for the academic year reported by respondents. Since 2,080 hours (40 hours x 52 weeks) is greater than the typical academic year, the result is a further lowering of the utilization rates. This occurs since our utilization formula is given, in essence, by:

$$\frac{\text{resource hours used}}{\text{resource hours available}} \times 100 = \% \text{ utilization,}$$

whether the resource being analyzed is rooms or student stations. "Hours available" would ordinarily have been respondents' reported "academic year", but the 2,080 hour substitution is an increase in the denominator of the formula, and it thus depresses the results (see Appendix G for the computational details of the method).

Room utilization, the percentage of the "available" hours that the rooms are used during the academic year, averaged 32% for the classrooms of the 11 respondent schools of public health for whom room-use data were complete. Public schools were as much above this mean figure as private schools are below it, reporting 48% and 17% room utilization, respectively (a result anticipated from the analysis of average hours of room-use per year).

Classroom student station utilization (occupancy) figures averaged 19%, ranging from 7 to 45%. Schools in the public sector showed equal station utilization to those in the private sector. Recalling the much greater "mean hours per year" usage figure for publicly-controlled classrooms, the implication is that schools of the public sector are utilizing smaller-group teaching methods (also inferred from a 4:1 student to teacher ratio) not in concert with the room-sizes (number of stations) which existed in their fall, 1973 inventory (see Table 3.VII.11).

TABLE 3.VII.11
UTILIZATION OF CLASSROOMS AND CLASSROOM STUDENT
STATIONS, SCHOOLS OF PUBLIC HEALTH--FALL, 1973

| | ROOM UTILIZATION (%) | STUDENT STATION UTILIZATION (%) |
|-------------------|----------------------------|--|
| TOTAL | 32 | 19 |
| Size of School | | |
| Large | 36 | 13 |
| Medium | 32 | 20 |
| Small | 26 | 29 |
| Control | | |
| Public | 48 | 19 |
| Private | 17 | 19 |
| Geographic Locale | | |
| Innecity | 28 | 14 |
| Outercity | 36 | 29 |

NOTE: While station utilization (occupancy) can theoretically be no greater than room utilization at a particular school, occasionally, as above (small schools, private), a group of schools exhibits this anomaly. It occurs here because the eleven schools used in the room-use computations were not the same used in the computations for station use; and with the small sample sizes involved in a given grouping, each school has a marked impact on the group mean.

As we group the schools by size category, we find that station utilization for classrooms tends to increase with decreasing school size, from 13% (large schools) to 29% for the small schools. Since only the large schools typically reported the larger sized classrooms, the major portion of the hypothesized mismatches between room size and teaching group size may lie with these larger schools. This hypothesis is strengthened by virtue of the opposite pattern of room-utilization: it is highest at the larger schools, an expected result given small group teaching--and the resulting requirement to more heavily utilize the existing large rooms.

c. Class Laboratory Utilization

Given the nature of the typical public health curriculum, class laboratories were used to a negligible degree for clinical sciences instruction, with respondents indicating an equal division in space usage between "basic sciences" and "other" purposes. The average room, whether general or special purpose, was used upward of 750 hours per year.

TABLE 3.VII.12
CLASS LABORATORY USAGE, SCHOOLS OF PUBLIC
HEALTH--FALL, 1973

| | NUMBER OF CLASS LABORATORIES | TOTAL HOURS USAGE PER YEAR (000) | MEAN HOURS OF USAGE PER YEAR | ROOM UTILIZATION (%) |
|-------------------|------------------------------------|--|------------------------------------|----------------------------|
| TOTAL | 85 | 64 | 753 | 36 |
| Size of School | | | | |
| Large | 23 | 15 | 652 | 32 |
| Medium | 43 | 31 | 721 | 35 |
| Small | 19 | 18 | 947 | 45 |
| Control | | | | |
| Public | 56 | 46 | 821 | 40 |
| Private | 29 | 18 | 621 | 29 |
| Geographic Locale | | | | |
| Innercity | 35 | 26 | 743 | 36 |
| Outercity | 50 | 38 | 760 | 36 |

As may be seen in Table 3.VII.12, percent room utilization varies strongly with school size and control. However, in the case of school size, the pattern of differences is the converse of that exhibited by classroom utilization.

Class laboratory occupancy (station utilization) figures will not be dealt with herein, due to the great impact (given our small sample sizes) of four large data errors which had not been resolved as of this writing. It can only be stated with some certainty that, even with the aggregate utilization rates masked as they are, resolution of the errors would have resulted in figures closely approaching the class laboratory room-use figures described above.

d. Faculty Offices

The total NASF of faculty office space per faculty member was approximately 196. Schools of the public and private sectors reported being nearly equidistant from the mean on this measure, with the private sector reporting at the lower end of the scale. The relationships exhibited between "size" and locale of school and NASF per faculty member did not follow a specific pattern, although differences among these groups were quite distinct (see Table 3.VII.13).

TABLE 3.VII.13
NASF PER FACULTY, SCHOOLS OF PUBLIC HEALTH--FALL, 1973

| | SCHOOLS REPORTING FACULTY | NASF OF FACULTY OFFICE SPACE (000) | FTE FACULTY | NASF PER FTE FACULTY MEMBER |
|-------------------|---------------------------------|--|----------------|--------------------------------------|
| TOTAL | 11 | 203 | 1,038 | 196 |
| Size of School | | | | |
| Large | 2 | 71 | 446 | 159 |
| Medium | 4 | 82 | 314 | 261 |
| Small | 5 | 50 | 278 | 179 |
| Control | | | | |
| Public | 6 | 92 | 431 | 213 |
| Private | 5 | 111 | 607 | 182 |
| Geographic Locale | | | | |
| Innecity | 5 | 88 | 516 | 171 |
| Outercity | 6 | 115 | 522 | 220 |

e. Animal Facilities

The 10 schools of public health responding to the relevant questions indicated that 36% of their animal facilities were used for instructional purposes and the remainder (64%) were used for research. The larger schools in the public sector indicated a higher than average instructional usage (63%), while the smaller schools were much more research oriented in their animal facilities usage (86%). While it is apparent that it is

subject-matter variables which are causing much of the variation in this and other data, such variables were outside the scope of the current effort.

f. Joint-Utilization of Classrooms and Class Laboratories

While schools of public health indicated a large availability of joint-use classroom facilities (56 rooms), it is found that their usage of such space was but a small portion of their overall usage of corresponding "allocated" facilities. The ratio of "joint-use" room hours to "allocated" room-hours was, for the subpopulation under analysis, under 8% for classroom-type instructional space. Joint-usage of class laboratories was negligible. Public health school-controlled class laboratories were not used by other students, and only negligible use of controlled classrooms (90 hours per year) was reported.

C. ONGOING CONSTRUCTION AND REMODELING, AND THE POST CONSTRUCTION INVENTORY

One construction program, and one remodeling program, were reported by the respondent schools of public health, thereby precluding analysis of the type performed elsewhere in this report. In brief, the reported programs involved \$2.7 million for new construction, and \$19,000 for remodeling, both sums incurred by publicly controlled schools. Funds were obtained from state and local sources. Representing 34,000 GSF of new facilities to be controlled by the respondent involved, the majority of the new construction had as its purpose the replacement of obsolete research and research training facilities. Thus, the "perceived need as of fall, 1973", reported previously, would remain virtually unchanged, except for a major reduction in the need for research and research training space. Referring back to Figure 3.VII.D, the 80,000 NASF need for research and research training space would be reduced to 69,000; while the 37,000 NASF need for additional classroom facilities would reduce to 34,000 due to the effect of the remodeling program.

It should also be noted that as a function of the reported construction, enrollment was expected to grow only slightly -- from 3,254 to 3,271 students following completion of construction.

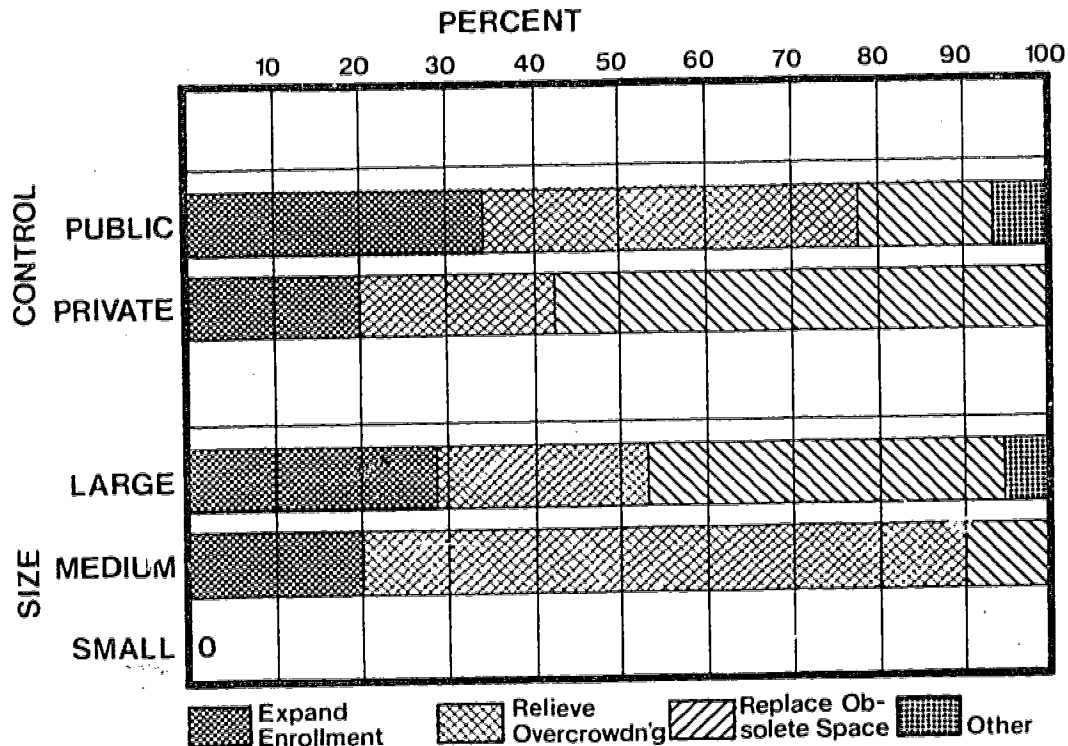
D. THE 1983 LOOK AHEAD

Seven major construction or remodeling programs are planned for the coming decade. Four of the 12 respondents indicated plans for the construction of 280,000 NASF of facilities by 1983, exclusive of ongoing construction. These programs range in size from 15,000 to 134,000 NASF. Just over half of this new construction would take place at three schools in the public sector; with the remaining program, the largest, taking place at a private school.

Planned remodeling was reported to a much greater extent (610,000 NASF) than new construction. Nearly all of this activity would take place at a single publicly controlled school given that "funds became available".

The reported purposes of the construction planned by respondents between the end of ongoing construction efforts and the fall, 1983, indicate that overcrowding and obsolescence represented the perceived priority needs: large schools concentrated on relieving obsolescence; while medium sized schools planned to concentrate on their perceived overcrowding problem. Schools in the public sector indicated that approximately one-third of the new construction would be for enrollment expansion, an eventuality supported by their enrollment projections for academic year 1983-84 (see Figure 3.VII.F).

FIGURE 3.VII.F
PUBLIC HEALTH SCHOOLS' PURPOSES OF PLANNED CONSTRUCTION THROUGH 1983



Between the survey date and the 1983 academic year, it is expected that the public health schools will experience a vigorous enrollment growth of 40%: from a head count of 3739 to a head count of 5235. Schools in the public sector expect to exhibit a 49% growth rate over the next decade; while the private schools predict a 24% increase over current enrollment levels. Most of the growth (on a percentage basis) will occur in the West, whose 4 schools expect to increase enrollment by 78% over that which existed as of the survey date.

Table 3.VII.14 summarizes the relationship between NASF and enrollment as they are expected to change between the survey date and academic year 1983-84. Since the survey instrument did not distinguish among room-types, the figures include "on-site patient care" and "other" facilities for both the 1973 and 1983 fig-

ures. Recalling past discussion inferring small group teaching in "large-group oriented" facilities, it is interesting to note that for 1983, NASF per student decreases in nearly every category.

TABLE 3.VII.14
CHANGES IN NASF PER STUDENT, SCHOOLS OF PUBLIC HEALTH--1973-1983

| | 1973 | | | 1983 | | |
|-------------------|---------------|--------------------------------------|------------------------|---------------|--------------------------------------|------------------------|
| | NASF (000) | NUMBER OF STUDENTS (HEADCOUNT) | NASF PER STUDENT | NASF (000) | NUMBER OF STUDENTS (HEADCOUNT) | NASF PER STUDENT |
| TOTAL | 999 | 3,739 | 267 | 1,099 | 5,235 | 210 |
| Size of School | | | | | | |
| Large | 319 | 1,140 | 280 | 389 | 1,526 | 255 |
| Medium | 475 | 1,644 | 289 | 505 | 2,385 | 212 |
| Small | 205 | 955 | 215 | 205 | 1,324 | 155 |
| Control | | | | | | |
| Public | 461 | 2,246 | 205 | 574 | 3,371 | 170 |
| Private | 538 | 1,493 | 360 | 525 | 1,864 | 282 |
| Geographic Locale | | | | | | |
| Innercity | 505 | 1,845 | 274 | 492 | 2,412 | 204 |
| Outercity | 494 | 1,894 | 261 | 607 | 2,823 | 215 |
| Census Region | | | | | | |
| Northeast | 381 | 969 | 393 | 381 | 1,062 | 359 |
| Northcentral | 48 | 356 | 135 | 85 | 372 | 228 |
| South | 354 | 1,335 | 265 | 424 | 1,876 | 226 |
| West | 216 | 1,079 | 200 | 209 | 1,925 | 109 |

VIII. SCHOOLS OF VETERINARY MEDICINE

A. INTRODUCTION

As in the case of most of the other professions surveyed, schools of veterinary medicine also typically offer a 4-year course of study, following undergraduate education, with the first two years involved primarily with basic sciences instruction, and the last two years involved with clinical instruction. Occasionally, a collapsed 3-year program is offered (two schools of veterinary medicine offered such a program as of the survey date). Veterinary medical education is similar to human medicine to the extent that human and animal physiology and biochemistry are similar; and animals, as well as humans, are treated on both inpatient and outpatient bases. As might be expected, the larger range of sizes germane to animals implies larger clinical facilities on a "patient-by-patient" basis: while this study does not concern itself with the amount of square footage devoted to patient care areas, the room type "animal facilities" may, in this context, be expected to represent a much larger proportion of a given educational facility's configuration than for schools of any other profession.

Due to the fact that, according to those knowledgeable in the field, there is no particular trend toward earlier introduction of clinical teaching experience into the veterinary medical schools' curricula, no curriculum type variable was applied to these schools. The respondent schools were, however, grouped according to size category. Based on the frequency diagram of FTE enrollment sizes, the enrollment ranges applied to the "small", "medium", and "large" size groups were 0-200 students, 201-350 students, and above 350 students, respectively. The following table summarizes the manner in which we arrived at a response rate of 85% for schools of veterinary medicine; and details the parameterization of those schools to be used in the analytic review which follows.

TABLE 3.VIII.1
DERIVATION OF RESPONSE RATE FOR SCHOOLS OF VETERINARY MEDICINE

| SCHOOLS OF: <u>VET. MED.</u> | NUMBER OF SCHOOLS IN UNIVERSE | NON-RESPONDENT | | | RESPON- DENTS (NO. 1 - NO.2) | NEW SCHOOLS RESPON- DING | ESTAB- LISHED RESPON- DENTS (#3-#4) | NON-SUB- STANTIVE FORMS ESTAB. SCHOOLS | RE- SPONSES USED IN ANALYSIS (#5-#6) | ANALYZED SCHOOLS AS A % OF ESTAB- LISHED UNIVERSE (7/(1+2a-4)) |
|---------------------------------|---|----------------|-----------------------------|------------------------|---------------------------------------|-----------------------------------|---|--|--|--|
| | | NEW SCHOOLS | ESTAB- LISHED SCHOOLS | TOTAL (#2a+ #2b) | | | | | | |
| | #1 | #2a | #2b | #2c | #3 | #4 | #5 | #6 | #7 | #8 |
| TOTAL | 20 | 0 | 1 | 1 | 19 | 2 | 17 | 0 | 17 | 94 |
| Large | 8 | 0 | 0 | 0 | 8 | 0 | 8 | 0 | 8 | 100 |
| Medium | 8 | 0 | 1 | 1 | 7 | 0 | 7 | 0 | 7 | 88 |
| Small | 4 | 0 | 0 | 0 | 4 | 2 | 2 | 0 | 2 | 100 |
| Public | 18 | 0 | 1 | 1 | 17 | 2 | 15 | 0 | 15 | 94 |
| Private | 2 | 0 | 0 | 0 | 2 | 0 | 2 | 0 | 2 | 100 |
| Innercity | | | | | | | | | 2 | |
| Outercity | | | | | | | | | 11 | |
| Suburban | | | | | | | | | 3 | |
| Rural | | | | | | | | | 1 | |
| Northeast | 2 | 0 | 1 | 1 | 1 | 0 | 1 | 0 | 1 | 50 |
| Northcentral | 8 | 0 | 0 | 0 | 8 | 0 | 8 | 0 | 8 | 100 |
| South | 7 | 0 | 0 | 0 | 7 | 2 | 5 | 0 | 5 | 100 |
| West | 3 | 0 | 0 | 0 | 3 | 0 | 3 | 0 | 3 | 100 |

The two new schools of veterinary medicine, in responding to the survey, indicated a combined NASF of 10,000. One school was already accommodating an FTE enrollment of 36. While construction plans were not yet sufficiently formulated to give an accurate indication of their nature, it was reported by one of the two schools that enrollment was expected to grow to approximately 320 students.

B. THE FALL, 1973 INVENTORY OF NONCLINICAL INSTRUCTION FACILITIES

1. Description

The 17 responding schools of veterinary medicine reported 3.4 million GSF of allocated nonclinical instruction facilities, over 98% of which were owned or leased on a very long-term basis. The 3.4 million GSF represented Net Assignable Square Footage (NASF) of 2.39 million, 506,000 of which were reported as "on-site patient care" or "other" facilities, the remainder being classroom, laboratory, library, and so on. Since "other" facilities represented such a wide diversity among room-types, and since "on-site patient care facilities" was occasionally misconstrued to mean "on-campus" rather than "in-building", these two categories have been excluded from the analysis for comparability among schools. Table 3.VIII.2 derives the net figures for the NASF used in the analysis.

TABLE 3.VIII.2
INVENTORY OF NONCLINICAL FACILITIES, SCHOOLS
OF VETERINARY MEDICINE--FALL, 1973

| | NUMBER OF SCHOOLS (1) | TOTAL NASF (000) (2) | NASF (000) "ON-SITE PATIENT CARE" AND "OTHER" (3) | NASF (000) USED IN ANALYSIS ((2)-(3)) (4) | AVERAGE NASF (000) PER SCHOOL ((4)/(1)) (5) |
|-------------------|--------------------------------|-------------------------------|--|---|---|
| TOTAL | 17 | 2,391 | 506 | 1,885 | 111 |
| Size of School | | | | | |
| Large | 8 | 1,363 | 199 | 1,164 | 146 |
| Medium | 8 | 988 | 296 | 692 | 87 |
| Small | 1 | 40 | 11 | 29 | 29 |
| Control | | | | | |
| Public | 15 | 2,104 | 490 | 1,614 | 108 |
| Private | 2 | 287 | 16 | 271 | 136 |
| Geographic Locale | | | | | |
| Innercity | 2 | 460 | 62 | 398 | 199 |
| Outercity | 11 | 1,423 | 363 | 1,060 | 96 |
| Suburban | 3 | 468 | 70 | 398 | 133 |
| Rural | 1 | 40 | 11 | 29 | 29 |
| Census Region | | | | | |
| Northeast | 1 | 247 | 5 | 242 | 242 |
| Northcentral | 8 | 942 | 226 | 716 | 89 |
| South | 5 | 648 | 125 | 523 | 105 |
| West | 3 | 554 | 150 | 404 | 135 |

The largest reported inventory was 242,000 NASF, and the mean configuration size was 111,000 NASF. Configuration size varied with "control" and "locale": while the "average" publicly controlled school reported 108 thousand NASF, its counterpart in the private sector reported 136 thousand NASF of "allocated" space; and the two respondents from innercity locales reported an average of 199 thousand NASF as compared to an overall average of 99 thousand in the other locales.

As shown in the following table, the nonclinical instruction facilities were heavily weighted toward research and research training space and animal facilities, with over half the reported space in these areas. There was more than three times as much class laboratory space as classroom space reported.

TABLE 3.VIII.3
NONCLINICAL INSTRUCTION SPACE DISTRIBUTION PROFILE,
SCHOOLS OF VETERINARY MEDICINE--FALL, 1973

| ROOM TYPE | NASF (000) | PERCENTAGE (ROUNDED) |
|--------------------------------|------------|----------------------|
| Classrooms | 105 | 5.6 |
| Class Laboratories | 345 | 18.3 |
| Research and Research Training | 653 | 34.6 |
| Library | 53 | 2.8 |
| Auditoria | 13 | .7 |
| Faculty Offices | 170 | 9.0 |
| Administrative Areas | 97 | 5.1 |
| Animal Facilities | 451 | 23.9 |
| TOTAL | 1,885 | 100.0 |

This room-type profile remains relatively consistent when the schools are grouped by size, control, locale and census region, leading to the hypothesis that there was a somewhat "fixed" facilities configuration for schools of veterinary medicine.

The NASF figures reported by the schools are displayed on a per room and student station basis in Table 3.VIII.3. You will note that the reported NASF per student station (519 NASF) is less than the NASF per room (293 NASF). This likely indicates that a portion of the research space in schools of veterinary medicine is used exclusively for research purposes, with no student involvement.

TABLE 3.VIII.4
NASF PER ROOM AND STUDENT STATION,
SCHOOLS OF VETERINARY MEDICINE--FALL, 1973

| | NUMBER OF STUDENT STATIONS | NUMBER OF NASF (000) | NASF/STATION | NUMBER OF ROOMS | NASF/ROOM |
|------------------|----------------------------------|-------------------------|--------------|-----------------------|-----------|
| Classroom | 6,342 | 105 | 17 | 79 | 1,329 |
| Class Laboratory | 6,058 | 345 | 57 | 290 | 1,194 |
| Research | 985 | 653 | 519 | 2,226 | 293 |
| Library | 1,157 | 53 | 48 | -- | --- |
| Auditorium | 1,324 | 13 | 10 | 5 | 2,600 |
| Faculty Office | -- | 170 | --- | 1,953 | 87 |

Schools of veterinary medicine tended to use small class laboratories and large classrooms as seen in Figure 3.VIII.A. Since 11 of the 13 schools reporting room size data were in the public sector, this trend remains consistent in that sector. The private sector's 2 schools, however, while also exhibiting a propensity to use the large classrooms, also reported a preponderance of large class laboratories (see Figure 3.VIII.B) in direct contrast to the general rule.

FIGURE 3.VIII.A
DISTRIBUTION PROFILE OF CLASSROOM AND CLASS LABORATORY
CAPACITIES, PUBLIC SCHOOLS OF VETERINARY MEDICINE

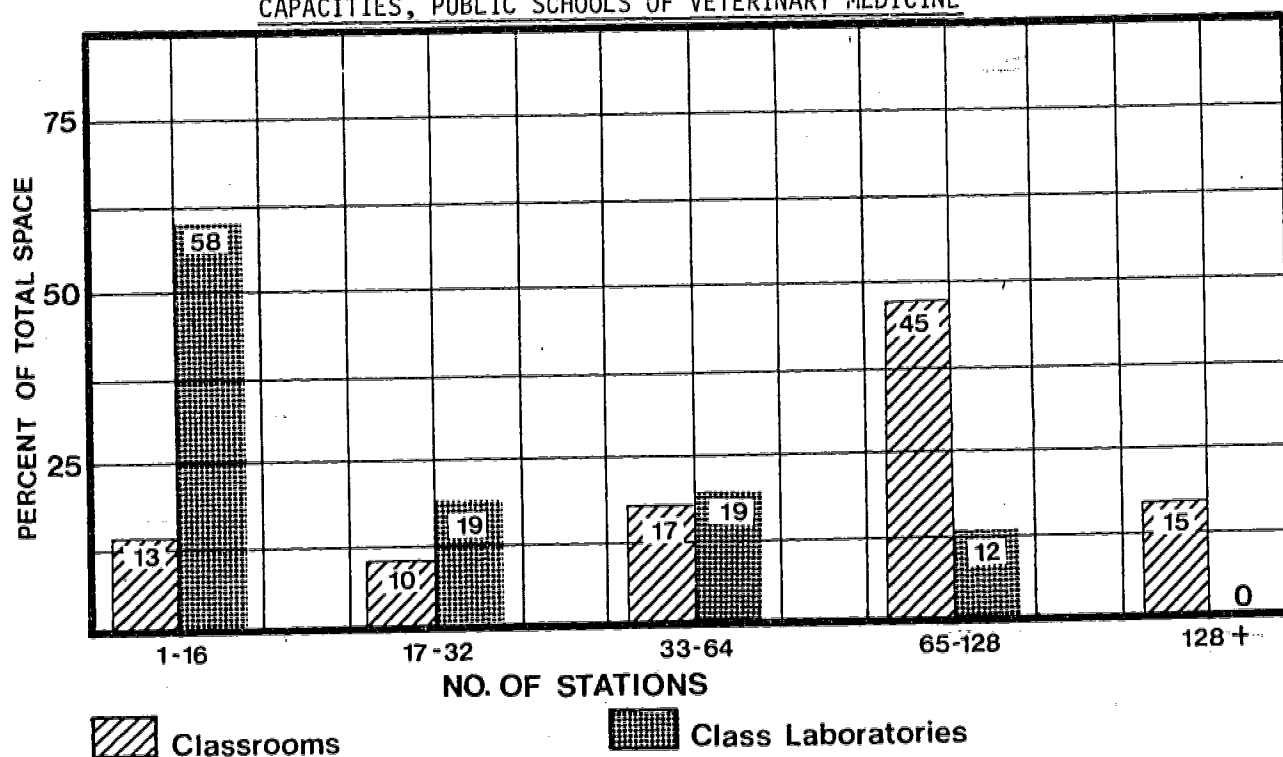
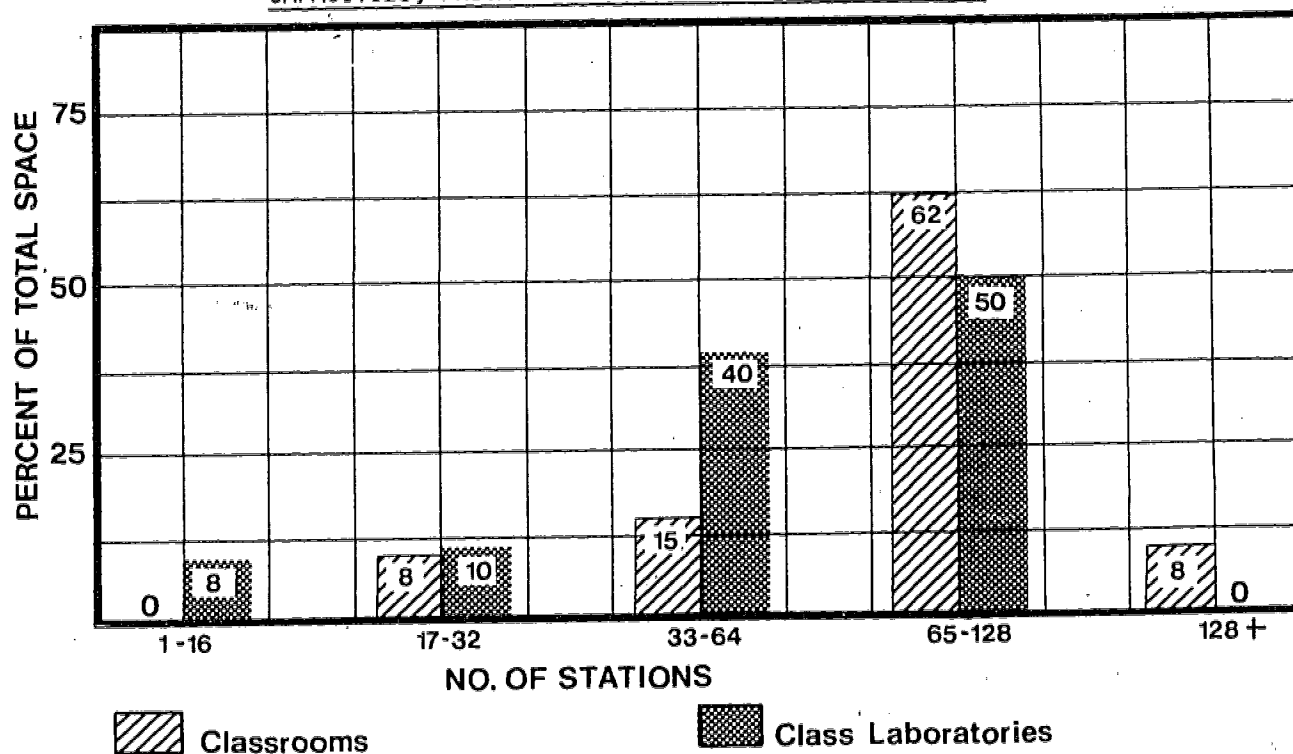


FIGURE 3.VIII.B
DISTRIBUTION PROFILE OF CLASSROOM AND CLASS LABORATORY
CAPACITIES, PRIVATE SCHOOLS OF VETERINARY MEDICINE



2. The Student Population Using the Fall, 1973 Inventory

Of the 5,999 students enrolled at the 17 responding schools of veterinary medicine, most were attending on a full-time basis since the FTE count was 5,877. The vast majority (91%) of the students were reported by the publicly controlled schools. Just over 2/3 of the student population were located in outer-city and suburban locales.

TABLE 3.VIII.5
ENROLLMENT AT SCHOOLS OF VETERINARY MEDICINE--FALL, 1973

| | NUMBER OF SCHOOLS | NUMBER OF UNDERGRAD- UATES (FTE) | NUMBER OF GRADUATE STUDENTS (FTE) | TOTAL FTE ENROLLMENT | AVERAGE FTE PER SCHOOL |
|-------------------|-------------------------|--|--|-------------------------|------------------------------|
| TOTAL | 17 | 5,268 | 609 | 5,877 | 346 |
| Size of School | | | | | |
| Large | 8 | 2,986 | 310 | 3,296 | 412 |
| Medium | 8 | 2,145 | 283 | 2,428 | 304 |
| Small | 1 | 137 | 16 | 153 | 153 |
| Control | | | | | |
| Public | 15 | 4,758 | 593 | 5,351 | 357 |
| Private | 2 | 510 | 16 | 526 | 263 |
| Geographic Locale | | | | | |
| Innecity | 2 | 644 | 56 | 700 | 350 |
| Outercity | 11 | 3,533 | 357 | 3,890 | 354 |
| Suburban | 3 | 954 | 180 | 1,134 | 378 |
| Rural | 1 | 137 | 16 | 153 | 153 |
| Census Region | | | | | |
| Northeast | 1 | 373 | 0 | 373 | 373 |
| Northcentral | 8 | 2,541 | 313 | 2,854 | 357 |
| South | 5 | 1,428 | 141 | 1,569 | 314 |
| West | 3 | 926 | 155 | 1,081 | 360 |

3. Adequacy of the Inventory

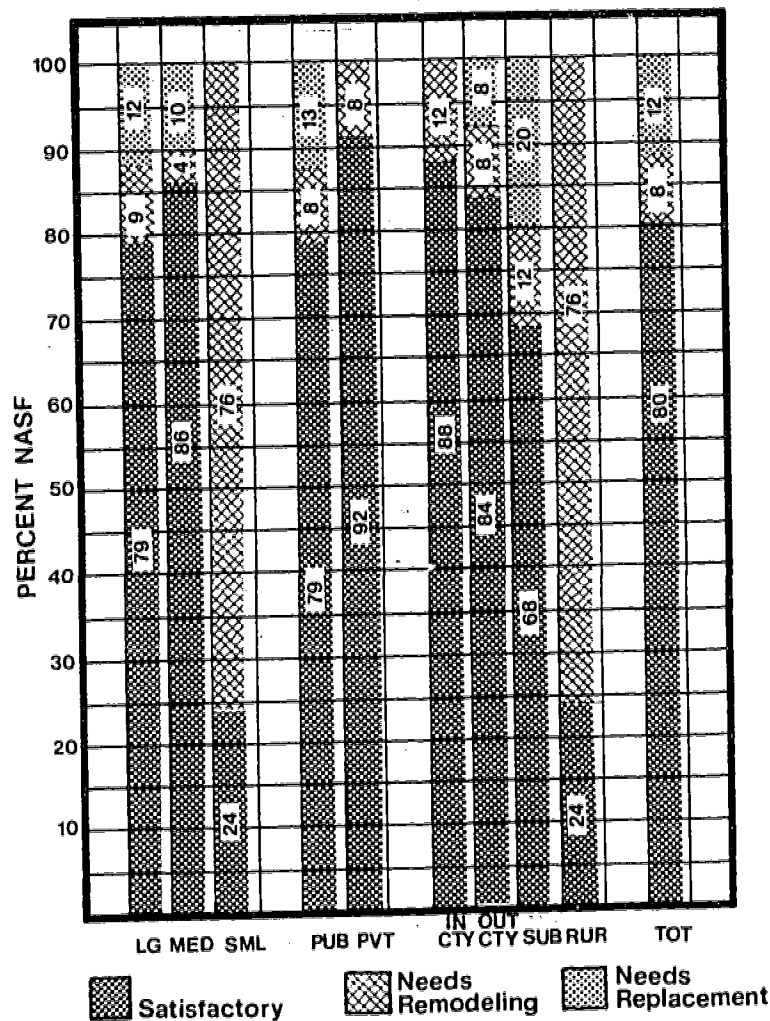
a. Condition of Space

Just over 80% of the 1.86 million NASF of veterinary medicine schools' non-clinical facilities are reported to be "satisfactory for program purposes".

Of the remaining 20% (368,000 NASF) over 210,000 were perceived as needing replacement (prior to the effects of current construction programs) and 150,000 could be brought to a satisfactory state through remodeling.

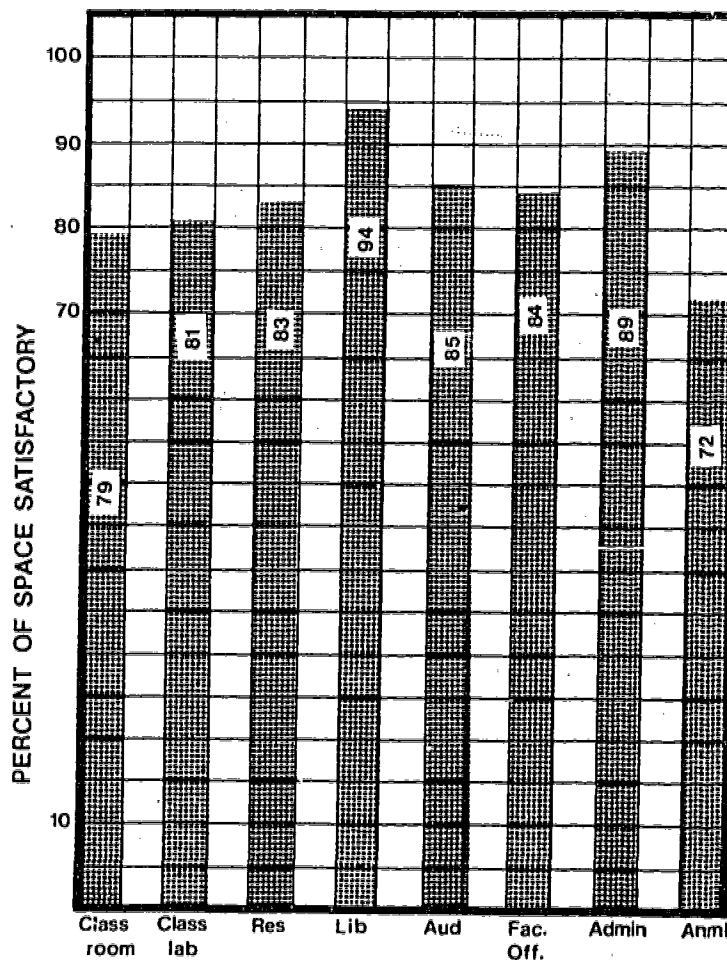
When the respondent population was divided according to "Locale of School" the portion of space reported as "Unsatisfactory" was largest for suburban and rural schools (35%). Innercity and outercity schools reported only 15% of their space as being unsatisfactory. The space considered "unsatisfactory" by the suburban and rural schools is split almost evenly between "needing remodeling" and "needing replacement".

FIGURE 3.VIII.C
CONDITION OF SPACE IN SCHOOLS OF VETERINARY MEDICINE--FALL, 1973



Perhaps of major significance to the schools of veterinary medicine is the room type "profile" of satisfactory space. As is seen in Figure 3.VIII.D, animal facilities were classified as only 72% satisfactory.

FIGURE 3.VIII.D
VETERINARY MEDICINE SCHOOLS' PROFILE OF SATISFACTORY SPACE--FALL, 1973

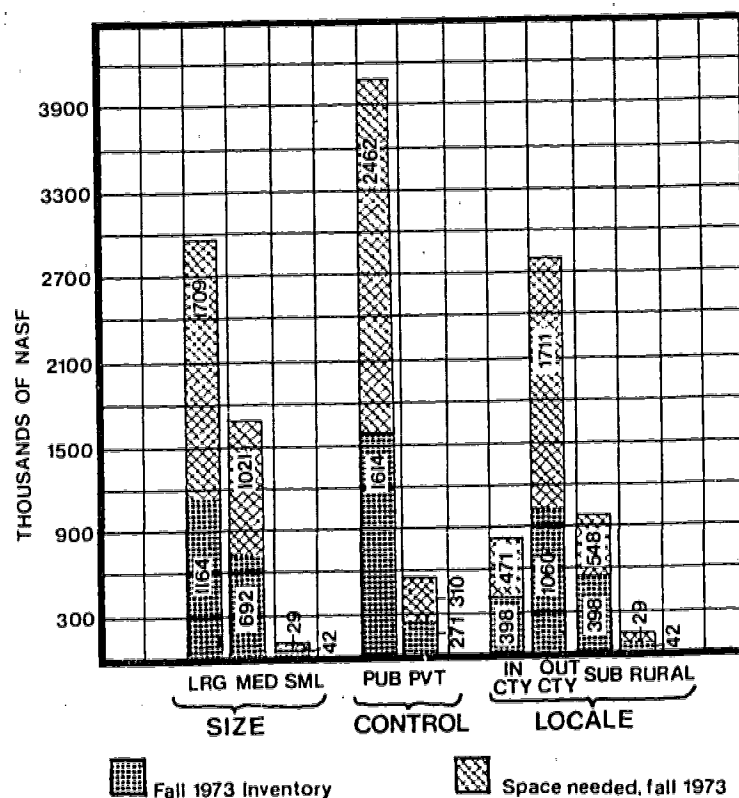


b. Need for Facilities as of Fall, 1973

In all, schools of veterinary medicine perceived a need for 890,000 new NASF. This need is nearly 47% when expressed as a portion of the aggregate fall, 1973 inventory. Need was not at all a function of school en-

rollment size but did differ greatly between public (53%) and private (14%). Outercity schools similarly seemed to feel a large space restriction (61%) compared to schools of the other locales (particularly inner-city, whose perceived 18% need is consistent with the relatively large amount of space reported by those schools). Schools in the north central census region, comprising 47% of the respondent population (on a number of schools basis), felt a need for a 77% space addition compared to 52% for the three western schools and less than 20% for the remaining 6 schools. The numbers of NASF involved in the above relative needs are displayed in Figure 3.VIII.E.

FIGURE 3.VIII.E
PERCEIVED SPACE NEEDS FOR SCHOOLS OF VETERINARY MEDICINE--FALL, 1973



Half of the space needed was to relieve overcrowding. This percentage was relatively stable over all the major room types.

When these needs are analyzed on a per-student basis, the changes in certain room-types become quite significant. Thus, for example, it is desired that animal and classroom facilities be increased by 2/3; and that class laboratory space per student be increased by 53%. Although small proportions of the overall space configuration, library and auditoria were reported to have the greatest need in proportion to existing space (100% and 200%, respectively).

Sixteen of the 17 responding schools of veterinary medicine reported various "minimum" needs (as constrained by the survey instrument) for satisfactory accommodation of their Fall, 1973 enrollment. Most often mentioned were the needs for additional faculty (13 schools), support staff (15 schools), and operating funds (13 schools) as shown in Table 3.VIII.6.

TABLE 3.VIII.6
VETERINARY MEDICINE SCHOOLS' MINIMUM NON-FACILITIES NEEDS
FOR ACCOMMODATING FALL, 1973 ENROLLMENT

| | FACULTY | SUPPORT STAFF | OPERATING FUNDS (\$000) |
|---------------------------------------|---------|------------------|-------------------------------|
| Total | 271 | 424 | 4,908 |
| Number of Schools Reporting a Need | 13 | 15 | 13 |
| Mean Need Reported | 21 | 28 | 378 |
| Size of School | | | |
| Large | 192 | 283 | 2,598 |
| Medium | 79 | 135 | 1,810 |
| Small | 0 | 6 | 500 |
| Control | | | |
| Public | 259 | 403 | 3,608 |
| Private | 12 | 21 | 1,300 |
| Geographic Locale | | | |
| Innecity | 25 | 35 | 800 |
| Outercity | 190 | 315 | 3,123 |
| Suburban | 56 | 68 | 485 |
| Rural | 0 | 6 | 500 |

c. Library Facilities

Only one of the 17 schools of veterinary medicine reported that any enrollment increase could be accommodated with the library facilities available as of Fall, 1973. In fact, 65% (11) of the respondents reported overcrowding to at least some degree, 4 schools to a high degree. Notably, library square footage per student station was reported to be among the lowest for all eight professions surveyed.

4. Resource Usage

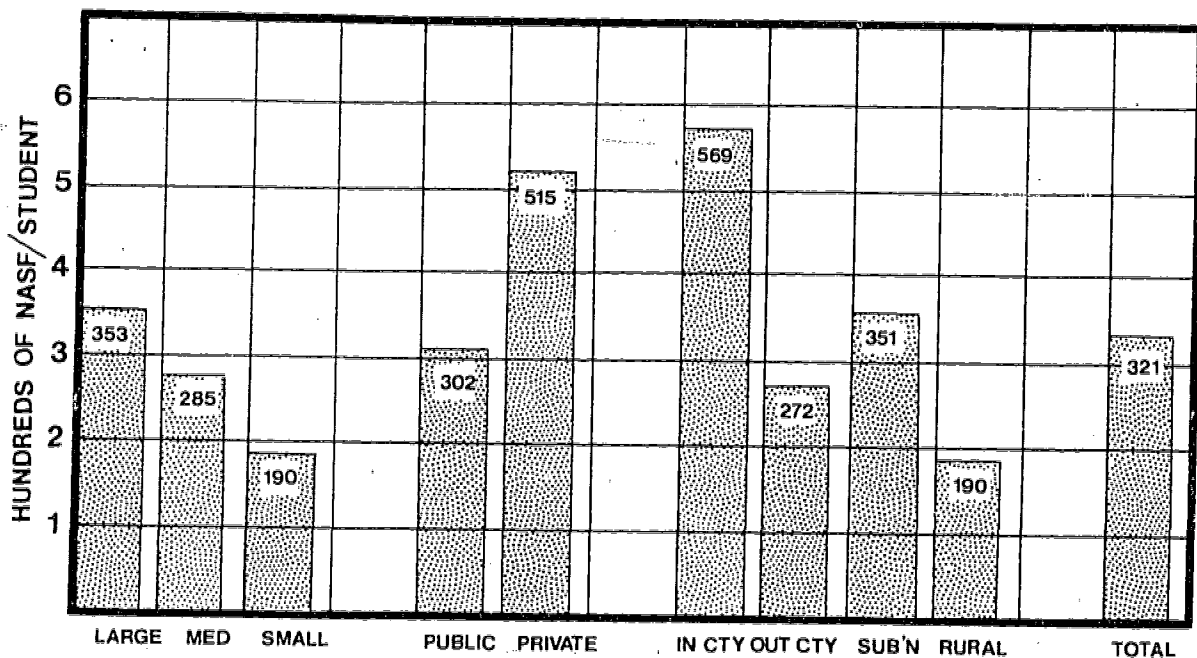
a. Space and Stations Available per Student

Respondents indicated an average NASF per student figure of 321, ranging as high as 649. Space-per student tends to decrease as "size" of school

decreases, with the schools in the "large" category reporting an average of 353 NASF per student, and the "small" schools reporting an average of 190 NASF per student.

In the aggregate, schools in the private sector reported nearly 70% more square footage per student (515) than schools in the public sector (302). The pattern, in other professions, of "cramped quarters" at the innercity schools is not followed by the schools of veterinary medicine as these schools averaged far more space per student than did the schools in the other locales (see Figure 3.VIII.F).

FIGURE 3.VIII.F
COMPARISON AND CONTRAST OF NASF PER STUDENT, SCHOOLS OF VETERINARY
MEDICINE--FALL, 1973



The relationships noted above hold relatively consistent as we view individual room types. One exception to this statement is library space in the three suburban schools. Whereas, overall, these schools are second to innercity schools in terms of NASF per student, they reported the lowest average library space per student.

Classroom stations per student averaged 1.41, with a high of 2.46 and a low of .52. Four schools reported having no classrooms under their day-to-day control. Large schools had approximately 50% more stations per student than did the medium and smaller schools. Class lab stations were not as numerous per student as were the classroom stations, averaging only 1.09 (with a range of .22 to 1.70).

The schools of veterinary medicine, in general, had access to about half as many joint-use classrooms and student stations as were allocated to them. Schools of medium size and/or suburban locale tend to be on the high side of this figure (see Table 3.VIII.7).

TABLE 3.VIII.7
JOINT-USE FACILITIES AVAILABLE TO SCHOOLS OF VETERINARY MEDICINE--FALL, 1973

| | CLASSROOMS | | | | CLASS LABORATORIES | | | |
|-------------------|--|-----------------------------------|------------------------------|--|--|-----------------------------------|------------------------------|--|
| | NUMBER OF "ALLOCATED" STUDENT STATIONS (1) | STATIONS PER STUDENT (2) | JOINT-USE STATIONS (3) | COL (3) AS A % OF COL (1) (4) | NUMBER OF "ALLOCATED" STUDENT STATIONS (5) | STATIONS PER STUDENT (6) | JOINT-USE STATIONS (7) | COL (7) AS A % OF COL (5) (8) |
| TOTAL | 6,342 | 1.41 | 3,597 | 57 | 6,048 | 1.09 | 648 | 11 |
| Size of School | | | | | | | | |
| Large | 4,619 | 1.61 | 1,656 | 36 | 3,295 | 1.00 | 208 | 6 |
| Medium | 1,557 | 1.05 | 1,941 | 124 | 2,584 | 1.23 | 440 | 17 |
| Small | 166 | 1.08 | 0 | 0 | 169 | 1.10 | 0 | 0 |
| Control | | | | | | | | |
| Public | 5,626 | 1.42 | 3,322 | 59 | 5,432 | 1.08 | 648 | 12 |
| Private | 716 | 1.36 | 275 | 38 | 616 | 1.17 | 0 | 0 |
| Geographic Locale | | | | | | | | |
| Innecity | 953 | 1.36 | 275 | 29 | 885 | 1.26 | 0 | 0 |
| Outercity | 3,990 | 1.36 | 2,219 | 56 | 4,033 | 1.13 | 538 | 13 |
| Suburban | 1,233 | 1.75 | 1,103 | 89 | 961 | .85 | 110 | 11 |
| Rural | 166 | 1.08 | 0 | 0 | 169 | 1.10 | 0 | 0 |

Joint-use class laboratory space was apparently not nearly as accessible as classroom space to the schools of veterinary medicine, probably due to the more specialized nature of class laboratory facilities. The joint-use class laboratories provided only an 11% addition to those laboratories controlled by (allocated to) respondents.

b. Usage of Classrooms

Fifty-three percent of respondents' classroom space is primarily devoted to instruction in the basic biological sciences, with 40% of the space devoted to instruction in the clinical sciences, and the remaining 6% of mixed usage. In general, these same distributions held when the schools were grouped by size, locale, and control. The major exception to these figures pertains to private and innercity schools which reported major amounts (40% to 75%) of space not dedicated to either purpose.

Before proceeding, it is important to recall the discussion of PART 1 in which it was indicated that our computational method for assessing utilization percentages was more suitable to comparative analysis than to absolute measurement. The percentage figures of this and the subsequent section are depressed to the extent that 2,080 hours is greater than the true number of hours in an academic year as reported by respondents. In essence, our formula for resource utilization is:

$$\frac{\text{resource-hours utilized}}{\text{resource-hours available}} \times 100,$$

regardless of whether that resource is a room or a student station. In the denominator, resource hours "available" is basically given by:

$$\text{resource count (e.g., number of rooms)} \times 2,080.$$

While the use of 2,080 makes all schools comparable, the resulting percentage figure should only be used for group-to-group comparisons rather than as a measure of utilization in the absolute, except as related to the fact

that by removing certain operational, policy, and other constraints, a school might indeed hold classes on a 52 week per year, 40 hour per week basis.

Overall, the average classroom was used 619 hours out of the academic year. On a base of 2,080 hours, and applying the "joint-usage correction factor" (as described in detail in Appendix G), classroom utilization among the 13 schools of veterinary medicine for whom data were complete averaged 35%. This figure remains fairly stable over the school groupings which include more than one or two schools (large, medium, public, outer-city, Northcentral, and South).

TABLE 3.VIII.8
CLASSROOM UTILIZATION, SCHOOLS OF VETERINARY MEDICINE--FALL, 1973

| | NUMBER OF SCHOOLS | MEAN HOURS OF USAGE PER YEAR | NUMBER OF ROOMS | CLASSROOM UTILIZATION PERCENTAGE |
|-------------------|-------------------------|------------------------------------|-----------------------|--|
| TOTAL | 13 | 619 | 79 | 35 |
| Size of School | | | | |
| Large | 7 | 594 | 51 | 36 |
| Medium | 5 | 734 | 24 | 37 |
| Small | 1 | 289 | 4 | 14 |
| Control | | | | |
| Public | 11 | 676 | 67 | 39 |
| Private | 2 | 310 | 12 | 15 |
| Geographic Locale | | | | |
| Innercity | 2 | 409 | 13 | 20 |
| Outercity | 8 | 711 | 44 | 35 |
| Suburban | 2 | 634 | 18 | 53 |
| Rural | 1 | 289 | 4 | 14 |

Classroom student station utilization figures were neither as high nor as variable as the corresponding room utilization percentages. The average base), and the pattern of utilization percentages tended to follow that for room usage when the schools were grouped according to the analysis parameters used herein. Table 3.VIII.9 displays the "raw material" entering into the computation of student station utilization rates, and col-

umn 5 of that table shows, as its heading, the manner in which this raw material is organized to produce the percentage.

TABLE 3.VIII.9
CLASSROOM STUDENT STATION UTILIZATION,
SCHOOLS OF VETERINARY MEDICINE--FALL, 1973

| | "CONTROLLED" STATION HOURS* AVAILABLE (1) | STATION HOURS* USED BY VET. MED. STUDENTS (2) | "CONTROLLED" STATION HOURS* "BORROWED" BY OTHER SCHOOLS (3) | "JOINT-USE" STATION HOURS* BORROWED BY VET. MED. STUDENTS (4) | UTILIZATION PERCENT $\frac{(2)+(3)}{(1)+(4)} \times 100$ (5) |
|-------------------|---|--|---|---|---|
| TOTAL | 12.78 | 1.98 | .67 | .61 | 20 |
| Size of School | | | | | |
| Large | 9.19 | 1.14 | .65 | .16 | 19 |
| Medium | 3.24 | .79 | .02 | .45 | 22 |
| Small | .35 | .05 | 0 | 0 | 14 |
| Control | | | | | |
| Public | 11.29 | 1.75 | .67 | .60 | 20 |
| Private | 1.49 | .23 | 0 | .01 | 15 |
| Geographic Locale | | | | | |
| Innecity | 1.98 | .34 | 0 | .01 | 17 |
| Outercity | 7.88 | 1.15 | .10 | .46 | 15 |
| Suburban | 2.57 | .44 | .57 | .14 | 38 |
| Rural | .35 | .05 | 0 | 0 | 14 |

* In millions.

c. Usage of Class Laboratories

The distribution of class laboratory usage among "basic biological science", "clinical science", and "mixed usage" was highly similar to that for classrooms, both on average (54%, 37%, 9%, respectively) and for the various subgroupings of schools. The average class laboratory was used 711 hours per year, a value which disguises the fact that, as seen in Table 3.VIII.10, special purpose class laboratories are used much more heavily, on average, than are general purpose class laboratories.

TABLE 3.VIII.10
CLASS LABORATORY USAGE, SCHOOLS OF
VETERINARY MEDICINE--FALL, 1973

| | MEAN HOURS' USAGE PER YEAR | | ROOM UTILIZATION % | STUDENT STATION UTILIZATION % |
|-------------------|----------------------------|--------------------|--------------------------|----------------------------------|
| | GENERAL PURPOSE | SPECIAL PURPOSE | | |
| TOTAL | 332 | 851 | 34 | 18 |
| Size of School | | | | |
| Large | 256 | 891 | 36 | 20 |
| Medium | 430 | 622 | 25 | 16 |
| Small | 656 | 528 | 34 | 15 |
| Control | | | | |
| Public | 325 | 863 | 34 | 18 |
| Private | 459 | 349 | 29 | 19 |
| Geographic Locale | | | | |
| Innecity | 426 | 353 | 22 | 17 |
| Outercity | 306 | 909 | 35 | 16 |
| Suburban | 331 | 617 | 31 | 28 |
| Rural | 656 | 528 | 34 | 15 |

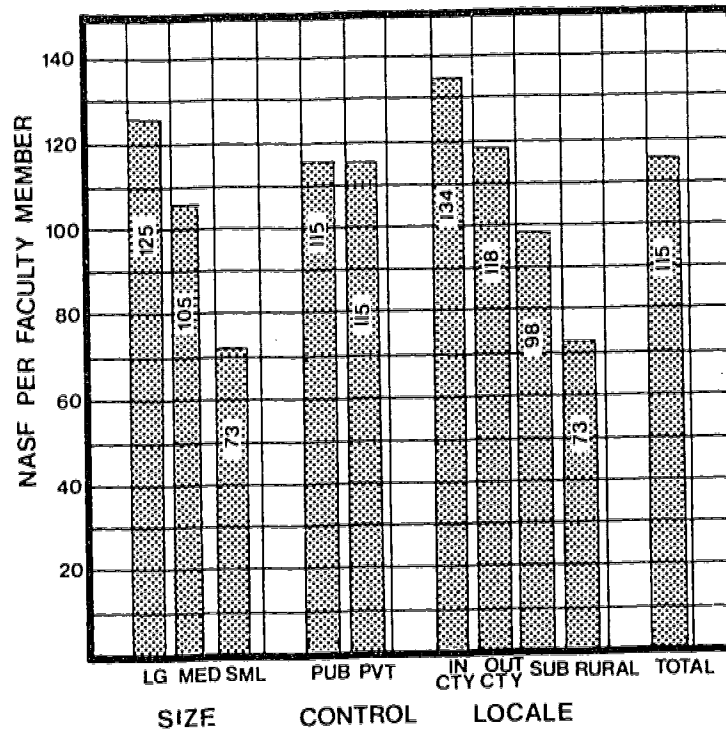
Class laboratory room utilization (34%) was essentially equal to that for classrooms, as an overall average measure, as were the percentages for student station utilization as shown in the above table (compare with Table 3.VIII.8). Separate utilization figures for general versus special purpose class laboratories could not be computed due to limitations in the data imposed by the design of the survey instrument.

d. Faculty Offices

All of the 17 respondents reported their full-time and part-time faculty, with a total of 1,481 FTE faculty reported in all. Comparison of the NASF of faculty office space with the full-time equivalent teaching faculty yields 115 NASF per faculty member. While schools in the public sector reported almost exactly the same NASF per faculty member as did schools in the private sector, strong relationships were exhibited between "size" of school, locale of school, and NASF per faculty member (see Figure 3.VIII.G).

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FIGURE 3.VIII.G
FACULTY OFFICE SPACE AVAILABLE TO FACULTY--FALL, 1973



e. Animal Facilities

The 17 schools of veterinary medicine responding to the relevant questions indicated that nearly 35% of their animal facilities (exclusive of those for animal patient care) were used for instructional purposes and the remainder (65%) were almost exclusively used for research. The largest departure from these figures was exhibited by the private schools which indicated that 50% were for instructional purposes.

f. Joint-Utilization of Classrooms and Class Laboratories

Overall, schools of veterinary medicine made available about 33% of their classrooms, but less than 1% of their class laboratories to students of other disciplines. However, with 50% of the joint-use classrooms reported

by one school, it is reasonable to conclude that very few classrooms or class laboratories are typically made available to other schools by schools of veterinary medicine. This low "sharing" of space with other schools is consistent with the small amount of such space reported to have been available from other sources; and reflects the specialized nature of the instruction received by veterinary medical students.

C. ONGOING CONSTRUCTION AND REMODELING, AND THE POST CONSTRUCTION INVENTORY

1. Extent, Purposes, and Cost

Eleven of the 17 schools of veterinary medicine responding to the survey indicated that, as of the survey date, they were involved in a construction or remodeling program. The reported programs ranged in size up to \$14 million for new construction, and up to \$5 million for a single remodeling program. The vast majority of the 700,000 GSF of new facilities (\$42 million of construction cost) was reported by the public sector (99% of the total). As may be seen in Table 3.VIII.11, the two private schools were incurring 42% of the cost of the ongoing remodeling.

TABLE 3.VIII.11
OVERVIEW OF ONGOING CONSTRUCTION AND REMODELING AT
SCHOOLS OF VETERINARY MEDICINE--FALL, 1973

| | NUMBER OF SCHOOLS WITH CONSTRUCTION OR REMODELING | NEW CONSTRUCTION PROGRAMS | | | REMODELING PROGRAMS | | |
|-------------------|--|---------------------------|--------------|-----------------|---------------------|---------------|-----------------|
| | | NUMBER | GSF (000) | COST (\$000) | NUMBER | NASF (000) | COST (\$000) |
| TOTAL | 11 | 7 | 681 | 42,333 | 6 | 47 | 1,655 |
| Size of School | | | | | | | |
| Large | 6 | 3 | 418 | 25,153 | 3 | 22 | 817 |
| Medium | 4 | 3 | 249 | 16,830 | 2 | 21 | 588 |
| Small | 1 | 1 | 14 | 350 | 1 | 4 | 250 |
| Control | | | | | | | |
| Public | 9 | 6 | 667 | 41,983 | 4 | 32 | 964 |
| Private | 2 | 1 | 14 | 350 | 2 | 15 | 691 |
| Geographic Locale | | | | | | | |
| Innecity | 1 | 0 | 0 | 0 | 1 | 11 | 441 |
| Outercity | 8 | 5 | 591 | 39,230 | 4 | 32 | 964 |
| Suburban | 1 | 1 | 76 | 2,753 | 0 | 0 | 0 |
| Rural | 1 | 1 | 14 | 350 | 1 | 4 | 250 |
| Census Region | | | | | | | |
| Northeast | 1 | 0 | 0 | 0 | 1 | 11 | 441 |
| Northcentral | 5 | 4 | 588 | 39,155 | 1 | 10 | 338 |
| West | 2 | 1 | 76 | 2,753 | 1 | 12 | 104 |

FIGURE 3.VIII.H
VETERINARY MEDICAL SCHOOLS' PURPOSES OF ONGOING CONSTRUCTION AND REMODELING
FALL, 1973

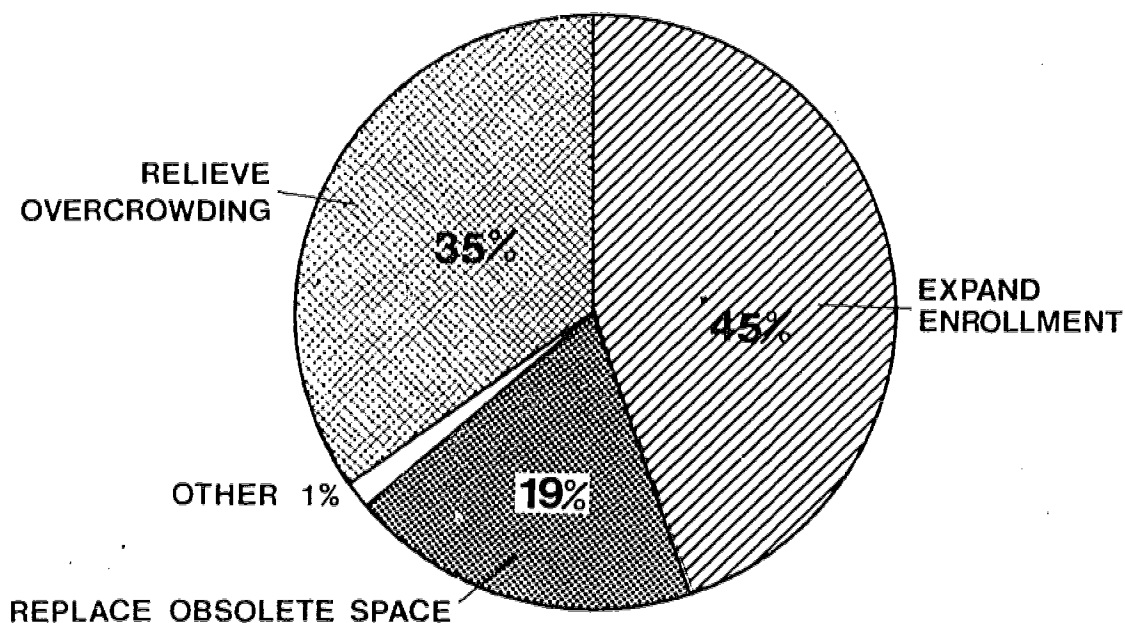
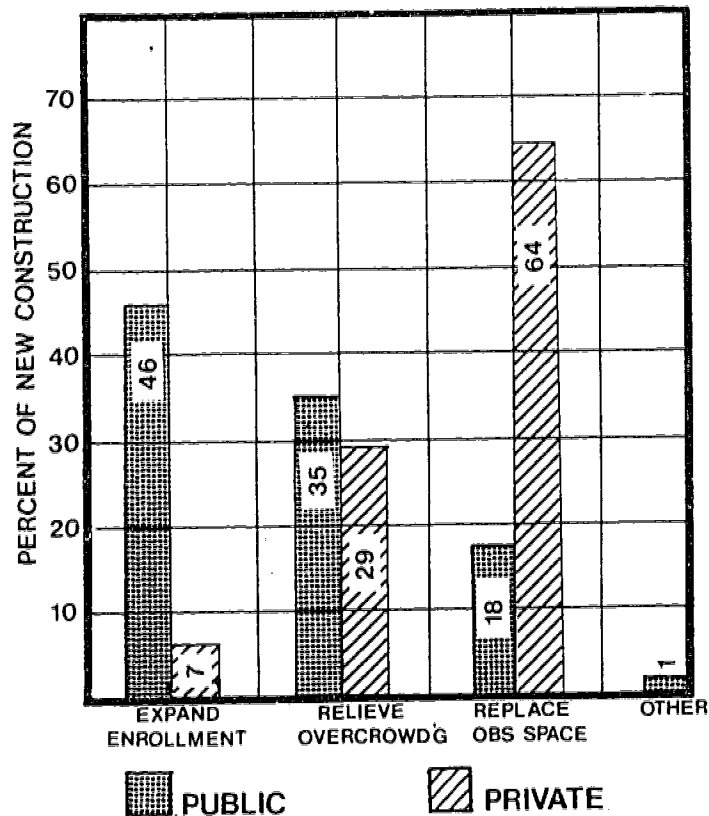


Figure 3.VIII.H Illustrates the purposes of the new construction for all responding schools of veterinary medicine as a group. Dividing the schools by sector, it is found that the construction efforts of the public sector were primarily for enrollment expansion purposes, while replacement of obsolete space was the key purpose for the privately controlled schools (see Figure 3.VIII.I).

FIGURE 3.VIII.1
PURPOSES OF ONGOING CONSTRUCTION IN PUBLIC AND PRIVATE
SCHOOLS OF VETERINARY MEDICINE--FALL, 1973



2. Sources of Funds for Ongoing Construction and Remodeling Programs

State and local funds and HPEA construction grants provided all but three percent of the total funds for the ongoing construction and remodeling programs, with the state and local funding representing three times that of HPEA (72% versus 25%).

3. The Effects of Ongoing Construction and Remodeling

In terms of NASF, the net effect of ongoing construction and remodeling would be to increase the veterinary medical schools' inventory by 275,000 NASF,

bringing their "allocated" nonclinical instruction facilities to 2.16 million. As may be seen in Table 3.VIII.12, the bulk of this growth is to occur in the Northcentral part of the country, primarily at large, publicly controlled schools.

TABLE 3.VIII.12
POST-CONSTRUCTION INVENTORY OF NONCLINICAL INSTRUCTION
FACILITIES, SCHOOLS OF VETERINARY MEDICINE

| | 1973 INVENTORY (000 NASF) | POST- CONSTRUCTION INVENTORY (000 NASF) | CHANGE IN INVENTORY (000 NASF) | % CHANGE |
|-------------------|---------------------------------|--|--------------------------------------|-------------|
| TOTAL | 1,885 | 2,160 | 275 | 14.6 |
| Size of School | | | | |
| Large | 1,164 | 1,346 | 182 | 15.6 |
| Medium | 692 | 784 | 92 | 13.3 |
| Small | 29 | 30 | 1 | 3.4 |
| Control | | | | |
| Public | 1,614 | 1,888 | 274 | 17.0 |
| Private | 271 | 272 | 1 | .4 |
| Geographic Locale | | | | |
| Innecity | 398 | 398 | 0 | 0 |
| Outercity | 1,060 | 1,286 | 226 | 21.3 |
| Suburban | 398 | 446 | 48 | 12.1 |
| Rural | 29 | 30 | 1 | 3.4 |
| Census Region | | | | |
| Northeast | 242 | 242 | 0 | 0 |
| Northcentral | 716 | 928 | 212 | 29.6 |
| South | 523 | 526 | 3 | .6 |
| West | 404 | 464 | 60 | 14.9 |

Over and above the effects of the construction and remodeling programs, 14 of the 17 respondents indicated a need for 930,000 NASF of nonclinical instruction facilities to accommodate the enrollment expected at the time of those programs' completion.

At a minimum, we estimate that 158,000 NASF of this need is for replacement of obsolete facilities. (Exclusive of the effects of the construction programs, nine schools indicated a need for 216,000 NASF for replacement purposes as of

fall, 1973. 18.8 percent of the ongoing construction was reported to be for replacement purposes. Since the NASF to result from the new construction was 310,000, 18.8% of the latter would be 58,000 NASF estimated to be constructed for facilities replacement. 216,000 minus 58,000 yields the estimated minimum replacement need of 158,000 NASF.) Table 3.VIII.13 displays the results of similar computations for the various groupings of schools used in this analysis.

TABLE 3.VIII.13
EFFECTS OF ONGOING CONSTRUCTION UPON FACILITIES REPLACEMENT
NEEDS--SCHOOLS OF VETERINARY MEDICINE

| | NASF* NEED- ING REPLACE- MENT AS OF FALL, 1973 | ESTIMATED NASF* BEING REPLACED | PERCENT OF REPLACEMENT NEED ALLEVIATED | MINIMUM REPLACEMENT NEED, POST- CONSTRUCTION |
|-------------------|---|--------------------------------------|---|---|
| TOTAL | 216 | 58 | 27 | 158 |
| Size of School | | | | |
| Large | 142 | 44 | 31 | 98 |
| Medium | 74 | 12 | 16 | 62 |
| Small | 0 | 3 | -- | -- |
| Control | | | | |
| Public | 216 | 55 | 25 | 161 |
| Private | 0 | 3 | -- | -- |
| Geographic Locale | | | | |
| Innercity | 47 | 0 | 0 | 47 |
| Outercity | 90 | 45 | 50 | 45 |
| Suburban | 79 | 9 | 12 | 70 |
| Rural | 0 | 3 | -- | -- |

* All figures are in thousands.

Table 3.VIII.14 shows the distribution of the 930,000 NASF needed on a room-type basis. As may be seen, overcrowding represents a significant proportion of the need in almost every case.

TABLE 3.VIII.14
NASF NEEDED BY ROOM-TYPE FOLLOWING COMPLETION OF ONGOING CONSTRUCTION
AND REMODELING--SCHOOLS OF VETERINARY MEDICINE

| | NASF (000) AT SCHOOLS REQUIRING ADDITIONAL SPACE* | NASF NEEDED (000) | NASF NEEDED AS % OF INVENTORY | NASF NEEDED TO RELIEVE OVER- CROWDING (000) | OVER- CROWDING NEED AS A % OF TO- TAL NEED |
|------------------------------|---|-------------------------|--|--|--|
| TOTAL | 1,741 | 930 | 53 | 396 | 43 |
| Classroom | 115 | 68 | 59 | 37 | 54 |
| Class Laboratory | 299 | 206 | 69 | 71 | 34 |
| Research & Research Training | 372 | 189 | 51 | 65 | 34 |
| Library | 27 | 46 | 170 | 28 | 61 |
| Auditorium | 1 | 19 | 1,900 | 2 | 11 |
| Faculty Office | 132 | 72 | 55 | 40 | 56 |
| Administrative Areas | 57 | 26 | 46 | 6 | 23 |
| Animal Facilities | 397 | 307 | 77 | 147 | 48 |

* Column's elements do not sum to 1,741 since not all respondents reported the distribution of the post-construction inventory among room-types.

4. The Post Construction Student Population

As mentioned above, and given the inherent assumptions underlying our definition of "post-construction period", we find that the difference between the FTE enrollment as of the survey date and the FTE enrollment "following the completion of ongoing construction and remodeling" is 12 percent, with the respondents' projected aggregate FTE enrollment increasing from 5.9 to 6.7 thousand students. The two schools of the private sector anticipate a 33% growth in enrollment, from 526 to 700 students, while the single "small" school in our survey population envisions a growth factor of 44% upon completion of its ongoing construction efforts (from 153 to 220 FTE students). Table 3.VIII.15 summarizes the inter-relationships between facilities and enrollment growth by presenting the changes in NASF per student expected to occur between the fall of 1973 and the "post-construction period" on a room-type basis.

TABLE 3.VIII.15
CHANGES IN NASF PER STUDENT, FALL, 1973 TO POST-CONSTRUCTION
PERIOD--SCHOOLS OF VETERINARY MEDICINE

| | NASF PER STUDENT 1973 | NASF PER STUDENT, "POST- CONSTRUC- TION" | DIFFERENCE | % CHANGE |
|------------------------------|-----------------------------|--|------------|----------|
| TOTAL | 321.2 | 328.1 | 6.9 | 2 |
| Classroom | 17.8 | 20.1 | 2.3 | 13 |
| Class Laboratory | 58.6 | 70.0 | 11.4 | 19 |
| Research & Research Training | 110.9 | 105.1 | -5.8 | -5 |
| Library | 9.0 | 9.9 | .9 | 10 |
| Auditorium | 2.2 | 1.8 | -.4 | -18 |
| Faculty Offices | 28.9 | 30.2 | 1.3 | 4 |
| Administrative Areas | 16.5 | 17.3 | .8 | 5 |
| Animal Facilities | 76.6 | 73.7 | -2.9 | -4 |

D. THE 1983 LOOK AHEAD

As of the fall of 1973, the schools of veterinary medicine were planning 1.8 million NASF of new construction to be completed prior to 1983, and an expansion in enrollment (headcount) to 8,512. The NASF figures obtained for the "1983 look-ahead" do not exclude either "on-site patient care" or "other" facilities, so in order to show the combined effects of enrollment and facilities changes on a comparable basis, Table 3.VIII.16 reinstates "on-site patient care" and "other" facilities into the total NASF. The table also uses headcount in determining the NASF per student ratio.

TABLE 3.VIII.16
CHANGES IN NASF PER STUDENT, SCHOOLS OF VETERINARY
MEDICINE--1973-1983

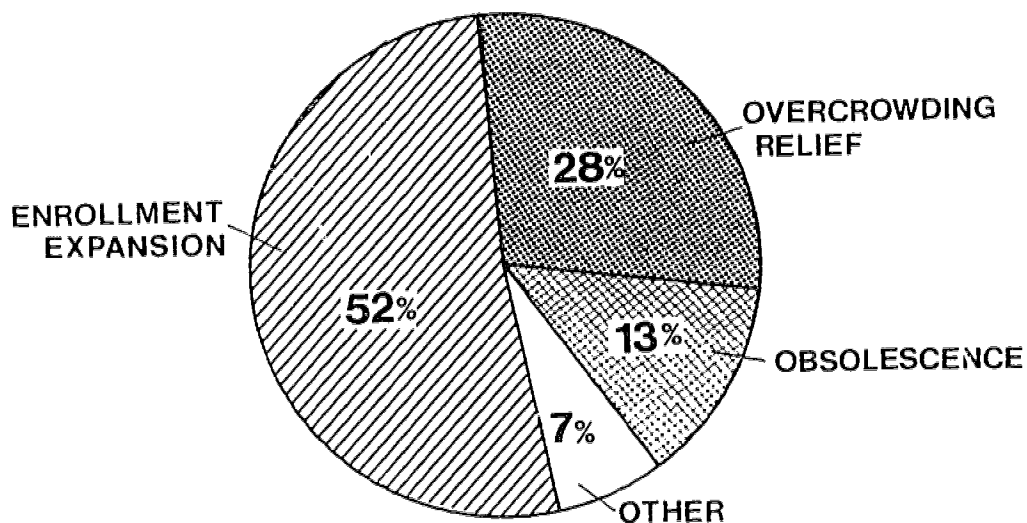
| | FALL, 1973 | | POST-CONSTRUCTION | | FALL, 1983 | |
|-------------------|------------|------------------|-------------------|------------------|------------|------------------|
| | NASF (000) | NASF PER STUDENT | NASF (000) | NASF PER STUDENT | NASF (000) | NASF PER STUDENT |
| TOTAL | 2,391 | 399 | 2,717 | 403 | 4,3577 | 512 |
| Size of School | | | | | | |
| Large | 1,363 | 404 | 1,554 | 413 | 2,492 | 526 |
| Medium | 988 | 400 | 1,119 | 405 | 1,805 | 521 |
| Small | 40 | 261 | 44 | 200 | 60 | 194 |
| Control | | | | | | |
| Public | 2,104 | 384 | 2,426 | 401 | 4,050 | 524 |
| Private | 287 | 546 | 291 | 416 | 307 | 389 |
| Geographic Locale | | | | | | |
| Innercity | 460 | 657 | 460 | 570 | 757 | 805 |
| Outercity | 1,423 | 355 | 1,693 | 371 | 2,474 | 445 |
| Suburban | 468 | 413 | 520 | 449 | 1,066 | 624 |
| Rural | 40 | 261 | 44 | 200 | 60 | 194 |
| Census Region | | | | | | |
| Northeast | 247 | 662 | 247 | 515 | 247 | 515 |
| Northcentral | 942 | 321 | 1,194 | 343 | 1,761 | 415 |
| South | 648 | 403 | 658 | 388 | 1,165 | 509 |
| West | 554 | 512 | 618 | 564 | 1,184 | 788 |

While the overall trend is toward an increasing NASF per student figure, specific groups, in particular the two schools of the private sector, show a re-

duction in NASF per student. Due to the small sizes of some of these groups, the reversal is not considered significant except to the extent that it adds to the overcrowding pressure reported for the fall of 1973.

Figure 3.VIII.J details the perceived purposes of the projected future construction.

FIGURE 3.VIII.J
VETERINARY MEDICAL SCHOOLS' PURPOSES OF CONSTRUCTION PLANNED THROUGH 1983



E. THE FALL, 1973 INVENTORY OF CLINICAL FACILITIES AND NONCLINICAL FACILITIES
IN CLINICAL AREAS

1. Clinical Facilities

The 17 respondent schools of veterinary medicine reported a total of 21 animal hospitals, or clinics used as major teaching components in their respective academic programs. 3,406 animal holding units were used on an inpatient basis: nearly half of them were integrally related with nonclinical instruction facilities controlled by respondents. It is interesting to note the clear pattern which emerges in assessing holding units per student (see Table 3.VIII.17). While the overall average of .58 is reasonably fixed regardless of size or control of school, the average for the various locales appears to be related to distance from innercity areas. While the sample sizes (particularly in innercity and rural) do not lend themselves to statistical significance, the pattern is quite pronounced.

Outpatient facilities for clinical teaching included 388 animal patient stations in 165 examining and treatment rooms. As seen in Table 3.VIII.17, these stations serviced 155,000 animal patient visits per year (1972 figures).

TABLE 3.VIII.17
CLINICAL TEACHING RESOURCES, SCHOOLS OF VETERINARY MEDICINE--FALL, 1973

| | NUMBER OF CLINICS | ANIMAL HOLDING UNITS | HOLDING UNITS PER STUDENT | OUT- PATIENT STATIONS | ANIMAL PATIENT VISITS PER YEAR | VISITS PER STUDENT |
|-------------------|-------------------------|----------------------------|---------------------------------|-----------------------------|---|--------------------------|
| TOTAL | 21 | 3,406 | .58 | 388 | 155,447 | 26 |
| Size of School | | | | | | |
| Large | 9 | 1,804 | .55 | 158 | 102,603 | 31 |
| Medium | 11 | 1,509 | .62 | 220 | 52,144 | 21 |
| Small | 1 | 93 | .61 | 10 | 700 | 5 |
| Control | | | | | | |
| Public | 18 | 3,104 | .58 | 368 | 150,199 | 28 |
| Private | 3 | 302 | .57 | 20 | 5,248 | 10 |
| Geographic Locale | | | | | | |
| Innercity | 2 | 325 | .87 | 23 | 10,492 | 15 |
| Outercity | 12 | 2,088 | .73 | 146 | 107,758 | 28 |
| Suburban | 5 | 815 | .52 | 209 | 36,005 | 32 |
| Rural | 2 | 178 | .16 | 10 | 700 | 5 |

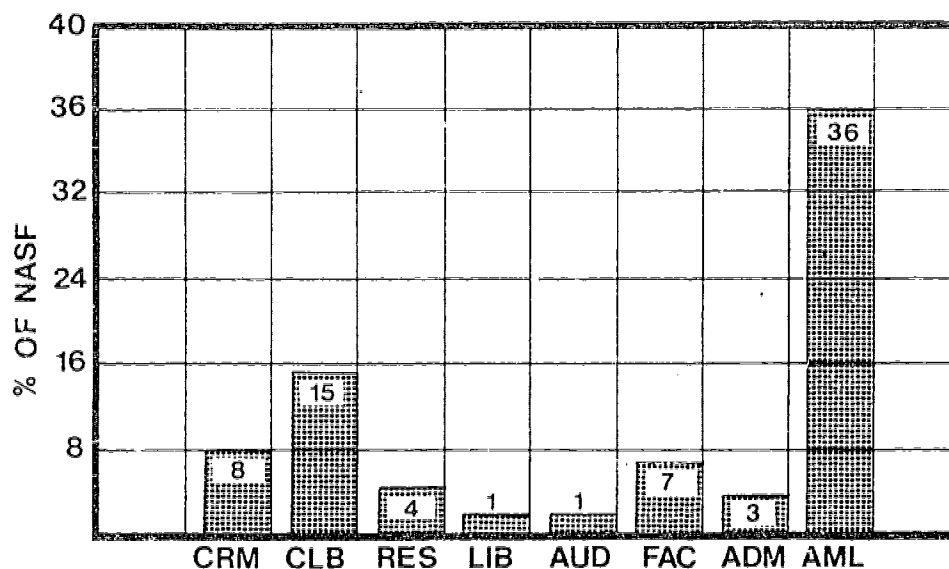
2. Nonclinical Facilities in Clinical Areas

a. Description

The 288,000 NASF of nonclinical instruction facilities found in 12 owned and affiliated animal hospitals represented a 15% adjunct to the nonclinical instruction facilities "allocated" to the respondent schools of veterinary medicine.

The "distribution profile" of nonclinical facilities in clinical areas indicates that non-patient animal facilities represented the largest element relative to other room-types, accounting for 36% of the NASF reported. Class laboratories were the next largest element, representing 15% of the distribution profile (see Figure 3.VIII.K).

FIGURE 3.VIII.K
DISTRIBUTION PROFILE OF NONCLINICAL INSTRUCTION FACILITIES IN CLINICAL AREAS



b. Adequacy of Nonclinical Instruction Facilities in Clinical Areas, Fall, 1973

(1) Condition

Respondents reported that approximately 84% (240,000 NASF) of the fall, 1973 inventory of nonclinical instruction facilities in clinical settings were "satisfactory for program purposes". Of the remaining 48,000 NASF, only 27,000 could be made satisfactory through remodeling; while the remainder required replacement (see Table 3.VIII.18).

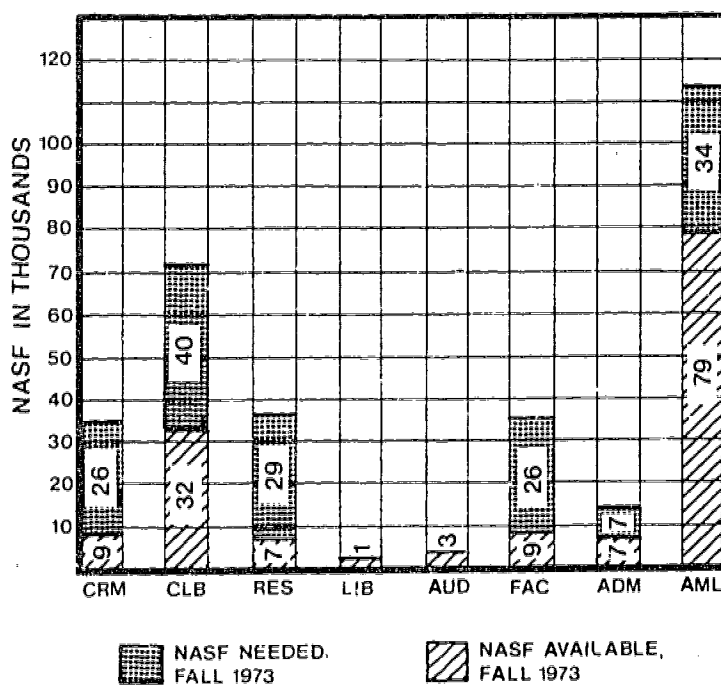
TABLE 3.VIII.18
CONDITION OF NONCLINICAL FACILITIES IN CLINICAL AREAS,
SCHOOLS OF VETERINARY MEDICINE--FALL, 1973

| | TOTAL NASF (000) | NASF SATISFACTORY (000) | NASF NEEDING REMODELING (000) | NASF NEEDING REPLACEMENT (000) |
|-------------------|------------------------|-------------------------------|--|---|
| TOTAL | 288 | 243 | 27 | 18 |
| Size of School | | | | |
| Large | 136 | 91 | 27 | 18 |
| Medium | 152 | 152 | 0 | 0 |
| Small | 0 | -- | | |
| Control | | | | |
| Public | 256 | 211 | 27 | 18 |
| Private | 32 | 32 | 0 | 0 |
| Geographic Locale | | | | |
| Innecity | 0 | -- | | |
| Outercity | 230 | 185 | 27 | 18 |
| Suburban | 26 | 26 | 0 | 0 |
| Rural | 32 | 32 | 0 | 0 |

(2) Instructional Facilities Needed in Clinical Settings

Nine hospitals perceived a need for additional facilities, these hospitals representing 51% of the inventory of nonclinical instruction facilities in clinical areas. About 163,000 NASF were seen to be needed, with 79% (122,000 NASF) of this figure for overcrowding relief. While the NASF needed represents 57% of the total NASF available as of fall, 1973, it represents 112% of the NASF available at the nine facilities expressing a need. On a room-type basis, those respondents having a need wished to more than quintuple the available square footage of research and research training space, quadruple the available classroom and faculty office facilities and double the existing laboratory and administrative space. Animal facilities, the largest portion of the distribution profile, was seen to need only a 43% increase. Since there was no reported construction or remodeling of clinical facilities (or nonclinical facilities in clinical areas) as of the survey date, the latter needs are equivalent to those for the "post-construction period" discussed in previous sections.

FIGURE 3.VIII.L
COMPARISON OF SPACE AVAILABLE WITH SPACE NEEDED, VETERINARY MEDICAL
SCHOOLS' NONCLINICAL INSTRUCTION FACILITIES IN CLINICAL AREAS



F. THE 1983 LOOK AHEAD FOR CLINICAL FACILITIES

Three large schools indicated a planned construction program for the coming decade. Of the 231,000 NASF to be constructed (including animal patient care areas), the percentage to be applied to expanding enrollment was projected to be more than half the total amount (52%). Most of this construction (88%) would be performed by the schools of the public sector and would be situated almost entirely in innercity and outercity locales.

TABLE 3.VIII.19
CURRENT NEEDS, AND PLANNED CONSTRUCTION OF NONCLINICAL
FACILITIES IN CLINICAL AREAS, SCHOOLS OF VETERINARY MEDICINE

| | NASF NEEDED (000) | CONSTRUCTION THROUGH 1983 (000 NASF) | PROJECTED INVENTORY, FALL, 1983 |
|-------------------|----------------------|--|---------------------------------------|
| TOTAL | 163 | 231 | 416 |
| Size of School | | | |
| Large | 56 | 231 | 264 |
| Medium | 107 | 0 | 152 |
| Small | 0 | 0 | 0 |
| Control | | | |
| Public | 157 | 155 | 327 |
| Private | 6 | 76 | 89 |
| Geographic Locale | | | |
| Innercity | 4 | 76 | 57 |
| Outercity | 151 | 155 | 301 |
| Suburban | 6 | 0 | 26 |
| Rural | 2 | 0 | 32 |
| Census Region | | | |
| Northeast | 6 | 76 | 89 |
| Northcentral | 122 | 102 | 246 |
| South | 35 | 53 | 72 |
| West | 0 | 0 | 9 |

As may be seen, the large need at the medium-sized schools will not be fulfilled by 1983--an additive need representing over two-thirds the magnitude of the inventory available as of the survey date.

APPENDIX A
DETAILED DESCRIPTION OF SURVEY METHODOLOGY

A. DESIGN OF THE SURVEY INSTRUMENT

1. Problems to be Overcome

a. The Mail Survey Technique as a Vehicle for the Required Research

Mail survey techniques should ordinarily be used for research which involves short, factual answers requiring the response of only a subset (sample) of the target population. Complex questions which ostensibly require two-way, give-and-take interaction between respondent and the researcher should be treated through the mails. Of primary importance to both the response rate and the validity of the data is the amount of effort required for completion of the survey instrument; typically, the shorter the survey form, the better in both cases.

Each of the above principles was of immediate concern in the survey at hand. It was known at the onset that the instrument would be long, and would require a significant number of "guesstimates" and opinions. Moreover, it was desired that as high a return rate as possible be obtained--not so much for the purposes of statistical projection as for the purpose of establishing an inventory of HPE facilities, needs, and usage factors. Finally, the complexity of the desired information was such that direct questions would not suffice, (e.g., "what is your classroom occupancy rate?")

b. The Problem of Double Counting of Facilities

As the costs of facilities construction have increased, there has been an increasing tendency on the part of schools of varying professions to share in their usage of (i.e., jointly utilize) physical facilities and other resources. In light of this fact, we could not obtain a space

inventory by simply requesting that each respondent report "space available for use" and aggregating the results over all responses: we would have double and, perhaps, triple counted all jointly-used facilities.

c. Changing Facilities Picture

The time period both before and during which the survey would be conducted was felt to be one of considerable flux in the configuration of facilities available for health professions education. Delineation of an "inventory" of facilities would somehow have to account for ongoing construction and remodeling activities so that their transient effects would not cloud our desired "point-in-time" assessment of facilities needs and availabilities.

d. Non-standard Terminology Among the Health Professions

One implicit requirement of the ability to assess HPE facilities on a national basis, at a given point in time, was that the data collected from all professions be compatible. Compatibility implied the need for a standard terminology which, at the inception of the survey, did not exist. In fact, within a given profession, the individual schools were found to utilize differing terminologies. Further complicating this issue was the fact that a number of the survey's more complex informational needs would require development of some entirely new terminology if we were to express them to respondents in a comprehensible manner.

e. Respondents' Cost of Data Collection

Given the survey's informational goals, there was no doubt that it would impose a serious burden upon respondents. Of greatest concern was the potential need for top level administrators to complete portions of the instrument. Since health professions schools were already beset by a variety of questionnaires from a number of concerned agencies, it was not expected that the survey universe would react positively to "yet another" survey form. The paradoxical situation thus arose of attempting

to obtain a comprehensive and complicated data structure with a minimum of effort by relatively low cost clerical staff. It ultimately proved infeasible to do so, though not for technical reasons.

f. Potential Survey Bias

It was also anticipated that the survey results might be biased in the related areas of (1) the schools' perceived needs for facilities in addition to those already available to their use; and (2) quantitative measures of facilities utilization. It was thus recognized that it would be necessary to develop a systematic, justifiable, and objective approach to utilization assessment for the purposes of obtaining unbiased estimates. Such estimates could then be used as a benchmark with which perceived facilities needs might be compared.

2. Approach

a. Philosophy

The philosophy underlying the survey instrument's design had a number of complementary facets. First, it was desired to reduce, to a minimum, the effort required of respondents, while leaving the repetitive or complicated arithmetic tasks to a computer. Second, it was deemed valuable to formulate the data inquiries in as disaggregate a form as possible, thereby affording the research team maximum flexibility for manipulating the data and synthesizing information therefrom. Third, the numerous pitfalls associated with interpreting such a complex data set demanded that to the greatest extent possible, respondents should be prevented from "apportionment" of space (e.g., dividing a single room's area into teaching space and research space). If apportionment of space were to be performed at all, it would be performed in a systematic and consistent way for all respondents: and it would use data whose meaning and derivation were clear to the researchers.

Fourth and finally, a long-term survey effort of the U.S. Office of Education (the Higher Education General Information Survey -- HEGIS) was known to have resulted in aggregate facilities data at each of the Nation's college campuses. In the Higher Education Facilities Classification and Inventory Procedures Manual (Publication OE 51016) it had been strongly suggested that each campus maintain its facilities inventory on a room-by-room basis. If such had, in fact, been done, the facilities data source most conveniently available to respondents would represent a content and level of disaggregation imminently suitable to our survey's needs. Under the expectation that room-by-room facilities data were available to each campus either in manual or computer-addressable form, the survey instrument design proceeded under the assumption that room-by-room data would be the foundation from which each response would be built.

b. Design Phase I: The Room-by-Room Approach

Although a draft survey instrument had been prepared by the Agency's Project Officer prior to the initiation of the design effort, a facilities survey of the 250 college campuses of the State of New York had used a room-by-room approach and had been markedly successful. It was thus mutually agreed that the study team (composed of the Contractor and the Agency's Project Officer) should develop, independent of the Project Officer's initial draft, a room-by-room survey design.

Just subsequent to the start of this effort, a panel of 13 consultants was appointed by the Bureau and retained by RRC. These individuals (see Appendix B) represented a concentration of top level professional and administrative expertise in all eight health professions, in library systems, audio-visual instruction and teaching hospital facilities. The function of this group was to act in an advisory and "sounding board" capacity for the research team. At the end of a two month initial design phase for the room-by-room survey instrument, a meeting was held in Bethesda, Maryland, on November 2, 1971 during which the approach was presented by the study team to the consultants (and others) and discussed at some length.

Briefly, the concept of this approach was that each respondent would fill out a set of work sheets (one line of data for each room in the school's current facilities inventory) and would mail these sheets to RRC, along with "class lists" and a "master schedule". These data would be computer processed to yield information regarding (1) the types, amounts, and condition of square footage used by each school; and (2) highly accurate classroom and class laboratory station utilization figures. In addition to these data, a two or three page questionnaire would be submitted to a top administrative official of each school. This questionnaire would cover all of those topics which were not amenable to resolution using the room-by-room/master schedule/class lists approach. Cost and time estimates of the required level of commitment on the part of each respondent indicated that the burden would represent the equivalent of \$1200-\$1500.

The consultants' reaction to this proposed approach was less than positive due to the major investment of clerical time it would require. It was not obvious that for purposes of accuracy and ease of reporting, the first step in responding to any survey of the nature in question would be to develop a room-by-room listing from which any aggregation of room-types could then quickly be built.

It was also discovered that the concept of a fixed "master schedule" is not necessarily germane to the operation of all of the Nation's health professions schools. Faculty often serve dual roles as both teachers and practicing members of the health care delivery community. As a result, it is often necessary to hold classes on an irregular basis. In view of the above two factors, design emphasis reverted to that of the Project Officer's originally prepared questionnaire draft which embodied a self-contained set of data which is herein called an "aggregate" approach.

c. Design Phase II: the "Aggregate" Approach

The so-called "aggregate" approach was, to some degree, a logical extension of the room-by-room approach. Conceptually, it simply left to respondents

the added responsibility for performing the repetitive arithmetic required to report square footage aggregates by room type and other parameters. Although the resulting questionnaire would be quite long and complex, its closed-end and self-contained nature would, it was anticipated, be much more acceptable to the survey universe.

The solutions to the kinds of problems outlined previously have direct bearing on the format and content of the data collection instruments devised for the pretest. For example, it was ultimately determined that two data collection instruments would be required to avoid the problem of double counting: one form would deal with space controlled by a health professions school; while the other would relate to space used but not controlled by a health professions school. The white form, the "Health Professions School Questionnaire" (see Appendix C), was used to capture data regarding all space "allocated to" (controlled by) health professions schools. The blue, "Parent Institution Questionnaire", was used to collect data concerning those facilities made available to health professions schools on a non-allocated basis. Theoretically, the sum of the two quantities of space ("allocated" plus "not allocated") would yield total space being used either wholly or partially for the purposes of health professions education.

The problem of the shifting facilities configurations available for use by health professions schools was solved by requesting respondents to report three fundamental pieces of information:

- (1) the form and composition of the inventory as of fall, 1973;
- (2) a description of ongoing and fully authorized construction and remodeling programs; and
- (3) the inventory of facilities expected to be available at such time that the ongoing construction and remodeling programs were completed.

Survey terminology was standardized through the development of an extensive set of room-type definitions and terms used in the instructions.

Such terms as "allocated", "joint-use", and "respondents' students", which may seem familiar enough to the reader, were defined specifically for the purposes of the survey. In addition, it was found through study of the HEGIS facilities manual that the assignment of facilities to individual schools of a given campus was not done at a level of detail sufficient for our purposes, while the manner in which HEGIS defined its room-types was not completely in keeping with our particular survey's information needs. As a result, although the HEGIS room-type classification structure was used as the foundation of this survey, we found it necessary to redefine somewhat the HEGIS room-type codes to include the additional component of "room function". For example, the HEGIS room-type (110) "instructional space" was allowed to include HEGIS room-type (350) "conference room", if, in fact, that conference room were used as a classroom for a significant portion of the academic year.

To allow an objective assessment of utilization figures, both the pre-test and full-scale survey instruments were organized such that the computation of utilization percentages required the research team's synthesis of descriptive data reported on four scattered pages. No attempt was made to have the questionnaire act as a self-validating mechanism in the assessment of respondents' reported needs for additional space: it was expected that the data analysis phase of the survey would indicate (through comparison of utilization with "needs" data) whether or not the latter were significantly out of line.

d. Design Phase III

A second meeting was held by the study team (February, 1972) with the panel of 13 consultants. In this two-day session, during which the results of design phase II were exhibited and discussed, a number of interesting points were brought up which had marked effect upon the content of the data gathering instrument. Of primary importance was the fact that the majority of the consultants were of the opinion that clinical facilities had not been treated in enough detail in light of the survey's stated goals. It was indicated that clinical instruction facilities are at

least as important as non-clinical instructional facilities, particularly in the case of medical schools.

Just prior to the pretest, the survey design group thus incorporated a series of questions regarding the availability and use of clinical instruction facilities and other resources. This revision brought up a problem all its own: since a survey of the nature and scope of HEGIS had not been performed for teaching hospitals and other clinical teaching facilities, it was very possible that the data required would not be conveniently available. It was left to the pretest to give definitive indications of whether hospital data could feasibly be requested.

In May of 1972, the proposed pretest instrument was sent to the panel of consultants, to all of the health professions school associations, and to a variety of Federal agencies and other interested parties for comment (see Appendix D for listing). Suggestions were incorporated into the instrument, and final preparations were then made for the pretest mailing.

B. THE PRETEST AND ITS RESULTS

1. Execution

The pretest of the survey instrument was conducted during the summer of 1972 with the cooperation of nine health professions schools and three parent institutions, the names of which are presented in Appendix H. The sample represented not only a wide geographical dispersion, but included five different health professions and a wide variety of sizes and degrees of complexity of facilities configuration.

In anticipation of the time frame of the full-scale survey, the pretest institutions were given four and six weeks, respectively, for completion of the Parent Institution Questionnaire and Health Professions School Questionnaire. While four weeks was shown to be an adequate period for the former, the six week deadline was difficult to meet due to the summer timing of the pretest with its usual implications of vacations and skeletal staff.

While awaiting the schools' completion of the questionnaire, a series of discussion questions was developed for use in the pretest's site visitation phase. The ensuing discussions became the foundation of our efforts to interpret and solve the problems encountered by the pretest institutions. (Appendix E contains a copy of the internal document used by RRC in the conduct of the discussions with the pretest institutions. Detailed page and item numbers refer to the pretest questionnaires.)

2. Pretest Findings

After several meetings with pretest respondents, it became evident that fewer major difficulties were encountered by the schools than had been anticipated, although the usual minor definitional and wording problems were identified and addressed. In general, the survey intent, scope, and data collection vehicle received a favorable response from the participants.

a. High Level Administrators Required

The most serious potential problem uncovered was that the length and complexity of the questionnaire necessitated much of its completion by a relatively high-ranking administrator. The unfortunate aspect of the "aggregate approach" was that it often required both high-level knowledge and detailed arithmetic operations by the same individual. Knowing that the aggregate approach would be that used in the full-scale survey, it was decided (as may be seen in Appendix C) that the survey's cover letter would strongly allude to the level of individual required for the instrument's successful completion.

b. Clinical Facilities Data Difficult to Obtain

Although, as anticipated, each respondent was able to gain access to a room-by-room facilities description of his nonclinical instruction facilities, existing square-footage data were very sparse for clinical facilities. In some instances it was difficult for respondents to determine the number of students utilizing a given hospital for educational purposes, much less the hospital's size.

A second difficulty in obtaining clinical facilities data involved the sensitivity of the relationship between the administration of a given school and that of its affiliates. Due to the often complicated amalgamation of hospital and school administrative personnel, the transfer of data from hospital to school required that the request for data be made from the "right" person to the "right" person: and the satisfaction of this dual condition did not guarantee that the requested data were available or, if available, could be obtained due to the effort required.

c. A Continuum of Configurations

It was found that the five professions included in the pretest could adequately be described with a single survey instrument, although some aspects of the particular facilities configurations studied were difficult

to fit into a common mold. In particular, the pretest forms forced respondents to separate clinical from nonclinical teaching space. For cases in which both types of facility were housed in a single building, respondent was required to apportion the building's Gross Square Footage onto two pages of the survey form--a "clinical" and a "nonclinical" page. To obviate such apportionment, and to give respondents the medium for expressing their own particular situation (and ourselves the capability for assessing it), it was decided that if a hospital and a nonclinical instructional area were located in separate buildings or even in different wings of the same building, the separation of these facilities onto two separate pages ("freestanding" hospital versus "allocated" instructional space) would offer ease of reporting and would clearly indicate that they were not completely interchangeable from the utilization point of view. If, on the other hand, the clinical and nonclinical teaching facilities were intermingled in one or more physical structures, the entirety could be reported on a single page. Thus, an ambulatory care facility located in a basic sciences building would be considered an "on-site patient care" facility and reported on the same page as the schools' other instructional space.

d. Ten Year Look-Ahead Too Detailed

Discussions with pretest respondents indicated that the projected facilities information originally requested in the "ten-year look-ahead" was much too detailed. Existing master plans for facilities construction were often not sufficiently developed to provide detail concerning the apportionment of space among classrooms, laboratories, and the like. On the other hand, the existence of a complete planning document was, paradoxically, a problem in its own right since such documents are typically of great length and would have to be completely understood by the individual filling out the questionnaire in order that his response parallel the planning document's content.

In sum, respondents found the survey well conceived and intelligently contrived, although quite time-consuming to complete properly. The con-

sensus seemed to be that responding to the questionnaire could yield a variety of useful information; and having overcome the initial shock at the survey's magnitude, there remained a high motivation to respond and obtain feedback from the survey's analytic phase.

3. Final Preparations for Full-Scale Mailout

Pretest findings were presented to BHM officials during October of 1972. Without significantly affecting the questionnaire's effectiveness with respect to the survey's informational goals, the problems uncovered by the pretest were solved through redesign of the instrument. During this redesign period, a 25% reduction in the requested amount of data was effected; and the form obtained Office of Management and Budget final approval in January of 1973.

C. THE FULL-SCALE MAILOUT

1. The Mailing List

The appropriate portion of the full-scale survey package (see Appendix C) was sent to 462 health professions schools and associated "parent institutions". The mailing list was developed from three sources: the Bureau's computerized records of grant applications; the U.S. Office of Education's 1973 Higher Education Directory and a list of school administrators who were responsible for signing their institutions' NIH construction grant requests.

Although the data from these three sources were basically compatible, it was difficult to determine the appropriate parties to whom the Parent Institution Questionnaire (PIQ) should have been sent. The survey's concept of "parent institution" was that of the "central or coordinating agency which makes facilities available...on a "non-allocated" basis...to at least one health professions school". The latter concept is meant to imply only a facilities usage relationship between a health profession school and that agency for which our PIQ was intended. It was the latter kind of relationship which was inherent in our data sources; and although an attempt was made to match geographically the (conventionally defined) parent institutions' mailing addresses with those of their associated health professions schools, a number of survey packages were sent to state university central administrations and similar agencies which should not have been included in the mailout. Discussion with those who felt that the survey was inapplicable to their particular situation led to clarification of the extant facilities relationships among the institution's health professions schools. As a result, a number of additional forms--and inter-agency transfers--eventually placed 154 parent institution questionnaires in the proper hands.

2. The Survey Universe

It was the intent of this survey to include all of the nation's existing and developing schools of Dentistry, Medicine, Optometry, Osteopathy, Pharmacy, Podiatry, Public Health, and Veterinary Medicine in the public and private

non-profit sectors. In addition to the 154 parent institution agencies, the Health Professions School Questionnaire was sent to the following numbers of schools of each profession:

| | |
|---------------------|-----------|
| Dentistry | 59 |
| Medicine | 114 |
| Optometry | 12 |
| Osteopathy | 8 |
| Pharmacy | 72 |
| Podiatry | 5 |
| Public Health | 18 |
| Veterinary Medicine | <u>20</u> |
| TOTAL | 308 |

Of the above figures, 31 were new or developing with either no students, a partial complement of students, or some combination of students and facilities clearly indicative of developmental status.

The 12 respondents participating in the pretest were accorded individual handling in the full-scale mailout. From the beginning of the pretest, it was hoped that pretest participants would not have to respond again. Unfortunately, the changes to the instrument engendered by the pretest presented certain data incompatibilities between the pretest and final questionnaires; and it was felt that the interests of pretest respondents and the survey would be best served if these incompatibilities were resolved. Our approach was to reorganize and transfer, where possible, the pretest participants' data to a sample copy of the final questionnaire, and include it with the standard package. In most cases, the additional work required of the pretest participants was minimal in comparison with either their past efforts or the efforts of other respondents to the full-scale mailout.

3. Follow-up Procedures and Results

About a week prior to the mailout, an announcement letter was sent to each institution so that responsibility for completing the instrument would already

have been placed by the time the package arrived. It was hoped that the announcement letter would expedite RRC's receipt of the postcard (see Appendix C), thereby giving an early indication of the speed with which each institution was attempting to respond. The full-scale survey mailout was initiated on May 11, 1973, with a July 16, 1973 deadline.

By approximately three weeks after the mailout, 221 postcards had been received. On June 1, letters which contained a second return postcard, similar to the first, were sent to the 241 potential respondents who had not yet returned the first postcard: these follow-up letters had the desired effect in that by June 18, a total of 405 non-duplicate postcards had been received.

In the cover letter, and in the survey questionnaire's instructions, a point was made of assuring the potential respondents that telephone calls were welcome if it were felt that expert RRC support could be useful in the forms' timely and proper completion. As a result, problems of (1) interpretation of instructions and (2) describing particular facilities configurations were expedited through incoming calls which numbered approximately 600.

On July 2, the first telephone follow-up campaign was initiated. The purpose of this procedure was to make contact with the 45 institutions from whom no postcard, telephone, or survey response had yet been received.

During this campaign (and in responding to calls initiated by other respondents), it became evident that the July 16 deadline for completion of the Health Professions School Questionnaires would be difficult for many to meet. A number of verbal extensions on the return date were thus given which, although based on the specific circumstances of each school, were typically about August 15.

In mid-July, a second telephone follow-up was performed involving 80 schools from whom we had had "postcard contact" only. Since we were able to direct our calls to a specific individual and telephone number (as indicated on the return postcards), we were able to obtain commitments from nearly all contacts as to an expected completion date (again, typically between mid-August and the start of September).

Judging from the response to each telephone campaign, it very soon became clear that the individual contacts made in the telephone follow-ups were well worth the often considerable effort demanded. With few exceptions, the institutions contacted had not yet addressed the questionnaire with the effort required for satisfactory response, but did express willingness to do so. The general impression gathered was that failure to make each particular contact may have resulted in continuation of that contact's previous low level of participation. As a result, a third telephone follow-up was begun during the start of September. In this case, 35 schools were involved: those with whom no contact had been made--in either direction--since the initial telephone follow-up.

The fourth and final telephone follow-up for purposes of increasing the response rate was made in mid-October. By this time, a number of schools had indicated their inability or unwillingness to participate in the survey. This campaign excluded such schools, concentrating specifically on those from whom commitments had been obtained or inferred. While the verbal response to this effort was decidedly positive, only 57 additional forms were subsequently received as a result of calls involving 85 schools or parent institutions. Completed questionnaires which arrived as late as December 28, 1973 were included in the analysis phase of the survey effort.

4. The Non-Respondents' Survey

When it became obvious that no amount of follow-up with a particular school would have the desired effect, and that the potential number of non-respondents was significantly large, a plan was put into effect for obtaining some insight into the nature of that portion of the survey universe which would not be accounted for by our survey results.

An internal document was produced which assured that although different questions might be asked of each non-respondent, their data would be a comparable subset of the total questionnaire and thus amenable to analysis. In essence, this document was the basis of an unstructured, informal telephone interview with each non-respondent health profession school that would cooperate.

While a variety of topics was covered, only those data were retained which the basic internal document requested.

Of the 39 non-respondents contacted ("Parent Institutions" were not involved in this campaign) data were obtained from 30. As may be seen from the copy of the internal document (included as Appendix F), the approach taken was to obtain some degree of closure as to the overall size of the survey universe's facilities and student population so that future researchers would be able to place our results in perspective on a national scale. While certainly, many more questions could have been asked, it must be kept in mind that non-respondents had already been contacted many times; and it was felt that a too detailed non-response follow-up would meet with little success. Thus, the kinds of questions asked were general in nature, and, given a discussion with the appropriate individual, could be obtained over the telephone on the "first pass" without much effort on the part of those contacted.

D. FORMS PROCESSING

1. Purpose of This Section

A question which consistently arises in analyzing the results of a mail survey is that of the accuracy of the data. The reader can typically distinguish between measurements and opinions or estimates (e.g., amount of space needed, planned construction for the coming decade); however, for those data which could have been obtained through measurement, it is important that (1) observed shortcomings, if any, be pointed up; or, at the least, (2) the procedures used for editing the data be explained so that the reader may have a firmer grasp of the accuracy of the survey's results.

It is the intent of this section to convey sufficient detail concerning the questionnaires' editing that this assessment may be made. The survey vehicle was very complex in its design, and although the step-by-step instructions provided would, if followed with extreme care, result in a properly completed form, there may have been a tendency to consult the instructions only when absolutely necessary. The existence of this tendency became apparent in many instances of the telephone contact initiated by respondents as they attempted to clarify the manner in which their data should be reported. The manual editing thus followed a highly structured path derived from known problems in the field and problems which it was considered possible might arise.

2. The Manual Edit: Problems Uncovered

The purpose of the manual edit was twofold: first, it offered an opportunity to assess the apparent overall validity of the response it encompassed through checks of internal consistency; and second, it afforded an early opportunity for rectifying obvious errors of a typographical or conceptual nature.

Responses were edited on a campus-by-campus rather than on a school-by-school basis. Although the tie between a set of Health Professions School Questionnaires and the associated Parent Institution Questionnaire was not extremely precise, it was possible to combine the page(s) 3 of the HPSQ with page 2

of the PIQ to determine whether some coordination of all responses had been performed. For example, it may be seen in Appendix C that page 3 requests each respondent to report the number of rooms not allocated to his school but used for the instruction of his students. If he reported more rooms than the sum of (1) those reported on the PIQ and (2) those reported by other schools on that campus as "allocated but shared with others", then here we had an obvious inconsistency.

Once the inter-organizational problems had been outlined or resolved, we could turn our attentions to the responses for an individual school. As each form was processed, those corrections which were obvious were entered by the editors. Those for which data were missing or too complex to correct were held in anticipation of the later telephone campaign in which respondents were called for both clarification of major discrepancies or misunderstandings, and best estimates as to missing data items. Those items which were the most troublesome are listed in the discussion to follow.

a. Freestanding Versus On-Site Patient-Care Facilities

One complicated problem uncovered during our telephone campaign and later editing of questionnaires was that of differentiation of "on-site patient care facilities" from the "freestanding hospitals and clinics". Notwithstanding the definitions supplied, "on-site" was often taken to mean "on-campus", while "freestanding" seemed to imply overtones of organizational structure and function rather than that which was desired--a description of a building's structural separateness from other buildings. As a result, the manual edit procedure attempted to discover and correct questionnaires whose reported facilities had been mixed (e.g., "on-site patient care" facilities were reported on page 5A instead of pages 2A/2B, or structurally "freestanding" hospitals had been reported as being in the same buildings as the instructional facilities of page 2A/2B). In most cases, these difficulties were relatively easy to find since the respondents making such errors would report the facility on both pages 5A and 2A/2B. Later telephone conversations allowed the editors to determine on which page the facility actually belonged, and the questionnaire was corrected accordingly.

b. Growth Potential

A great many respondents did not answer an important series of questions (see page 9 of HPSQ in Appendix C) regarding the resource needs concomitant to a 10% or 20% increase in enrollment. There appear to be 3 major reasons for this omission. In the first place, a design oversight made it very difficult for those without an ongoing construction program to determine that this series of questions applied to them. In the second place, a number of schools were reluctant to answer any questions having to do with facilities needs, future construction plans, or resource needs. A third group who did not respond to this question explained that practical considerations kept them from expanding regardless of the availability of resources.

c. Ongoing Construction: the Post-Construction Inventory

A natural question regarding ongoing construction and remodeling is that of its effects upon the configuration of facilities available for health professions education. It is not sufficient to simply determine the amount of construction being performed, since much of it will result in the abandonment of structures currently being used. Neither is it proper to assume that facilities reported to be in unsatisfactory condition are going to be replaced due to a given ongoing construction program, since the latter could be for the purpose of expanding enrollment or relieving overcrowding rather than for the replacement of obsolete space. As previously described, the approach taken was that of requesting the facilities configuration at such time that the ongoing construction program was completed.

Respondents were occasionally unable to go into detail concerning the effect (on the existing facilities configuration) of the ongoing construction program. Either the facilities planning office (or equivalent) had not yet completed its analysis of the post-construction need for space (and it had, therefore, not yet decided how or whether to use the existing facilities); or the internal make-up of the newly-constructed

building(s) had not yet been specified in the kind of detail necessary to respond to the questionnaire. More often than not, it was possible to obtain such data by simply granting an extension of time for the questionnaire's completion. There still remain, however, cases for which the exact configuration of the post-construction inventory is not available.

d. Clinical Facilities Data

As noted in the pretest, and as expected, respondents found it extremely difficult to obtain detailed square footage data regarding major affiliated hospitals. Often, completed responses listed only the names, ownership and student loading on those hospitals, with similar sparse data being submitted for the so-called "minor affiliates". In the case of minor affiliates, the manual editors concentrated only upon that question relating to the affiliates' potential as major teaching units. Although respondents knew why a given minor affiliate was not a major affiliate, they were, by definition, only remotely acquainted with the specific facilities configuration of each.

e. Utilization Data

A great deal of attention was paid to the editing of those data which would be used for computation of classroom and class laboratory station utilization and room utilization. In fact, a special telephone follow-up campaign was conducted in an effort to assure the data's validity.

The major difficulty with this final telephone contact was that of avoiding bias of the survey results. Just as the error-correction callbacks resulting from the manual (and computerized) editing were being made, it became known that two of the 15 construction grant application evaluation criteria were to be obtained from copies of data submitted on the survey instrument. For this and other reasons, it might be expected that a utilization-directed callback campaign could result in a subconscious effort, on the part of respondents, to improve their reported utilization figures.

For the purposes of the campaign, the schools were divided into four groups of decreasing priority for study:

- (1) schools which had submitted a construction grant application;
- (2) schools whose utilization-related data were internally inconsistent;
- (3) schools whose utilization-related data were internally consistent but for which utilization computation resulted in figures either below 30 or above 100%; and
- (4) all other schools (about 25% of the Respondents).

Schools in the lowest priority group were not called. All other schools were called as many times as necessary in order to elicit the desired data, within reasonable bounds.

Always aware of the need to keep good relationships with the schools, the study team ended the callbacks to unresponsive schools only six weeks prior to the first draft submission of this report.

f. Miscellaneous Difficulties

A large number of respondents had considerable difficulty in obtaining Net Square Footage (Net Assignable Square Footage plus hallways, mechanical areas, maintenance areas, and so on) for both basic biological sciences and clinical sciences instruction areas. Either the NSF fields on the questionnaire were left blank, or the NASF figure was substituted as an estimate of NSF due to the historical use of "NSF" to imply "NASF". NSF figures were thus ultimately discarded, almost in their entirety.

Page 8A of the HPSQ requests the amount of time that a "typical" student at each level of academic attainment spends in classrooms, laboratories, and patient care facilities. These levels of academic attainment should, in all cases, be reflected on page 10, which requests the number of students at each academic level. Occasionally, the data on the two pages did not

correspond by virtue of either (1) the difficulty in obtaining figures regarding the apportionment of graduate students' time; or (2) misunderstanding the definition of graduate student. These questions were ordinarily resolved with each respondent during the telephone follow-up to the manual editing procedure. Best estimates data were accepted regarding time spent in various facilities.

3. The Machine Edit

After each questionnaire was manually edited, keypunched, and key verified, it was processed by a computer program designed to perform those mechanical repetitive tasks and internal consistency checks most amenable to automatic data processing. In addition, this program built the computer-readable files used for generation of the analytical tables used in the report: as a result, the program was required to perform the algorithmic procedures necessary for creating any "derived data fields" (e.g., sums and cross-products) necessary for final report production.

E. FOLLOW-UP AND ASSESSMENT OF NON-RESPONDENTS

The 30 schools with whom non-response follow-up discussions were conducted (including 4 schools which sent non-substantive forms), represent approximately 12% of our respondent population. It is apparent that the facilities configurations of these 30 non-respondents, and, by assumption, the 13 schools which submitted no data at all, are probably not very different from respondents.

Table A.1 supports this finding in its summary figures for the 8 professions surveyed (see column 1). Disparities are greater on a profession-by-profession basis, (see columns 2-9) but it must be realized that the non-respondents' population (of each profession) was quite small and thus subject to large percentage variation.

The total gross square footage reported as controlled by the 30 non-respondent health professions schools was 7,079,000, as compared with 51,862,000 GSF from our 265 respondent schools--a ratio of 7:52 or about 14%. Eighty-two percent of this space was considered satisfactory by the 30 non-respondents, as compared with 83% by the 265 respondents. While respondents reported that about 11.2 million of their existing GSF were HPEA assisted, the non-respondents reported 1.52 million GSF. The portion of controlled GSF constructed with HPEA assistance was thus constant over the two populations, at a percentage just under 22%.

Respondents indicated ongoing new construction (of facilities to be controlled by them) of nearly 15 million GSF, or 29% of their currently controlled Gross Square Footage. 2.7 million GSF of new construction were reported by the 30 non-respondents, or 38% of their currently controlled GSF.

TABLE A.1

COMPARISON OF 265* RESPONDENTS WITH 30 (OF 43) NON-RESPONDENTS (HEALTH PROFESSIONS SCHOOLS ONLY)

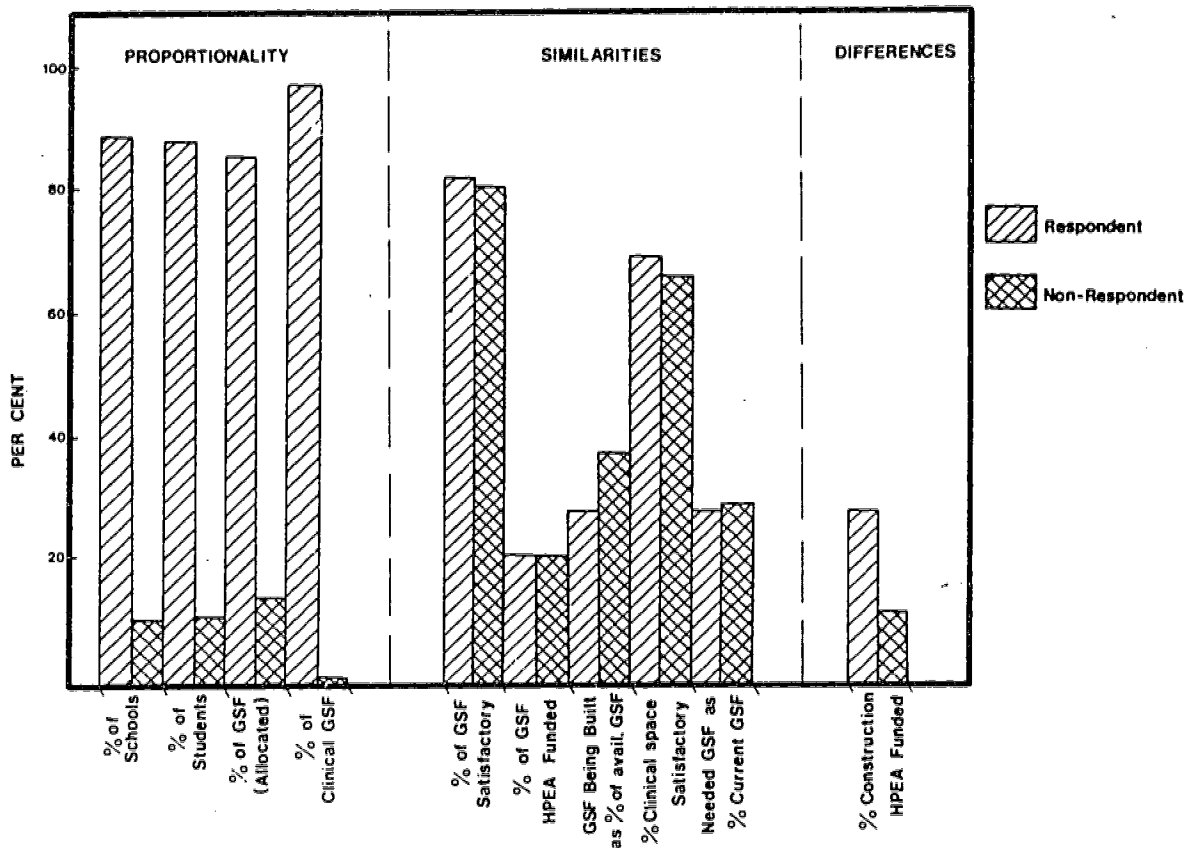
| | (1) | | (2) | | (3) | | (4) | | (5) | | (6) | | (7) | | (8) | | (9) | |
|--|----------|------|-----------|------|----------|------|-----------|------|------------|------|----------|------|----------|------|---------------|------|---------------------|------|
| | TOTAL | | DENTISTRY | | MEDICINE | | OPTOMETRY | | OSTEOPATHY | | PHARMACY | | PODIATRY | | PUBLIC HEALTH | | VETERINARY MEDICINE | |
| | NON-RESP | RESP | NON-RESP | RESP | NON-RESP | RESP | NON-RESP | RESP | NON-RESP | RESP | NON-RESP | RESP | NON-RESP | RESP | NON-RESP | RESP | NON-RESP | RESP |
| number of schools | 265 | 30 | 53 | 5 | 95 | 13 | 10 | 1 | 6 | 2 | 64 | 5 | 5 | n/a | 13 | 3 | 19 | 1 |
| number of schools as a % of respondents' total | 100 | 11 | 100 | 9 | 100 | 14 | 100 | 10 | 100 | 33 | 100 | 8 | 100 | n/a | 100 | 23 | 100 | 5 |
| allocated GSF as a % of respondents' total | 100 | 14 | 100 | 10 | 100 | 15 | 100 | 15 | 100 | 30 | 100 | 9 | 100 | n/a | 100 | 24 | 100 | 7 |
| % of allocated GSF considered satisfactory | 83 | 82 | 82 | 90 | 83 | 79 | 89 | 100 | 90 | 100 | 89 | 64 | 59 | n/a | 81 | 95 | 79 | 100 |
| % of allocated GSF assisted thru HPEA Act | 22 | 22 | 44 | 70 | 18 | 17 | 52 | 72 | 23 | 0 | 16 | 5 | 0 | n/a | 19 | 33 | 13 | 3 |
| GSF assisted thru HPEA Act as % of resp. total | 100 | 14 | 100 | 4 | 100 | 8 | 100 | 1 | 100 | 0 | 100 | 0 | 100 | n/a | 100 | 1 | 100 | 0 |
| GSF under construction as a % of current GSF | 29 | 38 | 35 | 45 | 30 | 43 | 13 | 0 | 31 | 0 | 31 | 0 | 80 | n/a | 2 | 49 | 29 | 0 |
| % of construction cost from HPEA sources | 28 | 12 | 36 | 9 | 25 | 9 | 38 | 0 | 62 | 0 | 41 | 0 | 37 | n/a | 0 | 68 | 33 | 0 |
| GSF needed (as a % of current inventory) | 28 | 29 | 3 | 18 | 7 | 30 | 1 | 0 | 0 | 53 | 4 | 60 | 4 | n/a | 0 | 20 | 8 | 11 |
| clinical GSF as a % of respondents' total | 100 | 2 | | † | | † | | † | | † | | † | | n/a | | † | | † |
| number of students* as % of respondents' total | 100 | 11 | 100 | 9 | 100 | 13 | 100 | 9 | 100 | 42 | 100 | 7 | 100 | n/a | 100 | 36 | 100 | 5 |
| % of clinical GSF considered satisfactory | 70 | 66 | | † | | † | | † | | † | | † | | n/a | | † | | † |

* Includes new and developing schools; excludes non-substantive returns.

† Due to magnitude, this comparison is valid only in the aggregate.

*Source of the enrollment figures for ten of the thirteen nonrespondent schools of Medicine was the Journal of the A.M.A. (Medical Education Issue) November, 1973, Vol. 226 No. 8, pp. 900-901.
n/a indicates "not applicable" since all schools of podiatry responded.

FIGURE A.1
COMPARISON OF 265 RESPONDENTS WITH THIRTY (OF FORTY-THREE) NON-RESPONDENTS



Non-respondents who reported an ongoing construction program appear to have obtained significantly less HPEA assistance per construction dollar than the respondents' population. The respondent group indicated nearly \$1.1 billion in existing construction and remodeling programs, with \$306 million or 28% coming from HPEA associated sources. Non-respondents, on the other hand, reported that only 12% of their construction and remodeling funds were from HPEA sources, with a total expenditure of \$202.6 million and HPEA funding of \$24.8 million.

With regard to facilities controlled by health professions schools, the question of space needs again showed close agreement between respondents and non-

respondents. Respondents indicated total NASF needs as 9.76 million. Transforming this into a rough estimate of GSF, we multiply by 1.5 and obtain approximately 14.6 million GSF, or 28.1% of the current inventory. Non-respondents reported a GSF need of 2.04 million, or 29% of their aggregate fall, 1973 inventory.

Questions regarding clinical facilities paralleled those previously discussed. In comparison with the gross square footage of clinical facilities reported by respondents, the non-respondents represented only 2.3% of the respondents' total of 132 million GSF of "freestanding hospitals". While respondents reported approximately 70% of this space as satisfactory, discussions with non-respondents showed that 66% of their clinical facilities' Gross Square Footage was satisfactory--a close parallel in view of the non-respondents' limited sample size.

The final comparison provided by the non-respondents' follow-up discussions was that of number of students. Again, the parallelism of the two populations was reasonably close. The 12% ratio of 30 non-respondents to 265 respondents was closely matched by the 11.4% ratio of the two populations' health professions student bodies (non-respondents reported 13,700 combined graduate and undergraduate enrollment; while the (265) substantive responses yielded nearly 120,000 students).

Given the high degree of similarity between the data of respondents and that of those non-respondents contacted, one may assume that for imputation to national figures, the 13 schools which responded to neither the full-survey mailout nor the telephone follow-up of non-respondents represent a subpopulation very similar to the rest of the nation's schools. By the same token, any derived measures which are based upon some relative scale (e.g., NASF per student) may be taken to represent national averages which existed as of fall, 1973.

APPENDIX B
SURVEY CONSULTANTS*

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Dr. Frank Rogers, Librarian
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Bowman Gray School of Medicine

Mr. Eugene L. Staples
Director
West Virginia University Hospital

* Note: Positions listed are those as of February 1972.

APPENDIX C
THE SURVEY INSTRUMENTS

C1. General

- a. Announcement letter of 5/1/73 to all survey participants
- b. Follow-up letter of 6/4/73 to postcard non-respondents

C2. Health Professions School Questionnaire

- a. Transmittal letter of 5/11/73 for Health Professions School Package
- b. General Information and Instruction Pamphlet for Health Professions
- c. Health Professions School Questionnaire
- d. Postcard to acknowledge receipt of package (used for both instruments)
- e. Appendix I - Definition of Terms (used for both instruments)
- f. Appendix II - Definition of Room Types (used for both instruments)

C3. Parent Institution Questionnaire

- a. Transmittal letter of 5/11/73 for Parent Institution Package
- b. General Information and Instruction Pamphlet for Parent Institution
- c. Parent Institution Questionnaire



(ANNOUNCEMENT LETTER TO ALL SURVEY PARTICIPANTS)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH
BETHESDA, MARYLAND 20014

BUREAU OF HEALTH MANPOWER EDUCATION

May 1, 1973

The basic mission of the Bureau of Health Manpower Education, National Institutes of Health, is to stimulate the production of health manpower resources. Some believe that insufficient and inadequate health professions education facilities may be among the primary causes that impede the production of the necessary manpower.

The Division of Physician and Health Professions Education of the Bureau of Health Manpower Education is conducting a national mail survey to identify the quality, condition and various utilization factors of facilities in current use in health professions schools.

During the past several months, RRC International, Inc., Troy, New York, developed a survey questionnaire. They were assisted by 13 consultants from the health professions academic sector, as well as the health professions school associations and interested Federal agencies.

The questionnaire was pretested at nine institutions representing a cross section of health professions education in different parts of the country. All of the schools were visited during the pretest to discuss personally the problems involved in compiling the data necessary to complete the questionnaire. The questionnaires, definitions and instructions were subsequently revised and will soon be ready for a full-scale mailing to some 350 other health professions schools and parent universities.

Within the next few weeks, you will receive the survey package. We urge you to examine the contents of this package prior to assigning it to a member of your staff for completion. The questionnaire deals with complex issues, and, as a result, requires a person or group familiar with your institution's facilities and their usage, with your school's educational process and, perhaps most important, with the administrative officials most knowledgeable in these areas.

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Page - 2

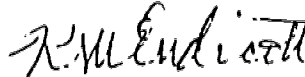
No report or study of the educational facilities approaches the focus and in-depth effort attempted by this survey and we recognize that it imposes a major demand on the respondent institutions. However, the results of the pretest revealed that it provides internal value to the respondent. We believe that such a survey is essential to develop meaningful facilities data.

It is important that the staff of RRC International, Inc., establish communications with each institution so that individual problems may be identified and solved with minimal effort on the part of the respondents. The survey package will contain a post card that should be used to identify the person who will be responsible for compiling and reporting the requested data.

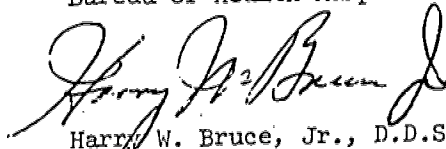
Please be assured that the data you provide will be treated as professionally privileged. The final report prepared from the survey will not identify specific data of any single institution. A copy of this report will be forwarded to each respondent.

We look forward to your cooperation in this important study.

Sincerely yours,



Kenneth M. Endicott, M.D.
Director
Bureau of Health Manpower Education



Harry W. Bruce, Jr., D.D.S.
Director
Division of Physician and
Health Professions Education

b. (FOLLOW-UP LETTER TO POSTCARD NON-RESPONDENTS)

June 4, 1973

On May 11, 1973 we mailed to you the Survey on Health Professions Education Facilities which we are conducting for the Bureau of Health Manpower Education of the National Institutes of Health. The survey contained a postcard which we asked to be returned to us as soon as you designated your survey coordinator. The postcard is important since it permits us to establish communication with your institution and to facilitate solution of any survey problem that you may have with minimal effort on your part.

Our records show that we have not yet received your postcard. In the event it has been misplaced, we are enclosing a duplicate postcard which we ask you to please complete and return as soon as possible. Please contact me immediately on 518-274-8112 if you have not received the survey package.

We thank you for your time and kind assistance in this matter.

Sincerely yours,

A. Baisuck

Dr. Allen Baisuck
Project Director
Health Professions Education
Facilities Survey

AB/ljn
Enclosure

C2. Health Professions School Questionnaire
a. (TRANSMITTAL LETTER FOR HEALTH PROFESSIONS SCHOOL QUESTIONNAIRE PACKAGE)



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH
BETHESDA, MARYLAND 20014

BUREAU OF HEALTH MANPOWER EDUCATION

May 11, 1973

The Health Professions School Questionnaire on facilities as described in our letter of May 1, 1973 is enclosed.

Also enclosed are:

1. A General Information and Instruction Pamphlet citing the purpose and scope of the survey, the page-by-page instructions for completing the questionnaire, and other information;
2. Appendix I - Definitions of Terms Used in the Questionnaire;
3. Appendix II - Definitions of Column Headings on the Questionnaire.

The questionnaire deals with facilities in your school and complements the questionnaire on joint-use facilities that has been forwarded for completion to your parent institution, if applicable.

The complexity of the survey indicates that a person very familiar with your school and the administrative officials be assigned the responsibility for compiling and reporting the requested data.

Personnel of RRC International, Inc., the agency conducting the survey for us, will be on call to help resolve difficulties, or to suggest solutions to common problems. We ask you to complete and return the enclosed post card to RRC as soon as possible to establish communication. Should any question arise which needs clarification, do not hesitate to contact RRC International, Inc., as follows:

Dr. Allen Brinck, Project Director
RRC International, Inc.
1125 Peoples Avenue
Troy, New York 12181
Telephone: (518) 274-8114

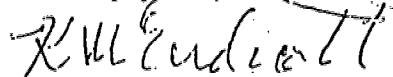
Page - 2

We hope that you will be able to complete and return the questionnaire to RRC by July 16, 1973. The results of this survey are important to everyone, and its success depends upon the effort of each and every respondent. This survey represents an inventory of the total health professions education sector; therefore, a 100% response will improve its usefulness.

We know that the survey imposes a major demand on all respondents, but we think that the results will be of internal value to respondents. The results of the survey will be published and made available to each respondent.

Again, we thank you for your cooperation in this important undertaking.

Sincerely yours,



Kenneth M. Endicott, M.D.
Director
Bureau of Health Manpower Education



Harry W. Bruce, Jr., D.D.S.
Director
Division of Physician and
Health Professions Education

Enclosures

b. GENERAL INFORMATION AND INSTRUCTION PAMPHLET

SURVEY OF HEALTH PROFESSIONS EDUCATION FACILITIES
IN THE PUBLIC AND PRIVATE NONPROFIT INSTITUTIONS
OF THE UNITED STATES--1973

PURPOSE AND SCOPE

One of the basic missions of the Bureau of Health Manpower Education, National Institutes of Health, is to stimulate the production of health manpower resources needed for the delivery of health care in the Nation. Some professional judgment holds that insufficient and inadequate health professions educational facilities may be among the primary causes impeding the production of the necessary manpower.

The Division of Physician and Health Professions Education of the Bureau of Health Manpower Education considers it essential to conduct a national mail survey to verify and identify any existing facility inadequacies in health professions schools. This will be done by type of school, geographic location, and other factors. The survey will also assess the capacity of schools to increase their manpower outputs within existing resources. Survey results, in conjunction with other information, will assist the Executive Branch of the Government and the Congress to define more accurately their goals and priorities in the health area, and will aid in formulating a solution to the facilities aspects of the manpower problem.

Although many reports and studies bear on the facilities problem, none approaches the in-depth effort proposed by this survey. While it is recognized that the survey imposes a major demand on the respondent institutions, it is felt that such a survey is essential if we are to develop meaningful facilities data aimed ultimately at aiding all types of health professions schools and significantly advancing the Nation's health care system.

Please be assured that the data you provide will be treated as professionally privileged. Reports prepared from the survey will not reveal specific data of any single institution. A copy of the final report will be forwarded to each respondent.

SUBJECT MATTER OF SURVEY

Data is sought on the amount, types, and condition of space currently used for undergraduate, graduate, and continuing education in the Nation's health professions schools. Information is also sought as to the numbers of students, faculty and support staff occupying the space, and the degree of overcrowding, if any. The intensity of space utilization will be studied, as well as information concerning the various needs or problems confronting the respondents. Data on ongoing construction and remodeling, and a projection of future such activities round out the survey.

DEVELOPMENT OF THE SURVEY

Initial planning of the survey began in July, 1970. Objectives, uses and justification of the survey were carefully spelled out. A contract was let

with Rensselaer Research Corporation (now, RRC International, Inc.) of Troy, New York to assist in this major undertaking. A panel of 13 consultants, representing the eight health professional disciplines and expertise in teaching support services, libraries and hospitals, was appointed and met periodically with NIH and RRC to provide advice and guidance in the survey. All the health professions school associations, as well as interested Federal and non-Federal agencies, were also consulted and their advice sought. Finally, the survey forms were pretested at nine health professions education institutions prior to the full-scale mailing to approximately 300 existing and developing schools of dentistry, medicine, optometry, osteopathy, pharmacy, podiatry, public health and veterinary medicine.

DEFINITIONS

Due to the variety of health professions schools being surveyed, it is anticipated that much of the terminology relevant to this effort will not be standard over the nation. To help assure compatibility in reporting procedures, those terms most critical to the proper completion of the questionnaire have been defined in Appendices I and II.

Appendix II, containing the definitions of various facilities types (and corresponding directly with the reporting requirements of the survey instrument) has been separated from Appendix I for ease of reference.

DUE DATE AND RETURN OF QUESTIONNAIRES

The questionnaires should be completed and forwarded to the following address by July 16, 1973:

Health Professions Facilities Survey
RRC International, Inc.
1125 Peoples Avenue
Troy, New York 12181

OVERVIEW OF HEALTH PROFESSIONS SCHOOL QUESTIONNAIRE (WHITE)

Each of the approximately 300 health professions schools in the Nation is requested to complete a Health Professions School Questionnaire. If the school is a free-standing institution, this will be the only form submitted. If the school is part of a university, then a second form (the Parent Institution Questionnaire) will also be completed by the parent university or appropriate controlling subagency such as a health sciences center.

- Page 1: Identifies and characterizes Respondent.
- Pages 2A and 2B: Obtain the current inventory of space allocated to Respondent. Request square footage of space by type and condition, amount constructed with HPEA assistance, and numbers of rooms and student stations.
- Page 3: Elicits nature and extent of joint utilization of non-hospital space as of the survey date, and after the completion of ongoing and fully authorized construction and remodeling.
- Page 4: Obtains data on ongoing and fully authorized construction and remodeling of space to be allocated to Respondent. Also, requests an estimate of the space inventory following the completion of the construction and remodeling, and the needs still existing at such time.
- Page 5A/5B: Requests data on the extent to which Respondent uses inpatient, ambulatory and didactic facilities in owned or major affiliated hospitals and clinics; and what construction and remodeling of these facilities is currently underway or planned for completion by 1983.
- Page 5C: Requests data on hospitals and clinics used by Respondent, but not used as major teaching units.
- Page 5D: Obtains data on students' practical experience obtained at health-care facilities not reported on pages 5A/5B or 5C.
- Page 6: Identifies and quantifies the availability of audiovisual facilities for Respondent's academic purposes. Requests supplementary data on animal facilities, instructional space, and room use.
- Pages 7A and 7B: Page 7A depicts the amount of time currently spent in didactic space and patient areas by Respondent's students. If major curriculum changes or innovations are underway, their expected impact is described by completing page 7B.
- Page 8: Provides an opportunity for the Respondent to identify the types and amounts of additional resources required to satisfactorily accommodate his students.
- Page 9: Attempts to determine the levels of student increases possible under varying levels of Federal funding, and solicits Respondent's construction plans and purposes over the next 10 years.

Page 10: Obtains data on the current numbers and future projections of students, faculty and support staff.

Page 11: Solicits Respondent's general comments or clarifications as to any of his responses to the questionnaire.

GENERAL INSTRUCTIONS

1. It is urged that the instructions in this pamphlet be utilized while the questionnaire is being completed. Circled item numbers on the questionnaire indicate items for which necessary instructions have been provided. Should any question arise regarding the proper reporting of space, or interpretation of instructions, definitions, and terminology please call RRC International, Inc. collect at:

518-274-8112

-8114

-8242

Monday through Friday

between the hours of 8:30 A.M. and 5:00 P.M.
(Eastern Time Zone)

Individuals qualified to discuss the form will be available for your assistance.

It is also suggested that much time and effort may be saved if Appendices I and II are studied prior to any attempt to complete the questionnaire.

2. All square footage and dollar figures over the value 500 shall be rounded to the nearest thousand and stated in thousands. For example; 23,748 net assignable square feet shall be reported as 24; 17,500 would be reported as 18; \$17,499 as \$17. Figures under 500 should be rounded and reported as one-place decimal portions of 1000. Thus 380 square feet would be reported as ".4".
3. Unless specifically stated otherwise, "Respondent's students" should be construed to mean Respondent's students of Dentistry, Medicine, Pharmacy, Podiatry, Public Health, Optometry, Osteopathy, or Veterinary Medicine, whichever is applicable. Other students, (e.g., allied health) either taught by Respondent's faculty, using Respondent's facilities, or both, should not be included except as explicitly requested.
4. The survey pretest indicated that a critical first step in the data-gathering phase of Respondent's effort is the development of a room-by-room listing of all facilities currently available for use. Many campuses will have such a listing, at least on a campus-wide basis, as a result of the Office of Education's HEGIS efforts (Higher Education General Information Survey). In other cases, floor plans will provide an acceptable substitute for the room-by-room listing.

For each room available for Respondent's use, the following information should be listed:

- (a) Whether or not room is allocated to Respondent (see definition of "Allocated" in Appendix I).
- (b) Number of hours per (academic) year room is used by Respondent. (Classrooms, class laboratories, and auditoriums only.)
- (c) If room is allocated to Respondent, number of hours per (academic) year it is used by other than "Respondent's students" (as defined above).

- (d) Type of room.
- (e) Ownership of building in which room is located.
- (f) Floor area.
- (g) Number of student stations.
- (h) Condition of the room as related to its use. (Satisfactory for purpose used, needs remodeling, needs replacement).
- (i) Whether or not room was at least partially constructed or remodeled with HPEA assistance.

The same data elements (except for condition of space) should also be obtained for:

- (a) rooms in buildings which are undergoing construction or are fully authorized for construction and will, upon completion, be allocated to respondent; and
- (b) rooms (of the types defined in Appendix II) which are found in owned and major affiliated hospital and clinic facilities.

Proper tallying of subsets of the above data will essentially yield the information necessary to fill out pages 2A, 2B, 3, 4 and 5A/5B.

Furthermore, it is likely that from the school's registrar, scheduling officer, and curriculum planners (or equivalents) can be obtained insights into student instructional load as related to types of space (pages 7A and 7B), and the student, faculty and staff populations (page 10). Data for the remainder of the form will be found in a variety of offices.

5. Please note that not all pages or boxes will be completed by all Respondents. The various pages and the large number of boxes are included in the questionnaires so that every Respondent will be able to provide the entries that pertain to his school. Boxes which do not apply to Respondent may either be filled with zeroes or left blank.
6. All space in residence halls (dormitories, food service areas, etc.) is excluded from this survey.
7. The term "as of the survey date" as used in these instructions (and on the questionnaire) refers to the approximate date of Respondent's receipt of this survey package.
8. Each person responsible for filling out a specific page or pages of the form should be given a complete set of Appendices I and II, these General Instructions and all appropriate specific instructions.

PAGE-BY-PAGE INSTRUCTIONS FOR COMPLETING THE
HEALTH PROFESSIONS SCHOOL QUESTIONNAIRE (WHITE)

◀ PAGE 1 ▶ General Information

General Data from the NIH computer files have already been entered. Please correct any erroneous entries and fill in any items left blank.

Specific

- Item 2 The IMPAC code is an internal code used by NIH. Do not specify this code if it has been left blank.
- Item 4 Check the one designation that best describes the health professional curriculum administered by Respondent. Check item (i) only if Respondent is a combination school (such as a School of Medicine and Dentistry) whose facilities are inseparable by type of school. However, if Respondent is a combination school whose component schools use separate facilities, he should complete a separate questionnaire for each "school" and check the applicable box on each questionnaire. In addition, the two resulting forms should be annotated (see page 11) to reflect the fact that the separation was made.
- Item 5 For inseparable "combination schools" only, enter the number of students (and their full-time equivalents) of each health profession. Include only those students of the eight health professions listed in items (a) through (h) of question 4, above.
- Item 8 See definition of "locale" of Respondent.

◀ PAGE 2A ▶ Owned Facilities Currently Allocated to Respondent

- General
- (a) See definition of "owned facilities".
 - (b) Only those facilities allocated to Respondent should be reported on this page. (See Appendix I for definition of "allocated facilities".)
 - (c) Do not report freestanding hospitals and clinics on this page (see def.). Report only on-site patient-care and associated support facilities (see definition of on-site patient-care facilities in Appendix II).
 - (d) If Respondent is in the process of organizing a new health professions school, and has, as yet, no allocated facilities, write "NEW" across the page in bold letters and continue to page 3. (A new school should complete page 2A if owned facilities are allocated to it, but it has, as yet, no students.)

Specific

- Item 1 See Appendix I for definitions of Net Assignable Square Feet (NASF), Gross Square Feet (GSF) and Net Square Feet (NSF). In cases where only a part of an entire building is considered to be allocated to Respondent, find the ratio of Respondent's NASF to the building's total NASF and use this percentage as the multiplier for determining the portion of the building's GSF and NSF that is allocated to Respondent.

- Item 2 See Appendix I for the definition of HPEA. Even if a given room was only partially funded through the HPEA Act, include that room's total net assignable square footage.
- Item 3 Report in columns B through K the total net assignable square feet (NASF) of each type of space (including service areas) referred to in the column headings. Please see Appendix II for the types of space to be reported under each column heading. Do not include facilities being constructed as of the survey date (these will be reported on page 4). Space which is currently unavailable for use due to remodeling should be reported as "other space" (column K).
- Item 6 The number of student stations in library space may be approximated by a count of the number of chairs available for student seating in all library areas.
- Item 7 Do not include service areas when reporting number of rooms.
- Item 9 For each type of space, the need for additional NASF is equal to the total NASF needed (to accommodate current enrollment) minus the NASF available for use (regardless of ownership) as of the survey date.
- In determining NASF available, do not include space involved in ongoing construction and remodeling unless it represents space which is currently usable. (It is recognized that completion of ongoing construction and remodeling may reduce some or all of the needs reported.)
- Item 10 The list below indicates five possible reasons for the needs expressed in item 9. For each type of space needed, enter in item 10 the letter code of the reason which best applies:
- A. Relief of overcrowding (Code = A)
 - B. Poor physical condition (Code = B)
 - C. Replacing obsolete space (Code = C)
 - D. Missing from current inventory (Code = D)
 - E. Other (specify on page 11) (Code = E).
- Items 13-17 Do not report freestanding hospital or clinic facilities (see Appendix I for definition of "freestanding") in this section. Use items 13-14 to report on-site inpatient care facilities and items 15-17 to report on-site ambulatory care facilities. Respondent should consult the definition of "Respondent's students".

If inpatient or ambulatory facilities (or both) are used by students other than "Respondent's students" as defined, please use page 11 to report the average number of other students using the space at any one time. Separate ambulatory from inpatient facilities as appropriate.

◀ PAGE 2B ▶ Rented, Leased or Other Facilities Currently Allocated to Respondent

Apply instructions from page 2A as follows, including "General", b-d:

For item 1 on page 2B: see instruction for item 1 of page 2A

| | |
|------------|-------|
| 2..... | 3 |
| 4..... | 6 |
| 5..... | 7 |
| 7..... | 9 |
| 8..... | 10 |
| 11-15..... | 13-17 |

Important: Those Respondents who reported existing needs on page 2A, items 9-11 should not fill out items 7-9 on page 2B.

◀ PAGE 3 ▶ Joint-Use Space

General

This page elicits the nature and extent to which non-clinical facilities are (or will be) jointly-utilized by health professions schools. The page covers (1) space used by, but not allocated to, Respondent; and (2) space allocated to Respondent but also used by other than "Respondent's students" (e.g., allied health or other health professions).

For reporting purposes, combine "owned" space with space that is not owned.

Specific

A. Current Usage

Item 1 Report in columns A and B all rooms (excluding service areas) which
Columns satisfy both of the following criteria:
A and B

- (1) the room is not allocated to Respondent;
- (2) during 25 or more hours per academic year, at least 25% of the room's occupants are "Respondent's students" (see definition).

Item 1 Report in columns C and D all rooms (excluding service areas) which
Columns satisfy both of the following criteria:
C and D

- (1) the room is allocated to Respondent;
- (2) during 25 or more hours per academic year, at least 25% of the room's occupants are not "Respondent's students".

- Item 3 Report in columns A and B the total number of hours each type of room in item 1 is used by "Respondent's students" during the academic year. For example, if classroom A is used 33 hours, and classroom K is used 61 hours, report the total hours used as 94. Employ similar methods in reporting other disciplines' usage of Respondent's allocated space in columns C and D. Report in columns C and D the total number of hours each type of room in item 1 is used by other than "Respondent's students" during the academic year.

B. Usage Upon Completion of Ongoing Construction and Remodeling

Apply the sense of the instructions for section A.

◀ PAGE 4 ▶ Ongoing and Fully Authorized Construction and Remodeling

- General
- (a) Report only that construction and remodeling of space which will be allocated to Respondent.
 - (b) Do not report any past construction or remodeling.
 - (c) Exclude construction and remodeling of freestanding hospitals or clinics. (See Appendix I for definition of "freestanding".)

Specific

- Items These items attempt to obtain a total overview of the ongoing construction and remodeling of space allocated to Respondent. (See Appendix I for definitions of gross and net square feet.) Respondent should report only his pro-rata share of the costs, GSF and NSF of buildings which are also to be occupied by other schools. This share may be computed by finding the NASF of the entire building, and calculating the fraction which is allocated to Respondent. This fraction may then be applied to both cost and square footage figures prior to posting.
- A.1., A.2.
- In column d ("NSF of HPEA Assist"), enter the Net Square Footage of space whose remodeling or construction was at least partially funded with HPEA assistance. Respondent should enter only that portion of the HPEA funded NSF considered allocated to his particular school.
- Items Answer only if ongoing and fully authorized construction and remodeling will result in a change to the number of beds and/or ambulatory patient stations used by Respondent's students. If the number of beds and/or patient stations will decrease, report the decrease by inserting a minus sign in front of the difference.
- B.1., B.2.
- Items The sum of items C.1.-C.4. must agree with item A.2., column b. Where purposes of construction overlap, and clear-cut separations by the four purposes are difficult, please provide your best estimates.
- C.1.-C.4.
- Items Report the same fractional parts (of the actual amounts from each source) as used in items A.1. and A.2, unless more specific information is available.
- D.2.a.- D.2.i.

when reporting numbers of rooms in room areas, no room areas.

Item G.1. Page 10, items 1 and 8 (column C) request the number of "Respondent's students" to be accommodated after completion of ongoing construction and remodeling. If this construction and remodeling will not satisfactorily accommodate the number of students reported, express the additional facility need here.

Item G.2. The list below indicates five possible reasons for the needs expressed in item G.1. For each type of space needed, enter in item G.2. the letter code of the reason which best applies:

- A. Relief of overcrowding (Code = A)
- B. Poor physical condition (Code = B)
- C. Replacing obsolete space (Code = C)
- D. Missing from the inventory (Code = D)
- E. Other (specify on page 11) (Code = E)

◀ PAGE 5A/5B ▶ Major Hospitals and Clinics Used by Respondent

General

- (a) A separate page 5A/5B should be prepared for each owned or major affiliated hospital or clinic used by the Respondent. See Appendix I for the definition of a "major affiliated hospital or clinic" before completing this page. (Use supply of extra copies of page 5A/5B, as necessary.)
- (b) Column H (Administrative Offices) should include only those offices assigned to administrative personnel of the educational program (e.g., Dean of Students and Registrar). Such offices as the admitting office, hospital administrator, finance office, maintenance office, etc., should be excluded.
- (c) Column I (Animal Facilities) excludes laboratory and associated service facilities for animals used for diagnostic purposes. Should such diagnostic laboratories be used for student instruction, they should be reported on page 5D.

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IMPAC CODE _____

- (e) See Appendix I for definitions of GSF (Gross Square Feet), NSF (Net Square Feet) and NASF (Net Assignable Square Feet).

Section A

Specific

- Item 3 See Appendix I for definition of "Locale".
- Item 4 Report the GSF of the entire hospital or clinic even though Respondent may use only a portion of that facility for academic purposes.
- Items 5 and 6 Even if a given area (or room) was only partially funded through the HPEA Act (see definition) include that area's total square footage. Consider only assistance to or through Respondent. Exclude current projec
- Item 7 Schools of Veterinary Medicine should substitute ANIMAL HOLDING UNITS for "Beds". If two (or more) schools make use of the same beds, and it is thus not possible to distinguish between Respondent's beds and others, please indicate on page 11 the percentage of the students from the two (or more) schools which are "Respondent's students" (see definition).
- Item 8 See definition of "Respondent's students".
- Item 9b For a given room, the number of patient stations shall be the number of patients who could be treated simultaneously in that room. Report the total number of patient stations in all examining and treatment rooms available for use by "Respondent's students".
- Item 11 See definition of "Respondent's students".
- Item 14 Do not include service areas when reporting number of rooms.
- Item 15 For each type of space, the need for additional NASF is equal to the total NASF needed (for "Respondent's students"--see Appendix I for definition) minus the NASF available for use as of the survey date.
- In determining NASF available, do not include space involved in ongoing construction and remodeling unless it represents space which is currently usable. (It is recognized that completion of ongoing construction and remodeling may reduce some or all of the needs reported.)
- Item 16 The list below indicates five possible reasons for the needs expressed in item 15. For each type of space needed, enter in item 16 the letter code of the reason which best applies:

- A. Relief of overcrowding (Code = A)
- B. Poor physical condition (Code = B)
- C. Replacing obsolete space (Code = C)
- D. Missing from current inventory (Code = D)
- E. Other (specify on page 11) (Code = E).

available for use by Respondent upon completion.

(b) Do not report any past construction or remodeling.

Specific

Item 1 Respondent should report only that portion of the total construction
Column 1 or remodeling cost associated with the part of the building available
for his use. Unless such figures are directly obtainable, report the
following fractions of both the total construction and remodeling costs:

NASF of Construction (remodeling) Available for use by Respondent
Total NASF of Construction (remodeling) of Building

If the reported space will be available for use by two or more
health professions schools which are constructing (or remodeling)
the space as a joint effort, then:

- (a) the entire cost should be reported by (each) Respondent; and
- (b) page 11 should be used to identify the other health professions
schools involved in the joint effort.

Columns 2 Unless the requested figures are directly obtainable, report the
and 3 same fractions of GSF and NSF, respectively, as were computed for
answering the cost questions of column 1.

Column 4 Enter the Net Square Footage of space whose remodeling or construction was
at least partially funded with HPEA assistance. Thus, if remodeling of a given
room was only partially funded with HPEA assistance, include
the total Net Square Footage of that room.

Item 2 Answer only if ongoing and fully authorized construction and remodeling
will result in a change to the number of beds and/or patient stations
used by Respondent's students. If the number of beds and/or patient
stations will decrease, report the decrease by inserting a minus sign
in front of the difference.

Item 3 The sum of a, b, c and d must agree with item 1b, column 2. Where
purposes of construction overlap, and clear-cut separations by
the four purposes are difficult, please provide your best estimates.

Item 4b For items 4b.1-4b.9, report the same fractional part of the actual
amount from each source as was computed for obtaining the total
cost figures in items 1a and 1b, column 1.

Item 7 In estimating the remaining need, first estimate that enrollment to be accommodated upon completion of the construction and remodeling.

Item 8 See instruction for item 16 in section A.

Section C

Item 1 Answer all questions in terms of space available for use by "Respondent's students". Only pro-rata shares of GSF and NSF should be reported unless two or more schools will have access to the same space. Again, in this latter case, the total GSF and NSF should be reported, and the names of the cooperating schools entered on page 11.

Item 2 The sum of lines a, b, c and d should equal the figure reported in item C.1.

◀ PAGE 5C ▶ Other Hospitals and Clinics Used by Respondent

- General
- (a) Report each hospital and clinic (used by Respondent) that is neither owned nor used as a major teaching unit.
 - (b) Schools of Veterinary medicine should substitute ANIMAL HOLDING UNITS for beds.
 - (c) Although students may, as part of their formal education, obtain practical experience in private practitioners' offices or other facilities of various types, exclude such facilities from this page (they will be reported on page 5D).

Specific

Columns J and K See definition of "Respondent's students".

Column N For a given room, the number of patient stations shall be the number of patients who could be treated simultaneously in that room.

Columns O and P See definition of "Respondent's students".

Column R There are many reasons why a given hospital or clinic may not currently be used as a major affiliate. For each hospital or clinic reported, select, from the list below, the one reason which best applies and enter the corresponding letter in column R.

A: Lack of needed teaching facilities specified in columns A-H.

B: Distance from didactic facilities.

C: Lack needed faculty and/or staff.

D: Interpersonal relationships between administrations must be strengthened.

(continued)

3: No problem - would make adequate major affiliate, but not currently needed by Respondent.

◀ PAGE 5D ▶ Other Facilities Available for Students' Practical Experience

General If a part of the Respondent's curriculum involves activities in which students obtain practical experience outside of the clinical settings reported on pages 2A, 2B, 5A/5B and 5C, please report the nature of this experience on this page. Due to the wide variety of possibilities involved, it is requested that the Respondent report the following for each different type of experience:

- (a) The nature of the facility used;
- (b) The number of facilities of similar nature;
- (c) The number of students using the facility per year;
- (d) The type of activity best describing the nature of the practical experience;
- (e) The number of units of such activity available per year for Respondent's student instruction.

The figure below illustrates possible content of page 5D, and indicates a sample of the kinds of activities which might be reported by schools of different types. Note that multiple facilities of the same type are aggregated.

| FACILITY TYPE | NUMBER OF SUCH FACILITIES | NUMBER OF RESPONDENT'S STUDENTS USING THESE FACILITIES PER YEAR | TYPE OF ACTIVITY | NUMBER OF ACTIVITY UNITS PER YR. |
|-----------------------------------|---------------------------|---|----------------------|----------------------------------|
| Physician's Office | 20 | 25 | Patient Visits | 1,525 |
| C.E.O. Neighborhood Health Center | 1 | 50 | Patient Visits | 20,300 |
| Poison Control Center | 2 | 60 | Telephone Call | 4,200 |
| Community Pharmacies | 6 | 50 | Prescriptions Filled | 62,300 |
| Veterinarian's Offices | 8 | 10 | Patient Visits | 2,500 |
| Farms | 4 | 25 | Farm Visits | 6,200 |

◀ PAGE 6 ▶ Audiovisual Facilities and Room Usage Data

Part A

General Refer to Appendix I for the definition of "Audiovisual Teaching Support Facilities".

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Items 1-5 Include all facilities available for use, whether or not they are located in space allocated to Respondent.

Item 6 Answer "yes" to this question only if the "Office of Audiovisual Services" (or equivalent) is within the administrative hierarchy of Respondent's health professions school.

Part B Refer to Appendix I for the definition of "basic biological" and "clinical sciences" instruction. Use line B3 for those instances in which the primary use of instructional facilities cannot be classified as either basic biological science or clinical science. Do not include rooms located in freestanding hospitals or clinics.

Part C "All animal facilities" means those found in both the nonclinical and clinical settings (pages 2A and 2B column I and page(s) 5A/5B column I). The three percentages reported should total 100% unless Respondent has no such facilities. In the latter case, zeroes should be entered in all three boxes. As per the definition of "Animal Facilities", schools of Veterinary medicine should exclude areas for animal patient care.

Part D

- General
- (a) If Respondent is a newly forming school which has, as yet, no students, skip this section.
 - (b) See Appendix II for definition of "Special Purpose Laboratory".
 - (c) Although service areas should not be included in the count of rooms (columns A, D, and G), a room should be considered utilized during the use of its associated service area if such use makes the room itself unavailable.
 - (d) Include allocated space only (from pages 2A and 2B).

Specific

Items D.1.-D.6.

Columns A, D, G Please note that both classroom-type and auditorium facilities are included.

Columns B, E, H The room usage data for columns B, E and H may be computed as follows:

Step 1 - For each room of a given size and type (e.g., the 1-16 station classrooms of item D.1 column A), find the total number of hours per academic year that the room is occupied for academic purposes.

(continued)

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(in this case item D.1., column B).

Step 4 - Repeat the process for each size and room type.

Columns C, F, I Curriculum changes and other factors can, over time, cause a mismatch between available room sizes and needed room sizes. For each room size, enter the letter code (see list, below) which best describes the usage problem for that size.

- A. Usually overcrowded to a minor degree (Code = A)
- B. Usually overcrowded to a major degree (Code = B)
- C. For most purposes, size is too large: typically, less than 25% of stations are occupied when room is in use (Code = C)
- D. For most purposes, size is too large: typically, between 25% and 60% of stations are occupied when room is in use (Code = D)
- E. Size is proper for our purposes, but need more rooms of that size (Code = E)
- F. Other problem (specify on page 11) (Code = F)
- G. No particular problem at present (Code = G)

Part E Enter the code letter which best describes the match between current enrollment and the capacity of existing Library space allocated to Respondent:

- A. Room for 20% enrollment growth or more (Code = A)
- B. Some room for enrollment growth (less than 20%) (Code = B)
- C. Currently a good match (Code = C)
- D. Somewhat overcrowded (Code = D)
- E. Highly overcrowded (Code = E)

◀ PAGE 7A ▶ Current Instruction of Respondent's Students

- General
- (a) Report educational activities of "Respondent's students", only. (See definition.)
 - (b) Columns A-D represent time spent in the classrooms, class laboratories, and on-site patient care areas reported on pages 2A, 2B, and 3. Columns E-H refer only to time spent in owned and major affiliated hospitals and clinics reported on pages 5A/5B.

level of Respondent's instruction being obtained by the student. Thus, all schools with an undergraduate program should report students in the first year of that program as "first year undergraduates", regardless of their previous education. (These levels will not necessarily coincide with the terms "first year student", "second year student", etc., defined under the capitation provisions of the Comprehensive Health Manpower Training Act of 1971.)

Items For those schools in which the length of the academic week or year varies by level of instruction, Respondent should indicate the time period applicable to the majority of the students at the school. If Respondent needs to clarify this situation, he may do so on page 11.

◀ PAGE 7B ▶ Instruction of Respondent's Students: Following Major Curriculum Changes or Innovations

- General
- (a) Complete page 7B only if major curriculum changes or innovations are anticipated or underway. Please provide your best estimates of what the students' activities will be after these changes are implemented.
 - (b) Major curriculum changes and innovations include: significant compression in the number of years of health professions education; major redesign of curricula; increased usage of auto-tutorial, computer-assisted, or audiovisual devices; lengthening of the academic year; etc.
 - (c) Employ instructions for Page 7A.

◀ PAGE 8 ▶ Growth Potential

Specific

Item 3 Answer items 3a and b as though:

- (a) all ongoing and fully authorized construction and remodeling (if any) have been completed;
- (b) any curriculum changes planned during the construction period have been implemented; and
- (c) the size of the student body is that which is to be accommodated upon completion of ongoing and fully authorized construction and remodeling (see page 10, column C).

Enter the needed resources in columns A-N in terms of FTE's, thousands of dollars, thousands of NASF, and numbers, as per column headings.

Item 4 Please enter in the stub, the percentage and number by which the Respondent feels his enrollment as of the survey date could be increased in the short-term (less than two years). Enter required resources in columns A-N in terms of FTE's, thousands of dollars, thousands of NASF, and numbers, as per column headings.

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construction or remodeling codes and regulations; absence of an auditorium; shortage of parking facilities; transportation facilities.

◀ PAGE 9 ▶

Section B Future Construction and Remodeling

- General (a) The estimates reported should reflect as realistically as possible such constraints as the projected availability of construction funds, planning lead-time, available operating funds, desired growth rate in the size of the health professional student enrollment, and availability of faculty.
- (b) Except for on-site patient care facilities, (see definition) the section excludes hospitals and clinics.

Specific

- Item 3 The sum of items 3a-3d must agree with item 1. Where purposes of construction overlap, and clear-cut separations by the four purposes are difficult, please provide your best estimates.

◀ PAGE 10 ▶ Students, Faculty and Support Staff

- General Please note the instruction (concerning first year students, second year students, etc.) for items 1-6, page 7A of the questionnaire.

Specific

- Items 1-10 See Appendix I for definition of "Respondent's Students".
- Items 11-20 Include all students using Respondent's facilities but not considered "Respondent's Students" for the purposes of this survey.
- Items 16-20 See Appendix I for definitions of "other students".
- Item 23 See Appendix I for the definition of "support staff".

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
NATIONAL INSTITUTES OF HEALTH
BUREAU OF HEALTH MANPOWER EDUCATION

SURVEY OF HEALTH PROFESSIONS EDUCATION FACILITIES
IN THE NONPROFIT SECTOR: 1973
HEALTH PROFESSIONS SCHOOL QUESTIONNAIRE

| | | | | | | | | | | | | | | | | | |
|---------------------------|--|--------------|------|-------|------------|---------------------------|--------------------|--------------|--|--|--|---------------------------|--------------------|--------------|--|--|--|
| 1. | NAME OF HEALTH PROFESSIONS SCHOOL: | | | ② | IMPAC CODE | | | | | | | | | | | | |
| | ADDRESS: | STREET | CITY | STATE | ZIP | | | | | | | | | | | | |
| 3. | NAME OF PARENT INSTITUTION (IF APPLICABLE) | | | | | | | | | | | | | | | | |
| | ADDRESS: | STREET | CITY | STATE | ZIP | | | | | | | | | | | | |
| ④ | TYPE OF HEALTH PROFESSIONS SCHOOL (CHECK (✓) ONE): <div style="display: flex; justify-content: space-between;"> <div> (a) <input type="checkbox"/> DENTISTRY (b) <input type="checkbox"/> MEDICINE (c) <input type="checkbox"/> OPTOMETRY </div> <div> (d) <input checked="" type="checkbox"/> OSTEOPATHY (e) <input type="checkbox"/> PHARMACY (f) <input type="checkbox"/> PODIATRY </div> <div> (g) <input type="checkbox"/> PUBLIC HEALTH (h) <input type="checkbox"/> VETERINARY MEDICINE (i) <input type="checkbox"/> COMBINATION SCHOOL (Specify professions in item 5 below) </div> </div> | | | | | | | | | | | | | | | | |
| ⑤ | (ANSWER ONLY IF RESPONDENT CHECKED BOX (i) IN ITEM 4) PLEASE ENTER, FOR EACH HEALTH PROFESSION, THE NUMBER OF STUDENTS AND THEIR FULL-TIME EQUIVALENTS: <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">NAME OF HEALTH PROFESSION</td> <td style="width: 20%;">NUMBER OF STUDENTS</td> <td style="width: 20%;">FTE STUDENTS</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td>NAME OF HEALTH PROFESSION</td> <td>NUMBER OF STUDENTS</td> <td>FTE STUDENTS</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table> | | | | | NAME OF HEALTH PROFESSION | NUMBER OF STUDENTS | FTE STUDENTS | | | | NAME OF HEALTH PROFESSION | NUMBER OF STUDENTS | FTE STUDENTS | | | |
| NAME OF HEALTH PROFESSION | NUMBER OF STUDENTS | FTE STUDENTS | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| NAME OF HEALTH PROFESSION | NUMBER OF STUDENTS | FTE STUDENTS | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | |
| 6. | INDIVIDUAL WHO MAY BE CONTACTED REGARDING PREPARATION OF THIS QUESTIONNAIRE: NAME: _____ TITLE: _____ TELEPHONE NO. _____ EXT. _____ | | | | | | | | | | | | | | | | |
| 7. | TYPE OF CONTROL OF RESPONDENT (CHECK (✓) ONE): (a) <input type="checkbox"/> PRIVATE NONPROFIT (b) <input type="checkbox"/> PUBLIC (State) (c) <input type="checkbox"/> PUBLIC (County) (d) <input type="checkbox"/> PUBLIC (City) (e) <input type="checkbox"/> OTHER (Specify) _____ | | | | | | | | | | | | | | | | |
| ⑧ | LOCALE OF ADDRESS IN ITEM 1: (a) <input type="checkbox"/> INNER CITY (b) <input type="checkbox"/> OUTER CITY (c) <input type="checkbox"/> SUBURBAN (d) <input type="checkbox"/> RURAL | | | | | | | | | | | | | | | | |
| 9. | UPON COMPLETION, THIS FORM SHOULD BE FORWARDED THROUGH THE PARENT INSTITUTION (IF APPROPRIATE) BY <u>JUL 16 1973</u> TO: _____ HEALTH PROFESSIONS FACILITIES SURVEY RRC INTERNATIONAL, INC. 1125 PEOPLES AVENUE TROY, NEW YORK 12181 | | | | | | | | | | | | | | | | |

PROCEED TO THE NEXT PAGE.

1) TOTAL GROSS AND NET SQUARE FEET OF OWNED FACILITIES ALLOCATED TO RESPONDENT

| GSF | NSF |
|-----|-----|
| | |

2) NUMBER OF THE NET SQUARE FEET (NSF) REPORTED IN ITEM 1 THAT WERE
CONSTRUCTED OR REMODELED WITH HPEA ASSISTANCE

| CONSTR'D | REMOD'LD |
|----------|----------|
| | |

LOCATED FACILITIES CURRENTLY AVAILABLE

| | | TOTAL OF COLUMNS B - K | CLASSROOM - TYPE INSTRUCTIONAL SPACE | CLASS LABORATORIES | RESEARCH AND RESEARCH TRAINING SPACE | LIBRARY SPACE | AUDITORIUMS | FACULTY OFFICES | ADMINISTRATIVE OFFICES AND AREAS | ANIMAL FACILITIES | ON-SITE PATIENT CARE FACILITIES | OTHER SPACE |
|----|---|------------------------|---|--------------------|---|---------------|-------------|-----------------|-------------------------------------|-------------------|------------------------------------|-------------|
| | | A | B | C | D | E | F | G | H | I | J | K |
| 3) | NASF ALLOCATED TO RESPONDENT | | | | | | | | | | | |
| 4. | NASF OF LINE 3 WHICH ARE SATISFACTORY FOR PROGRAM PURPOSE | | | | | | | | | | | |
| 5. | CHECK (✓) EACH TYPE OF SPACE CONSTRUCTED OR REMODELED WITH HPEA ASSISTANCE | | | | | | | | | | | |
| 6) | NUMBER OF STUDENT STATIONS ON LINE 3 | | | | | | | | | | | |
| 7) | NUMBER OF ROOMS ON LINE 3 | | | | | | | | | | | |
| 8. | NASF OF LINE 3 PREDOMINANTLY USED FOR GRADUATE INSTRUCTION | | | | | | | | | | | |

FACILITIES CURRENTLY NEEDED

| | | | | | | | | | | | | |
|-----|--|--|--|--|--|--|--|--|--|--|--|--|
| 9) | ADDITIONAL NASF CURRENTLY NEEDED TO ACCOMMODATE PRESENT ENROLLMENT | | | | | | | | | | | |
| 10) | FOR EACH TYPE OF SPACE NEEDED, USE LETTER CODE TO INDICATE THE REASON | | | | | | | | | | | |
| 11. | WHAT PORTION (in NASF) OF EACH ENTRY IN ITEM 9 IS ATTRIBUTABLE TO OVERCROWDING? | | | | | | | | | | | |

12a. NASF NOT SATISFACTORY FOR PROGRAM PURPOSE (ITEM 3 COLUMN A MINUS ITEM 4 COLUMN A)

12b. IF ITEM 12a. IS NOT ZERO, HOW MANY NASF OF THIS UNSATISFACTORY
SPACE COULD BE MADE SATISFACTORY THROUGH REMODELING?

ANSWER ITEMS 13-17 ONLY IF ON-SITE PATIENT CARE FACILITIES WERE REPORTED IN ITEM 3, COLUMN J ABOVE

ON-SITE INPATIENT FACILITIES

13) BEDS USED FOR RESPONDENT'S STUDENT INSTRUCTION

| NUMBER | AVERAGE DAILY PATIENT LOAD (ADPL) |
|-----------|--------------------------------------|
| a | b |
| UNDERGRAD | GRADUATE |
| a | b |

14. AVERAGE NUMBER OF RESPONDENT'S STUDENTS USING THESE FACILITIES AT ANY ONE TIME

ON-SITE AMBULATORY FACILITIES

15) EXAMINING AND TREATMENT ROOMS USED BY RESPONDENT

| NUMBER OF ROOMS | TOTAL PATIENT STATIONS |
|--------------------|---------------------------|
| a | b |

16. NUMBER OF OUTPATIENT VISITS PER YEAR APPLIED TO RESPONDENT'S STUDENT INSTRUCTION

17. AVERAGE NUMBER OF RESPONDENT'S STUDENTS USING THESE FACILITIES AT ANY ONE TIME

| UNDERGRAD | GRADUATE |
|-----------|----------|
| a | b |

☐ CHECK (/) THE BOX TO THE LEFT IF THE RESPONDENT HAS NO RENTED, LEASED OR OTHER ALLOCATED FACILITIES TO REPORT, AND PROCEED TO THE NEXT PAGE.

① TOTAL NET SQUARE FEET OF RENTED, LEASED OR OTHER FACILITIES ALLOCATED TO RESPONDENT

**ALLOCATED FACILITIES
CURRENTLY AVAILABLE**

| | | TOTAL OF COLUMNS B-K | | | | | | | | | | |
|----|--|--------------------------------------|---|---|---|---|---|---|---|---|---|---|
| | | CLASSROOM-TYPE INSTRUCTIONAL SPACE | | | | | | | | | | |
| | | CLASS LABORATORIES | | | | | | | | | | |
| | | RESEARCH AND RESEARCH TRAINING SPACE | | | | | | | | | | |
| | | LIBRARY SPACE | | | | | | | | | | |
| | | AUDITORIUMS | | | | | | | | | | |
| | | FACULTY OFFICES | | | | | | | | | | |
| | | ADMINISTRATIVE OFFICES AND AREAS | | | | | | | | | | |
| | | ANIMAL FACILITIES | | | | | | | | | | |
| | | ON-SITE PATIENT CARE FACILITIES | | | | | | | | | | |
| | | OTHER SPACE | | | | | | | | | | |
| | | A | B | C | D | E | F | G | H | I | J | K |
| ② | NASF ALLOCATED TO RESPONDENT | | | | | | | | | | | |
| 3. | NASF OF LINE 2 WHICH ARE SATISFACTORY FOR PROGRAM PURPOSE | | | | | | | | | | | |
| ④ | NUMBER OF STUDENT STATIONS ON LINE 2 | | | | | | | | | | | |
| ⑤ | NUMBER OF ROOMS ON LINE 2 | | | | | | | | | | | |
| 6. | NASF OF LINE 2 PREDOMINANTLY USED FOR GRADUATE INSTRUCTION | | | | | | | | | | | |

FACILITIES CURRENTLY NEEDED

| | | | | | | | | | | | | |
|----|---|--|--|--|--|--|--|--|--|--|--|--|
| ⑦ | ADDITIONAL NASF CURRENTLY NEEDED TO ACCOMMODATE PRESENT ENROLLMENT | | | | | | | | | | | |
| ⑧ | FOR EACH TYPE OF SPACE NEEDED, USE LETTER CODE TO INDICATE THE REASON | | | | | | | | | | | |
| 9. | WHAT PORTION (IN NASF) OF EACH ENTRY IN ITEM 7 IS ATTRIBUTABLE TO OVERCROWDING? | | | | | | | | | | | |

10a. NASF NOT SATISFACTORY FOR PROGRAM PURPOSE (= ITEM 2 COLUMN A MINUS ITEM 3 COLUMN A)

10b. IF ITEM 10a. IS NOT ZERO, HOW MANY NASF OF THIS UNSATISFACTORY SPACE COULD BE MADE SATISFACTORY THROUGH REMODELING?

ANSWER ITEMS 11-15 ONLY IF ON-SITE PATIENT CARE FACILITIES WERE REPORTED IN ITEM 2 COLUMN J ABOVE

ON-SITE INPATIENT FACILITIES

⑪ BEDS USED FOR RESPONDENT'S STUDENT INSTRUCTION

| NUMBER | AVERAGE DAILY PATIENT LOAD (ADPL) |
|--------|-----------------------------------|
| a | b |

12. AVERAGE NUMBER OF RESPONDENT'S STUDENTS USING THESE FACILITIES AT ANY ONE TIME

| UNDERGRAD | GRADUATE |
|-----------|----------|
| a | b |

ON-SITE AMBULATORY FACILITIES

⑬ EXAMINING AND TREATMENT ROOMS USED BY RESPONDENT

| NUMBER OF ROOMS | TOTAL PATIENT STATIONS |
|-----------------|------------------------|
| a | b |

14. NUMBER OF OUTPATIENT VISITS PER YEAR APPLIED TO RESPONDENT'S STUDENT INSTRUCTION.....

15. AVERAGE NUMBER OF RESPONDENT'S STUDENTS USING THESE FACILITIES AT ANY ONE TIME

| UNDERGRAD | GRADUATE |
|-----------|----------|
| a | b |

A. CURRENT USAGE

REPORT JOINT-USE SPACE
CURRENTLY USED, OR PROVIDED
TO OTHERS, BY RESPONDENT

| | | SPACE NOT ALLOCATED TO RESPONDENT BUT USED BY RESPONDENT'S STUDENTS | | SPACE ALLOCATED TO RESPONDENT, BUT SHARED WITH, OR USED BY STUDENTS OF ANOTHER DISCIPLINE | |
|----|---|--|-----------------------|---|-----------------------|
| | | CLASSROOM-TYPE INSTRUCTIONAL SPACE | CLASS LABORATORIES | CLASSROOM-TYPE INSTRUCTIONAL SPACE | CLASS LABORATORIES |
| | | A | B | C | D |
| ① | NUMBER OF ROOMS | | | | |
| 2. | TOTAL NUMBER OF STUDENT STATIONS ON LINE A. 1 | | | | |
| ③ | NUMBER OF ROOM-HOURS USED DURING THE ACADEMIC YEAR | | | | |

B. USAGE UPON COMPLETION OF ONGOING CONSTRUCTION AND REMODELING

ANSWER ITEMS B1-B3 ONLY IF JOINT-USE SPACE OR ITS
USAGE WILL CHANGE SIGNIFICANTLY
FOLLOWING THE COMPLETION OF ONGOING AND
FULLY AUTHORIZED CONSTRUCTION AND REMODELING.

| | | A | B |
|---|---|---|---|
| 1 | NUMBER OF ROOMS TO BE USED DURING THE ACADEMIC YEAR | | |
| 2 | TOTAL NUMBER OF STUDENT STATIONS ON LINE B1 | | |
| 3 | ESTIMATED NUMBER OF ROOM-HOURS TO BE USED DURING THE ACADEMIC YEAR | | |

| C | D |
|---|---|
| | |
| | |
| | |

IMPAC CODE _____

**ONGOING AND FULLY AUTHORIZED CONSTRUCTION AND REMODELING
TO BE ALLOCATED TO RESPONDENT**
(EXCLUDE SPACE IN FREESTANDING HOSPITALS AND CLINICS)

☐ IF RESPONDENT HAS NO CONSTRUCTION OR REMODELING TO REPORT, CHECK (✓) THE BOX TO THE LEFT AND PROCEED TO THE NEXT PAGE

(A) OVERVIEW

1. ALL SPACE BEING (OR TO BE) REMODELED
2. OWNED NEW CONSTRUCTION

| a. | b. | c. | d. |
|---------------------|-----|-----|---------------------------|
| COST (Thousands) | GSF | NSF | NSF OF HPEA ASSIST. |
| \$ | | | |
| \$ | | | |

(B) IF CONSTRUCTION AND REMODELING WILL ADD ON-SITE PATIENT CARE FACILITIES, INDICATE:

1. NUMBER OF ADDITIONAL BEDS TO BECOME AVAILABLE FOR RESPONDENT'S STUDENT USE
2. NUMBER OF PATIENT STATIONS IN ADDITIONAL EXAMINING AND TREATMENT ROOMS TO BE USED BY RESPONDENT

| |
|--|
| |
| |

(C) APPORTION GSF OF OWNED NEW CONSTRUCTION (ITEM A2, Column b) AS TO PURPOSE:

1. EXPANDING ENROLLMENT
2. RELIEF OF OVERCROWDING
3. REPLACING OBSOLETE SPACE
4. OTHER PURPOSES

D. CONSTRUCTION AND REMODELING COSTS AND SOURCES OF FUNDS

1. SUM OF COSTS REPORTED IN ITEMS A1 AND A2

| |
|----|
| \$ |
|----|

(2) HOW MUCH OF THE TOTAL REPORTED IN ITEM D1 IS FROM:

| | |
|--------------------------------|----|
| a. INSTITUTION'S PRIVATE FUNDS | \$ |
| b. INSTITUTION'S BORROWING | \$ |
| c. STATE OR LOCAL FUNDS | \$ |

| | |
|-----------------------------------|----|
| d. FOUNDATIONS AND PHILANTHROPIES | \$ |
| e. HPEA CONSTRUCTION GRANTS | \$ |
| f. CHMTA LOAN GUARANTEES | \$ |

| | |
|-----------------------------|----|
| g. CHMTA INTEREST SUBSIDIES | \$ |
| h. OTHER FEDERAL SOURCES | \$ |
| i. OTHER | \$ |

E. ONGOING AND FULLY AUTHORIZED CONSTRUCTION AND REMODELING:

| | A | B | C | D | E | F | G | H | I | J | K |
|---|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1. NASF OF OWNED SPACE BEING (OR TO BE) REMODELED | | | | | | | | | | | |
| 2. NASF OF OWNED NEW CONSTRUCTION | | | | | | | | | | | |
| 3. CHECK (✓) EACH TYPE OF SPACE CONSTRUCTED OR REMODELED WITH HPEA ASSISTANCE | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

TOTAL OF COLUMNS B-K
CLASSROOM TYPE IN-STRUCTURAL SPACE
CLASS LABORATORIES
RESEARCH & RESEARCH
TRAINING SPACE
LIBRARY SPACE
AUDITORIUMS
FACULTY OFFICES
ADMINISTRATIVE OFFICES AND AREAS
ANIMAL FACILITIES
ON-SITE PATIENT CARE FACILITIES
OTHER SPACE

(F) REVISED INVENTORY AFTER ONGOING (OR FULLY AUTHORIZED) CONSTRUCTION AND REMODELING ARE COMPLETED:

| | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|
| 1. NASF OF OWNED SPACE | | | | | | | | | | | |
| 2. NASF OF RENTED, LEASED OR OTHER SPACE | | | | | | | | | | | |
| 3. NUMBER OF STUDENT STATIONS REPRESENTED ON LINES F1 and F2 | | | | | | | | | | | |
| 4. NUMBER OF ROOMS REPRESENTED ON LINES F1 and F2 | | | | | | | | | | | |

(G) REMAINING NEEDS AFTER CONSTRUCTION AND REMODELING HAVE BEEN COMPLETED:

| | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|
| 1. NASF STILL REQUIRED | | | | | | | | | | | |
| 2. FOR EACH TYPE OF SPACE NEEDED, ENTER THE APPROPRIATE LETTER (SEE INSTRU.) | | | | | | | | | | | |

14. INDICATE THE CALENDAR YEAR ALL ONGOING AND FULLY AUTHORIZED CONSTRUCTION AND REMODELING ARE EXPECTED TO BE COMPLETED: _____

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MAJOR HOSPITALS AND CLINICS USED BY RESPONDENT

IMPAC CODE _____

SECTION A

| | | | |
|----|--|---|--|
| 1. | NAME OF HOSPITAL OR CLINIC | ADDRESS | CONTROL (CHECK (✓) ONE) |
| | | | <input type="checkbox"/> OWNED <input type="checkbox"/> MAJOR AFFILIATE |
| 2. | TYPE OF HOSPITAL (Check (✓) All Applicable Boxes) | <input type="checkbox"/> GENERAL <input type="checkbox"/> SPECIAL (Specify) _____ <input type="checkbox"/> VA or PHS _____ | <input type="checkbox"/> OTHER (Specify) _____ |
| 3. | LOCALE (Check (✓) One) | <input type="checkbox"/> INNER CITY <input type="checkbox"/> OUTER CITY <input type="checkbox"/> SUBURBAN <input type="checkbox"/> RURAL | |

4. TOTAL GSF
(Gross Square Feet)

5. GSF CONSTRUCTED
WITH HPEA ASSISTANCE

6. NSF (Net Square Feet) REMODELED
WITH HPEA ASSISTANCE

INPATIENT FACILITIES:

7. BEDS USED FOR RESPONDENT'S STUDENT INSTRUCTION.....

| NUMBER | AVERAGE DAILY PATIENT LOAD (ADPL) |
|-----------|--------------------------------------|
| a. _____ | b. _____ |
| UNDERGRAD | GRADUATE |
| a. _____ | b. _____ |

8. AVERAGE NUMBER OF RESPONDENT'S STUDENTS USING THESE FACILITIES AT ANY ONE TIME

AMBULATORY FACILITIES:

9. EXAMINING AND TREATMENT ROOMS USED BY RESPONDENT.....

| NUMBER OF ROOMS | TOTAL PATIENT STATIONS |
|--------------------|---------------------------|
| a. _____ | b. _____ |

10. NUMBER OF OUTPATIENT VISITS PER YEAR APPLIED TO RESPONDENT'S STUDENT INSTRUCTION.....

| UNDERGRAD | GRADUATE |
|-----------|----------|
| a. _____ | b. _____ |

11. AVERAGE NUMBER OF RESPONDENT'S STUDENTS USING THESE FACILITIES AT ANY ONE TIME

NON PATIENT-CARE INSTRUCTIONAL FACILITIES AVAILABLE FOR RESPONDENT'S STUDENTS.

| | A | B | C | D | E | F | G | H | I | J |
|--|---|---|---|---|---|---|---|---|---|---|
| 12. NSF AVAILABLE FOR USE BY RESPONDENT | | | | | | | | | | |
| 13. CHECK (✓) EACH TYPE OF SPACE AT LEAST PARTIALLY CONSTRUCTED OR OR REMODELED WITH HPEA ASSISTANCE | | | | | | | | | | |
| 14. NUMBER OF ROOMS ON LINE 12 | | | | | | | | | | |

FACILITIES CURRENTLY NEEDED

| | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|
| 15. ADDITIONAL NSF CURRENTLY NEEDED TO ACCOMMODATE RESPONDENT'S STUDENTS | | | | | | | | | | |
| 16. FOR EACH TYPE OF SPACE NEEDED, USE LETTER CODE TO INDICATE THE REASON | | | | | | | | | | |
| 17. WHAT PORTION (in NSF) of each entry in ITEM 15 IS ATTRIBUTABLE TO OVERCROWDING? | | | | | | | | | | |

18. AVERAGE NUMBER OF HOURS PER (ACADEMIC) YEAR THAT A TYPICAL ROOM IS USED FOR ACADEMIC PURPOSES.....

| CLASSROOM-TYPE INSTRUCT. SPACE | CLASS LABORATORIES |
|-----------------------------------|-----------------------|
| | |

19. APPORTION NSF OF LINE 12, COLUMN A BY CONDITION:.....

| SATISFACTORY FOR PROGRAM PURPOSE | IN NEED OF REMODELING | IN NEED OF REPLACEMENT |
|-------------------------------------|--------------------------|---------------------------|
| a. _____ | b. _____ | c. _____ |

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SECTION B

ONGOING AND FULLY AUTHORIZED CONSTRUCTION AND REMODELING

IF RESPONDENT HAS NO CONSTRUCTION OR REMODELING TO REPORT, CHECK (/) THE BOX TO THE LEFT AND PROCEED TO SEC. C.

① OVERVIEW

a. OWNED SPACE BEING (OR TO BE) REMODELED.....

b. OWNED NEW CONSTRUCTION.....

| 1 | 2 | 3 | 4 |
|---------------------|-----|-----|------------------------|
| COST (Thousands) | GSF | NSF | NSF of HPEA ASSIST. |
| \$ | | | |
| \$ | | | |

② PATIENT CARE FACILITIES BEING ADDED

a. NUMBER OF ADDITIONAL BEDS TO BECOME AVAILABLE FOR RESPONDENT'S STUDENT USE.....

b. NUMBER OF PATIENT STATIONS
IN ADDITIONAL EXAMINING AND TREATMENT ROOMS TO BE USED BY RESPONDENT.....

③ APPORTION GSF OF OWNED NEW CONSTRUCTION (ITEM 1b, Column 2) AS TO PURPOSE

a. EXPANDING ENROLLMENT b. RELIEF OF OVERCROWDING c. REPLACING OBSOLETE SPACE d. OTHER PURPOSES

4. CONSTRUCTION AND REMODELING COSTS AND SOURCES OF FUNDS

a. SUM OF COSTS REPORTED IN ITEMS 1a and 1b ABOVE.....

(b) HOW MUCH OF THE TOTAL REPORTED IN ITEM 4a. IS FROM:

| | | | | | |
|---------------------------------|----|------------------------------------|----|------------------------------|----|
| (1) INSTITUTION'S PRIVATE FUNDS | \$ | (4) FOUNDATIONS AND PHILANTHROPIES | \$ | (7) CHMTA INTEREST SUBSIDIES | \$ |
| (2) INSTITUTION'S BORROWING | \$ | (5) HPEA CONSTRUCTION GRANTS | \$ | (8) OTHER FEDERAL SOURCES | \$ |
| (3) STATE OR LOCAL FUNDS | \$ | (6) CHMTA LOAN GUARANTEES | \$ | (9) OTHER | \$ |

HPEA AID; REVISED INVENTORY; AND POST-CONSTRUCTION NEEDS:

| | A | B | C | D | E | F | G | H | I | J |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 CHECK (/) EACH TYPE OF SPACE CONSTRUCTED OR REMODELED WITH HPEA ASSISTANCE | | | | | | | | | | |
| 6 REVISED INVENTORY OF NASF AVAILABLE FOR RESPONDENT'S USE AFTER CONSTRUCTION AND REMODELING ARE COMPLETE | | | | | | | | | | |
| 7 NASF STILL NEEDED AFTER COMPLETION OF REPORTED CONSTRUCTION AND REMODELING | | | | | | | | | | |
| 8 FOR EACH TYPE OF SPACE NEEDED, USE LETTER CODE TO INDICATE THE REASON | | | | | | | | | | |

9. INDICATE THE CALENDAR YEAR ALL ONGOING AND FULLY AUTHORIZED CONSTRUCTION AND REMODELING ARE EXPECTED TO BE COMPLETED.....

SECTION C

FUTURE CONSTRUCTION AND MAJOR REMODELING PLANNED FOR COMPLETION BY 1983
(OVER AND ABOVE ONGOING CONSTRUCTION AND REMODELING REPORTED IN SECTION B)

① OVERVIEW

a. NSF TO BE REMODELED
b. GSF OF NEW CONSTRUCTION
c. TOTAL NASF ANTICIPATED TO BE AVAILABLE FOR RESPONDENT'S USE BY 1983

② APPORTION "GSF OF NEW CONSTRUCTION" (ITEM C.1.b.) AS TO ITS PURPOSE:

a. GSF FOR EXPANDING ENROLLMENT
b. GSF FOR RELIEF OF OVERCROWDING
c. GSF TO REPLACE OBSOLETE FACILITIES
d. GSF FOR OTHER PURPOSES

OTHER HOSPITALS AND CLINICS USED BY RESPONDENT

☐ CHECK (✓) THE BOX TO THE LEFT AND PROCEED TO THE NEXT PAGE IF THERE ARE NO OTHER HOSPITALS AND CLINICS USED BY RESPONDENT.

COMPLETE ONE ROW OF DATA IN THE TABLE BELOW FOR EACH HOSPITAL OR CLINIC USED BY THE RESPONDENT, BUT NOT REPORTED ON PAGE(S) 5A/5B

| | | CHECK (✓) EACH TYPE OF SPACE THAT IS AVAILABLE FOR USE BY RESPONDENT | | | | | | | | | INPATIENT FACILITIES | | | | AMBULATORY FACILITIES | | | | |
|----|-------|--|--------------------------|--------------------------|--------------------------------------|--------------------------|--------------------------|--------------------------|---|-------------------|---|---|--|---------------|--------------------------|--|---|--|---|
| | | CLASSROOM-TYPE SPACE | INSTRUCTIONAL SPACE | CLASS LABORATORIES | RESEARCH AND RESEARCH TRAINING SPACE | LIBRARY SPACE | AUDITORIUMS | FACULTY OFFICES | ADMIN. OFFICES AND AREAS ASSIGNED TO RESPONDENT | ANIMAL FACILITIES | TOTAL NUMBER OF BEDS USED BY RESPONDENT FOR STUDENT INSTRUCTION | YEARLY NUMBER OF RESPONDENT'S STUDENTS USING BEDS IN COLUMN I | AVERAGE DAILY PATIENT LOAD (APPLY IN BEDS IN COLUMN J) | NUM. OF ROOMS | NUM. OF PATIENT STATIONS | TOTAL NUMBER OF EXAMINING AND TREATMENT ROOMS USED BY RESPONDENT FOR STUDENT INSTRUCTION THROUGHOUT THE YEAR | TOTAL NUMBER OF RESPONDENT'S STUDENTS USING EXAMINING AND TREATMENT ROOMS THROUGHOUT THE YEAR | NUMBER OF OUTPATIENT VISITS PER YEAR APPLIED TO RESPONDENT'S STUDENT INSTRUCTION (ENTER LETTER CODE AS PER INSTRUCTIONS) | |
| | | A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R |
| 1. | NAME: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | |
| 2. | NAME: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | |
| 3. | NAME: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | |
| 4. | NAME: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | |
| 5. | NAME: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | |
| 6. | NAME: | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | | | | | | | | | | |

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IMPAC CODE _____

OTHER FACILITIES AVAILABLE FOR STUDENTS' PRACTICAL EXPERIENCE
(SEE INSTRUCTIONS)

| | FACILITY TYPE | NUMBER OF SUCH FACILITIES | NUMBER OF RESPONDENT'S STUDENTS USING THESE FACILITIES PER YEAR | TYPE OF ACTIVITY | NUMBER OF ACTIVITY UNITS PER YR. |
|-----|---------------|---------------------------|---|------------------|----------------------------------|
| 1. | | | | | |
| 2. | | | | | |
| 3. | | | | | |
| 4. | | | | | |
| 5. | | | | | |
| 6. | | | | | |
| 7. | | | | | |
| 8. | | | | | |
| 9. | | | | | |
| 10. | | | | | |

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IMPAC CODE _____

2) AUDIOVISUAL (A/V) TEACHING SUPPORT FACILITIES AVAILABLE TO RESPONDENT:

| | | | | |
|----|--|--|--------------------|-------------|
| 1. | NASF OF AUDIOVISUAL AND TV PRODUCTION FACILITIES | | | |
| 2. | NUMBER OF ROOMS WITH BUILT-IN TV CAPABILITIES | CLASS ROOMS | CLASS LABORATORIES | AUDITORIUMS |
| 3. | NUMBER OF COMPUTER TERMINALS FOR RESPONDENT'S COMPUTER - AIDED INSTRUCTION | | | |
| 4. | TOTAL NUMBER OF STUDY CARRELS AVAILABLE FOR A/V USE | LIBRARY | CLASS LABORATORIES | OTHER |
| 5. | NASF IN ALL SELF-INSTRUCTIONAL LABORATORIES OR INDIVIDUAL STUDY AREAS EQUIPPED FOR AUDIOVISUAL USE | | | |
| 6. | DOES RESPONDENT HAVE AN "OFFICE OF AUDIOVISUAL SERVICES" (OR EQUIVALENT)? | <input type="checkbox"/> YES <input type="checkbox"/> NO | | |

3) DISTRIBUTE CLASSROOM-TYPE SPACE AND CLASS LABORATORY SPACE BETWEEN BASIC BIOLOGICAL SCIENCES INSTRUCTION AND CLINICAL SCIENCES INSTRUCTION:

| | CLASSROOM-TYPE INSTRUCTIONAL SPACE | CLASS LABORATORY SPACE |
|----|---|------------------------|
| 1. | PRIMARYLY BASIC BIOLOGICAL SCIENCES INST. | % |
| 2. | PRIMARYLY CLINICAL SCIENCES INSTRUCTION | % |
| 3. | OTHER | % |
| 4. | TOTAL | 100 % |

| % FOR INSTR. | % FOR RESEARCH | OTHER % | TOTAL |
|--------------|----------------|---------|-------|
| % | % | % | 100 % |

4) APPORTION ALL ANIMAL FACILITIES USED BY RESPONDENT AS SUPPORT FOR INSTRUCTION AND RESEARCH.....**5) SELECTED ROOM-USE DATA**

(FOR THE ROOM TYPES REQUESTED, REPORT RESPONDENT'S USAGE OF ALL ROOMS REPORTED ON PAGES 2A and 2B)

| | | CLASSROOM TYPE INSTRUCTIONAL SPACE AND AUDITORIUMS | | | CLASS LABORATORIES (EXCLUDE SPECIAL PURPOSE CLASS LABS) | | | SPECIAL PURPOSE CLASS LABORATORIES | | |
|----|------------------------|--|------------|----------------------|---|------------|----------------------|------------------------------------|------------|----------------------|
| | | NUMBER OF ROOMS | ROOM USAGE | MAJOR USAGE PROBLEMS | NUMBER OF ROOMS | ROOM USAGE | MAJOR USAGE PROBLEMS | NUMBER OF ROOMS | ROOM USAGE | MAJOR USAGE PROBLEMS |
| | | A | B | C | D | E | F | G | H | I |
| 1. | 1 16 STATIONS | | | | | | | | | |
| 2. | 17 32 STATIONS | | | | | | | | | |
| 3. | 33 64 STATIONS | | | | | | | | | |
| 4. | 65 128 STATIONS | | | | | | | | | |
| 5. | MORE THAN 128 STATIONS | | | | | | | | | |
| 6. | TOTAL OF LINES 1-5 | | | | | | | | | |

6) CURRENT ENROLLMENT VERSUS CURRENT LIBRARY CAPACITY (SEE INSTRUCTIONS).....

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CURRENT INSTRUCTION OF RESPONDENT'S STUDENTS

(A) ESTIMATE THE AVERAGE HOURS PER YEAR CURRENTLY SPENT IN EACH TYPE OF SPACE, BY A TYPICAL FULL-TIME STUDENT OF EACH OF THE FOLLOWING TYPES:

| | | HOURS SPENT IN ALLOCATED AND JOINT USE FACILITIES (EXCLUDING FREESTANDING HOSPITALS AND CLINICS) | | | | HOURS SPENT IN OWNED AND MAJOR AFFILIATED HOSPITALS AND CLINICS (ONLY) | | | |
|----|--------------------------------------|---|--------------------|---|-----------------|--|--------------------|---|-----------------|
| | | CLASSROOM TYPE INSTRUCTIONAL SPACE | CLASS LABORATORIES | EXAMINING AND TREATMENT ROOMS (AMBULATORY CARE) | INPATIENT AREAS | CLASSROOM TYPE INSTRUCTIONAL SPACE | CLASS LABORATORIES | EXAMINING AND TREATMENT ROOMS (AMBULATORY CARE) | INPATIENT AREAS |
| | | A | B | C | D | E | F | G | H |
| 1. | FIRST YEAR UNDERGRADUATE | | | | | | | | |
| 2. | SECOND YEAR UNDERGRADUATE | | | | | | | | |
| 3. | THIRD YEAR UNDERGRADUATE | | | | | | | | |
| 4. | FOURTH YEAR UNDERGRADUATE | | | | | | | | |
| 5. | FIFTH YEAR UNDERGRADUATE | | | | | | | | |
| 6. | SIXTH YEAR UNDERGRADUATE | | | | | | | | |
| 7. | GRADUATE STUDENT ENROLLED FOR DEGREE | | | | | | | | |

B.

| | | |
|----|--|---------|
| ① | NUMBER OF WEEKS IN THE ACADEMIC YEAR _____ | WEEKS |
| ② | NUMBER OF HOURS IN THE ACADEMIC WEEK _____ | HOURS |
| 3. | NUMBER OF DAYS IN THE ACADEMIC WEEK _____ | DAYS |
| 4. | NUMBER OF ADMISSION PERIODS PER CALENDAR YEAR _____ | PERIODS |

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IMPAC CODE _____

**INSTRUCTION OF RESPONDENT'S STUDENTS:
FOLLOWING MAJOR CURRICULUM CHANGES OR INNOVATIONS**

☐ IF NO MAJOR CURRICULUM CHANGES OR INNOVATIONS ARE ANTICIPATED OR UNDERWAY, CHECK (✓) BOX TO THE LEFT AND CONTINUE TO THE NEXT PAGE.

(A) ESTIMATE THE AVERAGE HOURS PER YEAR THAT WILL BE SPENT IN EACH TYPE OF SPACE, BY A TYPICAL FULL-TIME STUDENT OF EACH OF THE FOLLOWING TYPES:

| | HOURS SPENT IN ALLOCATED AND JOINT USE FACILITIES (EXCLUDING FREESTANDING HOSPITALS AND CLINICS) | | | | HOURS SPENT IN OWNED AND MAJOR AFFILIATED HOSPITALS AND CLINICS (ONLY) | | | |
|---|---|--------------------|---|-----------------|--|--------------------|---|-----------------|
| | CLASSROOM-TYPE INSTRUCTIONAL SPACE | CLASS LABORATORIES | EXAMINING AND TREATMENT ROOMS (AMBULATORY CARE) | INPATIENT AREAS | CLASSROOM-TYPE INSTRUCTIONAL SPACE | CLASS LABORATORIES | EXAMINING AND TREATMENT ROOMS (AMBULATORY CARE) | INPATIENT AREAS |
| | A | B | C | D | E | F | G | H |
| 1. FIRST YEAR UNDERGRADUATE | | | | | | | | |
| 2. SECOND YEAR UNDERGRADUATE | | | | | | | | |
| 3. THIRD YEAR UNDERGRADUATE | | | | | | | | |
| 4. FOURTH YEAR UNDERGRADUATE | | | | | | | | |
| 5. FIFTH YEAR UNDERGRADUATE | | | | | | | | |
| 6. SIXTH YEAR UNDERGRADUATE | | | | | | | | |
| 7. GRADUATE STUDENT ENROLLED FOR DEGREE | | | | | | | | |

B.

- | | | | |
|----|---|-------|---------|
| ① | NUMBER OF WEEKS IN THE ACADEMIC YEAR | _____ | WEEKS |
| ② | NUMBER OF HOURS IN THE ACADEMIC WEEK | _____ | HOURS |
| 3. | NUMBER OF DAYS IN THE ACADEMIC WEEK | _____ | DAYS |
| 4. | NUMBER OF ADMISSION PERIODS PER CALENDAR YEAR | _____ | PERIODS |

C. PLEASE DESCRIBE THE NATURE AND TARGET DATES OF THE CURRICULUM CHANGES OR INNOVATIONS AND THEIR ANTICIPATED EFFECTS ON ENROLLMENT, LENGTH OF THE EDUCATIONAL PROGRAM, FACULTY, FACILITY REQUIREMENTS, ETC.

IMPAC CODE _____

A. WHAT UNDERGRADUATE ENROLLMENT INCREASES WOULD BE POSSIBLE UNDER THE CAPITATION, CONSTRUCTION AND SPECIAL PROJECTS PROVISIONS OF THE COMPREHENSIVE HEALTH MANPOWER TRAINING ACT OF 1971 (P.L. 92-157) ASSUMING:

1. FEDERAL SUPPORT AT THE FULL AUTHORIZATION LEVEL:

_____ STUDENTS

2. FEDERAL SUPPORT AT THE CURRENT (FISCAL YEAR 1973) FUNDING LEVEL:

_____ STUDENTS

3. NO FEDERAL SUPPORT UNDER THE ACT:

_____ STUDENTS

B. FUTURE CONSTRUCTION AND MAJOR REMODELING PLANNED FOR COMPLETION BY 1983

(OVER AND ABOVE ONGOING CONSTRUCTION AND REMODELING REPORTED ON PAGE 4)

(EXCLUDE FREESTANDING HOSPITALS AND CLINICS)

CHECK (✓) BOX a. or b., AND ENTER THE YEAR:

1. ☐ THE ESTIMATES ON THIS PAGE ARE BASED ON A DEVELOPMENT OR MASTER PLAN EXTENDING THROUGH CALENDAR YEAR _____

2. ☐ THE ESTIMATES ON THIS PAGE ARE BASED ON A DEVELOPMENT OR MASTER PLAN WHICH IS IN PROCESS OF BEING FORMULATED EXTENDING THROUGH CALENDAR YEAR _____

1. NASF OF OWNED NEW CONSTRUCTION TO BE ALLOCATED TO RESPONDENT

2. NASF OF MAJOR REMODELING IN SPACE ALLOCATED TO RESPONDENT

③ APPORTION "NEW CONSTRUCTION" (ITEM 1) AS TO ITS PURPOSE:

a. NASF FOR EXPANDING ENROLLMENT

b. NASF FOR RELIEF OF OVERCROWDING

c. NASF TO REPLACE OBSOLETE FACILITIES

d. NASF FOR OTHER PURPOSES

4. ESTIMATED TOTAL SPACE TO BE ALLOCATED TO RESPONDENT IN 1983

5. ANTICIPATED LOCATION OF RESPONDENT IN 1983 (CHECK (✓) ONE):

a. ☐ REMAIN AT CURRENT LOCATION.

b. ☐ RELOCATE TO INNER CITY. YEAR OF MOVE _____

c. ☐ RELOCATE TO OUTER CITY. YEAR OF MOVE _____

d. ☐ RELOCATE TO SUBURB. YEAR OF MOVE _____

e. ☐ RELOCATE TO RURAL AREA. YEAR OF MOVE _____

f. ☐ OTHER (SPECIFY) _____

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IMPAC CODE _____

**STUDENTS, FACULTY AND SUPPORT STAFF USING RESPONDENT'S FACILITIES:
CURRENT TOTALS AND FUTURE PROJECTIONS**

| | | <div> <div>CURRENT HEADCOUNT</div> <div>FULL-TIME EQUIVALENT OF COLUMN A</div> <div>TOTAL NUMBER TO BE ACCOMMODATED AFTER COMPLETION OF ONGOING AND FULLY AUTHORIZED CONSTRUCTION AND REMODELING</div> <div>FULL-TIME EQUIVALENT OF COLUMN C</div> <div>PROJECTED HEADCOUNT FOR FALL, 1983</div> </div> | | | | |
|-----------------------|-------------------------|---|---|---|---|---|
| RESPONDENT'S STUDENTS | | A | B | C | D | E |
| ① | (TOTAL) UNDERGRADUATE | | | | | |
| 2 | FIRST YEAR STUDENTS | | | | | |
| 3 | SECOND YEAR STUDENTS | | | | | |
| 4 | THIRD YEAR STUDENTS | | | | | |
| 5 | FOURTH YEAR STUDENTS | | | | | |
| 6 | FIFTH YEAR STUDENTS | | | | | |
| 7 | SIXTH YEAR STUDENTS | | | | | |
| 8 | TOTAL GRADUATE STUDENTS | | | | | |
| 9 | ENROLLED FOR DEGREE | | | | | |
| 10 | NOT ENROLLED FOR DEGREE | | | | | |

OTHER THAN "RESPONDENT'S STUDENTS"

| | | | | | | |
|----|-------------------------------|--|--|--|--|--|
| ⑪ | (TOTAL) UNDERGRADUATE | | | | | |
| 12 | FIRST YEAR STUDENTS | | | | | |
| 13 | POST DOCTORAL | | | | | |
| 14 | CONTINUING EDUCATION STUDENTS | | | | | |
| 15 | INTERNS AND RESIDENTS | | | | | |
| ⑫ | TOTAL OTHER STUDENTS | | | | | |
| ⑬ | PHYSICIAN ASSISTANTS | | | | | |
| ⑭ | HEALTH TECHNOLOGISTS | | | | | |
| ⑮ | NURSES (RN ONLY) | | | | | |
| ⑯ | OTHER | | | | | |

RESPONDENT'S FACULTY/STAFF

| | | | | | | |
|----|---|--|--|--|--|--|
| 21 | FULL-TIME FACULTY (INCLUDES GEOGRAPHIC FULL-TIME) | | | | | |
| 22 | PART-TIME FACULTY | | | | | |
| ⑰ | SUPPORT STAFF | | | | | |

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IMPAC CODE _____

[illegible]

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d. (POSTCARD TO ACKNOWLEDGE RECEIPT OF PACKAGE) (used for both instruments)

Date: _____

We have received the Health Education Facilities Survey package. The name and telephone number of the individual completing the survey questionnaire and the complete address of our school is as follows: (Please Type or Print)

Name of Individual: _____

Individual's Title: _____

Telephone: _____
(area code)

Name of University: _____

Name of School: _____

Street: _____

City, State and Zip: _____

John Hansen Parcel
USPS 60

HEALTH PROFESSIONS FACILITIES SURVEY
REC INTERNATIONAL, INC.
1125 PEOPLES AVENUE
TROY, NEW YORK 12181

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e. APPENDIX I

DEFINITIONS OF TERMS USED IN
SURVEY OF HEALTH PROFESSIONS EDUCATION FACILITIES

Academic Week - The number of hours, during one week, available for classroom and class laboratory instruction of full-time health professions students; e.g., a 40 hour week.

Academic Year - The length of time, during one 12-month period, that a health professions school conducts regular undergraduate or graduate education on a full-time basis. Where this period varies by academic level, the academic year shall be defined as that period which serves the majority of the students.

Allocated Facilities - Those facilities whose use is controlled by a health professions school. Any facility used by more than one health professions school should be considered as allocated to that school which exercises authority over its day-to-day use.

Audiovisual Teaching Support Facilities - Those physical areas set aside for the planning, production and use of graphics, photography, films, video tapes, filmstrips, exhibits and other media used predominantly for instructional purposes (including space for the storage and maintenance of these materials and associated equipment needed to use the media).

Average Daily Patient Load - The total number of inpatient days of care (exclusive of newborn) rendered throughout a period of time in a hospital, divided by the total number of days in that period.

Basic Biological Science Instruction Facilities - Those physical areas used solely or primarily for instruction in such subject areas as anatomy, biochemistry, microbiology, pathology, pharmacology and physiology.

Clinical Material - Human or animal patients available for a health professions school's teaching and research purposes.

Clinical Science Instruction Facilities - Those nonpatient-care facilities used solely or primarily for instruction in subject areas dealing with the health, observation, diagnosis and treatment of patients.

Condition of Space - Space is in satisfactory condition if it is physically sound and suitable to Respondent's program purposes, even though it might be overcrowded. Space should be remodeled if, in order to effectively accommodate the activity for which it is used, it needs alteration, modification, reconditioning, rehabilitation, renovation, major repair (excluding routine maintenance), or changes in fixed equipment, architectural features, heating, lighting, electrical power, safety features, air conditioning or ventilation. Space should be replaced if it is structurally unsound or if its nature is such that to make it satisfactory for the purpose used, it would be economically advisable to replace rather than remodel it.

Continuing Education Student - Usually, a practicing professional who receives specialized training at a health professions school as a supplement or refresher to his previous education.

Freestanding Hospital or Clinic - A freestanding hospital or clinic is one which is in a building (1) structurally separate from other buildings; or (2) not structurally separate but structurally distinguishable from the building to which it is attached (e.g., a hospital might be contained in a wing or wings of a building).

FTE - Full Time Equivalent of Part-Time Faculty - Total hours of scheduled time provided by a part-time faculty member over one year, divided by the average yearly hours of reimbursed time for a full-time faculty member. (Where this definition conflicts with the respondent's method of computing FTE's of part-time faculty, the respondent's method shall apply.)

FTE - Full-Time Equivalent Student - A student's total semester hours of study during an academic year, divided by the prescribed number of semester hours of study for a full-time student of the comparative level. (Where this definition conflicts with the respondent's method of computing FTE's of students, the respondent's method shall apply.)

Full-Time Faculty - Teaching and research staff employed by a health professions school on a full-time basis during the academic year. Faculty on a geographic full-time basis shall be counted as full-time.

Graduate Health Professions School - A school offering only advanced health professions training which does not lead to the first health professional degree.

Graduate Health Professions Student - A student obtaining health professions education either (1) above the baccalaureate level, but not leading to the first health professional degree in his field of endeavor; or (2) beyond the first health professional degree. The student may or may not be enrolled for a degree. Interns and residents, and postdoctoral or continuing education students should not be included as graduate students.

GSF - Gross Square Feet - Please refer to Floor Plan I, page 5.

Health Professions School - A school of dentistry, medicine, optometry, osteopathy, pharmacy, podiatry, public health or veterinary medicine.

Health Technologies - See "Other Students", category 2.

HPEA - Health Professions Educational Assistance Act of 1963, P.L. 88-129, as amended. Federal grant-in-aid program for construction and remodeling of health professions education facilities, and other purposes. As used in this survey, "HPEA" shall be defined as consisting of the following legislation:

- P.L. 88-129 Health Professions Educational Assistance Act of 1963
- P.L. 89-290 Health Professions Educational Assistance Amendments of 1965
- P.L. 90-490 Health Manpower Act of 1968
- P.L. 92-157 Comprehensive Health Manpower Training Act of 1971.

IMPAC Code - An internal computer code used by NIH.

Joint-Use Facilities - Facilities used by two or more separately administered schools, one (or more) of which is a health professions school. These facilities may be: (1) provided to a health professions school by the parent university, or by a non-health professions school or department under its control (e.g., a College of Biological Sciences); (2) provided by the health science center of the university; or (3) allocated to one health professions school but shared with, or used by, another school of the university.

Locale (of Health Professions School, Hospital or Clinic) -

- Inner City - The low-income area(s) of a city (if any exist).
- Outer City - Outside of the inner city area(s) but within the city limits.
- Suburban - Outside of the city limits but within the metropolitan area.
- Rural - Beyond the metropolitan area of a city.

Major Affiliated Hospital or Clinic - For purposes of this survey, a major affiliated hospital or clinic is one that is considered to be indispensable to the educational program of Respondent's institution because it is: used as a major teaching unit; or offers necessary programs not available at other hospitals and clinics.

NASF - Net Assignable Square Feet - Please refer to Floor Plan III, page 7.

NSF - Net Square Feet - Please refer to Floor Plan II, page 6.

New Construction - Construction of an entire building or addition to an existing building.

Ongoing or Fully Authorized Construction and Remodeling - (1) Construction or remodeling that is underway as of the survey date; (2) construction or remodeling activities which have not begun as of the survey date but which have been approved by all parties whose funding and other authorizations are required prior to their start; and (3) construction or remodeling which is complete, but not yet occupied as of the survey date.

Other Hospitals and Clinics - For purposes of this survey, "other hospitals and clinics" are those that are used by Respondent for teaching purposes, but not as major units in the school's teaching program.

Other Students - For purposes of this survey, students in educational programs leading to the following types of positions in the health field shall be considered "other students":

1. Physician assistants;
2. Health Technologists - Radiologic, medical, dental and inhalation technologists, physical and occupational therapists, medical technicians, hygienists, and other positions in the allied health specialties;
3. Nurses (baccalaureate, associate degree, diploma);
4. Other - Nursing assistants, practical nurses, and all other positions in the health area not covered by the first three categories.

Outpatient Visit - A visit by a patient to a hospital, clinic, or other health care facility for diagnosis or treatment on an ambulatory basis.

Overcrowding - For purposes of this survey, a room shall be considered overcrowded if it does not properly accommodate the number of students, faculty, staff or equipment necessary to effectively conduct the activities for which it is used. Where these conditions occur sporadically, and represent no more than an intermittent inconvenience, the room shall not be considered overcrowded. Where these conditions cause major interferences with the school's effective use of the space, the room shall be considered overcrowded.

Owned Space - Facilities owned by a health professions school or its parent institution.

Parent Institution - Central or coordinating organizational unit of an institution of higher education which offers two or more separately administered educational curricula, at least one of which is a health professions curriculum. Typically, the central administration of the university, or a health sciences center.

Part-Time Faculty - Teaching and research faculty employed on less than a full-time basis by the school, whether on a paid or voluntary basis.

Remodeling - Renovation, rehabilitation, alteration, major repair (excluding routine maintenance), reconditioning, modification, or changes in architectural features, fixed equipment, heating, lighting, electrical power, air conditioning or ventilation.

Rented, Leased or Other Space - Facilities available for use by a health professions school on a rental, lease, or other basis, but not owned by the school or its parent institution.

Respondent's Students - Unless specifically stated otherwise, "Respondent's students" should be construed to mean Respondent's students of Dentistry, Medicine, Pharmacy, Podiatry, Public Health, Optometry, Osteopathy, or Veterinary Medicine, whichever is applicable. Other students, (e.g., allied health) either taught by Respondent's faculty, using Respondent's facilities, or both, should not be included except as explicitly requested.

Room-Hour - A unit of measurement of room usage. It is defined as the use of one room, by one or more persons, for academic purposes, for one hour.

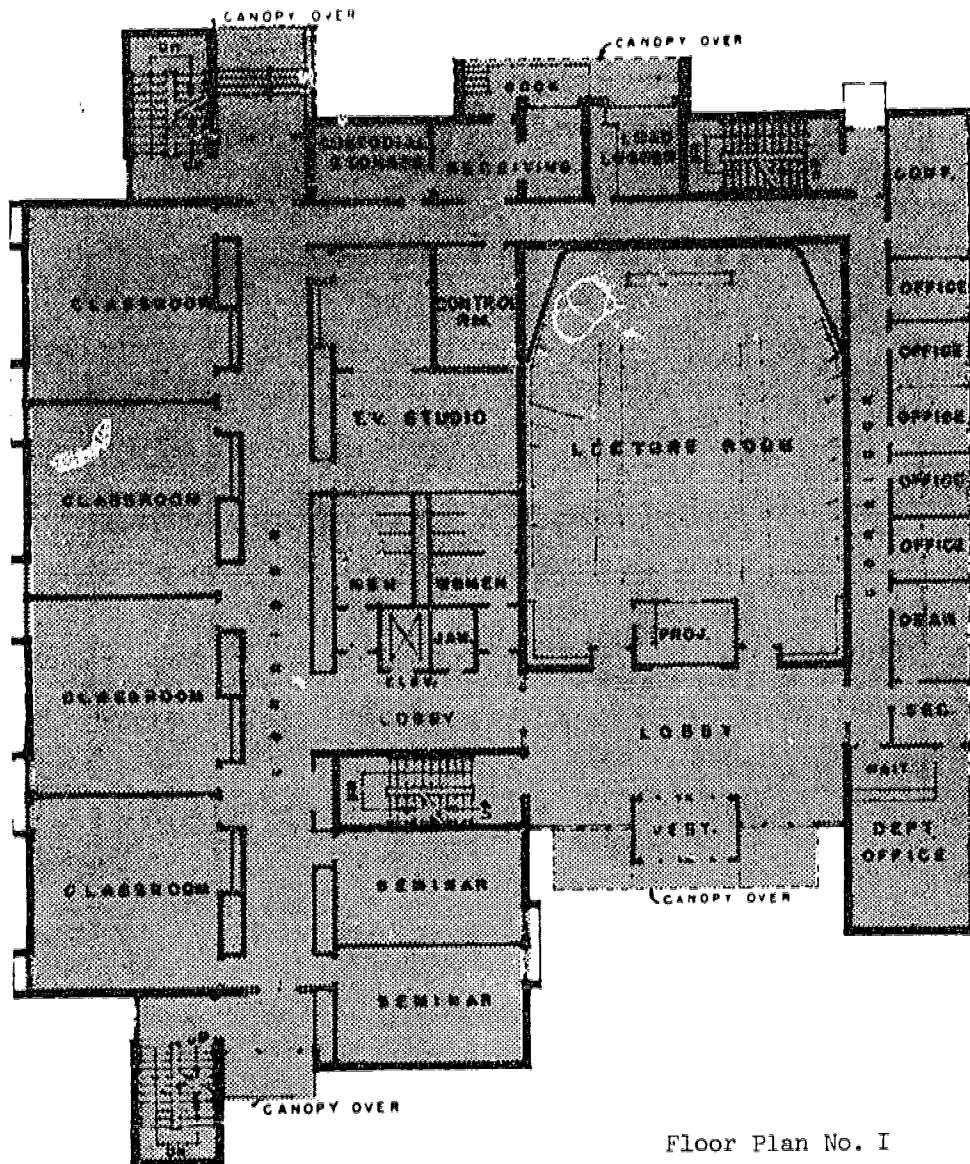
Student Stations - Seats, work stations, carrels, etc., available for use by students in classrooms, class laboratories, research areas, libraries, study halls, and assembly facilities.


Support Staff - All individuals on the school's payroll, regardless of rank (including student help), except full-time and part-time teaching and research faculty.

Type I, II, III Animal Facilities - See definition of "Animal Facilities" in Appendix II.

Undergraduate Health Professions Student - A student working toward the first health professional degree in one of the following eight health professions: dentistry, medicine, optometry, osteopathy, pharmacy, podiatry, public health, veterinary medicine.

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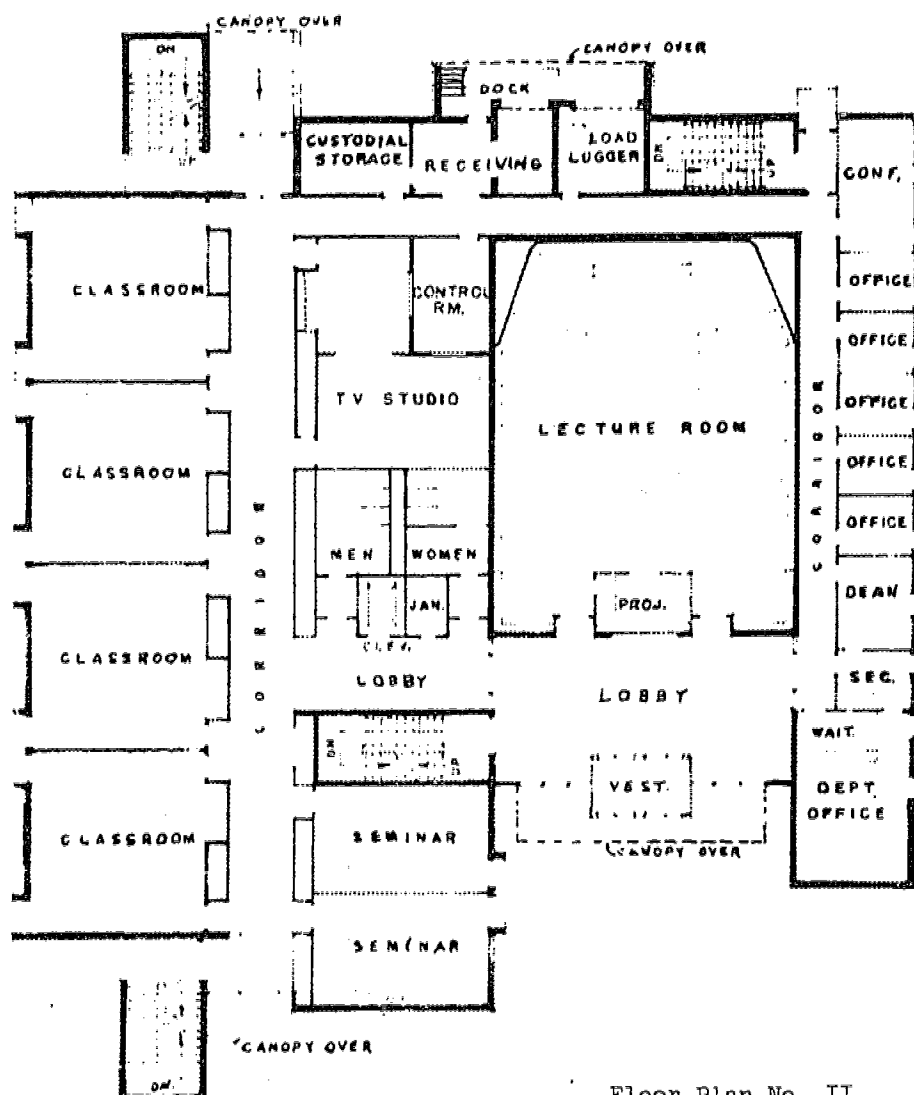
Key: GSF (Gross Square Footage) = 

The Gross Square Footage of a building should be construed to mean the sum of the floor areas included within the outside faces of exterior walls for all stories, or areas, which have floor surfaces.

Open courts and light wells, or portions of upper floors eliminated by rooms or lobbies which rise above single-floor ceiling height, should not be included in GSF.

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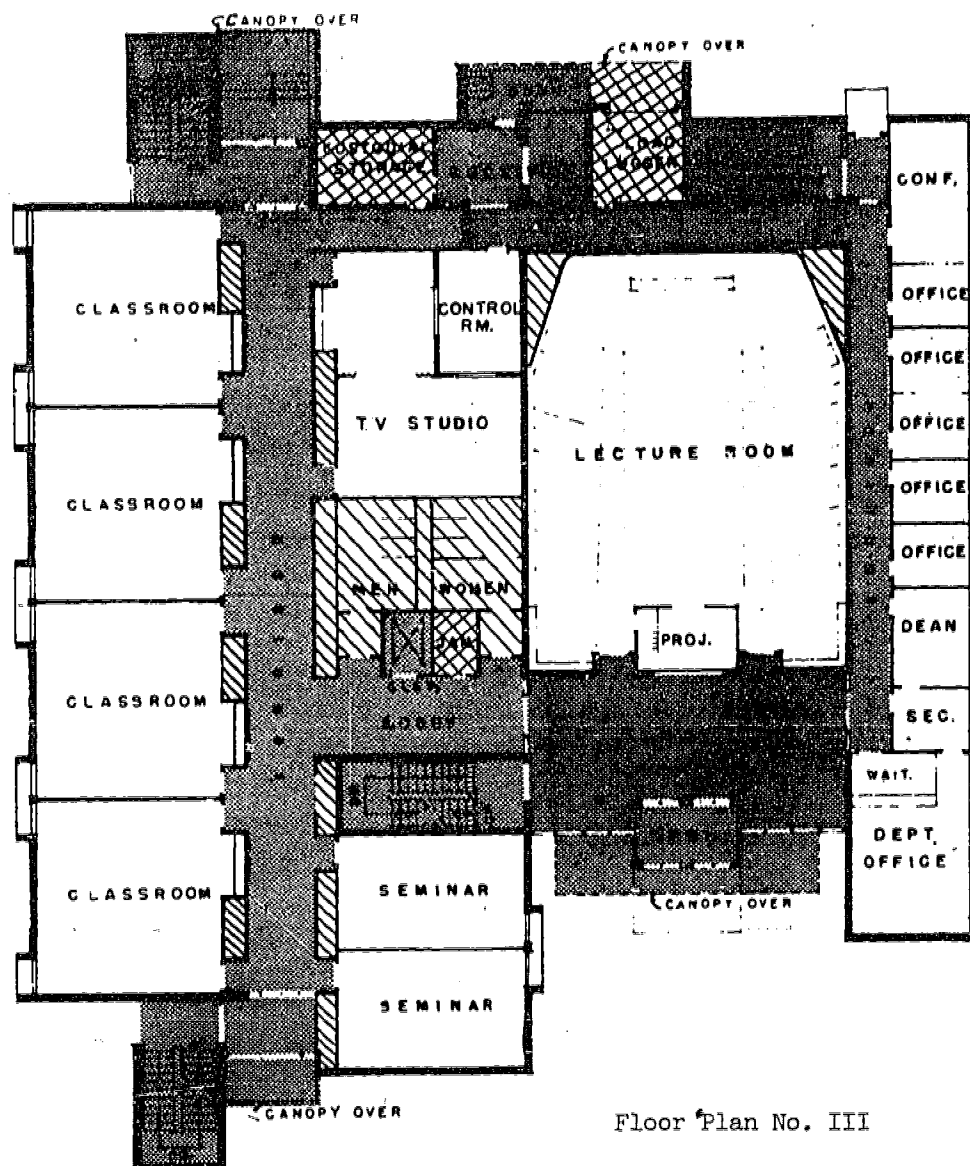


Key: NSF (Net Square Footage) =

Net Square Footage is the difference between GSF (see Floor Plan I) and "Construction Area" (the dark portions of Floor Plan II).

"Construction Area" is simply that portion of the gross area which cannot be put to use because of the presence of structural features of the building.

Examples of areas normally classified as construction area are exterior walls, fire walls, permanent partitions, and unusable areas in attics, basements, or comparable portions of the building.



Floor Plan No. III


Key: NASF (Net Assignable Square Footage) =

Net Assignable Square Footage should be construed to mean all areas of a building which are assigned to, or available for assignment to, an occupant, including every type of space functionally usable by an occupant (excluding circulation, mechanical, and custodial areas as defined below).

Key: Circulation Areas =


"Circulation Area" should be construed to mean that portion of the gross area--whether or not enclosed by partitions--which is required for physical access to some subdivision of space.

Circulation areas should include, but not be limited to: corridors (access, public, service, also "phantom" for large unpartitioned areas); elevator shafts; escalators; fire towers or stairs; stairs and stair halls; loading platforms (except when required for operational reasons and, thus, includable in net assignable area); lobbies (elevator, entrance, public, also public vestibules).

Key: Mechanical Areas = 

"Mechanical Area" should be construed to mean that portion of the gross area designed to house mechanical equipment, utility services, and non-private toilet facilities.

Mechanical area should include, but not be limited to: Air-duct shafts; boiler rooms; fixed mechanical and electrical equipment rooms; fuel rooms; mechanical service shafts; meter and communications closets; service chutes; stacks; and non-private toilet rooms (custodial and public).

Key: Custodial Areas = 

"Custodial Area" should be construed to mean the sum of all areas on all floors of a building used for building protection, care, maintenance, and operation.

Included should be such areas as custodial, locker rooms, janitors' closets, maintenance storerooms.

f. APPENDIX II

DEFINITIONS OF ROOM TYPES

SURVEY OF HEALTH PROFESSIONS EDUCATION FACILITIES

The taxonomy of room-type codes used in this survey is based on the U. S. Office of Education's "Higher Education Facilities Classification and Inventory Procedures Manual", Publication OE-51016. Notably, while our room-type definitions use these codes as a starting point, the focus upon health professions education facilities may require reappraisal of the codes currently assigned to rooms, in order that the rooms be reported properly on the questionnaire. Also please note that room classifications are a function of physical characteristics and usage, rather than physical location.

Classroom-Type Instructional Space - Space used by classes which do not require special-purpose equipment for student use. Included in this category are rooms generally referred to as general purpose classrooms, lecture rooms, lecture-demonstration rooms, seminar rooms, conference rooms (if used for teaching) and associated service areas. The following room types are included in this category for the purpose of this survey:

- 110 - Classroom
- 115 - Classroom Service
- 350 - Conference Room (used for teaching)
- 355 - Conference Room Service (by association with conference room)

This category does not include conference rooms whose primary function is that of administrative meetings (as opposed to classes).

Class Laboratories - Space used by regularly scheduled classes which require special-purpose equipment for individual or group participation, experimentation, observation, or practice in a field of study. Also included are all associated class laboratory facility service areas. The following room types are included in this category for the purpose of this survey, except as specifically noted in the instructions:

- 210 - Class Laboratory
- 215 - Class Laboratory Service (excluding animal rooms)
- 220 - Special Class Laboratory
- 225 - Special Class Laboratory Service
- 230 - Individual Study Laboratory
- 235 - Individual Study Laboratory Service

Important: Certain types of class laboratories may be used for both patient-care purposes and for instructional activities not actually involving patients. Where this occurs, Respondent should treat such facilities as patient-care facilities for reporting purposes. Thus, any rooms used for patient care should not be reported under "class laboratories".

Special-Purpose Class Laboratory - (A subset of room types 210 through 235). This definition is to be used only when reporting room use data. A Special-Purpose Class Laboratory is a class laboratory that is equipped and oriented to serve a single or unique purpose (such as a gross anatomy laboratory) in the instruction of a health professions student.

Research and Research Training Space - Space used for laboratory applications, research, and/or training in research methodology, which requires special-purpose equipment for staff and/or graduate student experimentation or observation. Included in this category are rooms generally referred to as research laboratories, research laboratory-offices, and associated service areas. The following room types are included in this category for the purpose of this survey:

- 250 - Non-Class Laboratory
- 255 - Non-Class Laboratory Service (excluding animal rooms)
- 310 - Office (Research)
- 315 - Office Service (Research)

Library Space - Space used for the orderly collection, storage and retrieval of knowledge. In determining whether a facility which houses books and similar material shall be reported as library space, both of the following criteria must be met:

- a. At least one full-time attendant is present.
- b. There is systematic administration and prosecution of programs of acquisition, cataloging, and reference work.

Library space may be housed in a central location or it may be decentralized and housed in two or more separate facilities of varying size. However, each such facility must meet the criteria in order to qualify as library space. Include study rooms, book storage rooms, reading rooms, carrels, individual study stations, study booths, library processing rooms, library administrative areas, and associated library facilities service areas which are directly related to library functions. The following room types shall be included in this category for the purpose of this survey:

- 310 - Office (Library)
- 315 - Office Service (Library)
- 350 - Conference Room (Library)
- 355 - Conference Room Service (Library)
- 410 - Study Rooms
- 420 - Stacks
- 430 - Open-Stack Reading Rooms
- 440 - Library Processing Rooms
- 455 - Study Facilities Service

Auditoriums - Rooms designed and equipped for the assembly of large numbers of people. The following room types are included in this category for the purpose of this survey:

- 610 - Assembly Facilities
- 615 - Assembly Facilities Service

A large lecture hall should be reported as an auditorium if its seating capacity is at least twice the size of Respondent's most recent entering class of Health Professions students (to the exclusion of allied health, etc.).

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If the Respondent should substitute any of the following large facilities of a university for auditoriums, they may be reported as auditoriums:

- 510 - Armory Facilities
- 515 - Armory Facilities Service
- 520 - Athletic-Physical Education Facilities
- 523 - Athletic Facilities Spectator Seating
- 525 - Athletic-Physical Education Facilities Service

Faculty Offices - Rooms used by faculty working at a desk or table. Included in this category is all office space which is: (1) assignable to members of the teaching faculty whose primary function is that of teaching; or (2) used by graduate and teaching assistants. The office space assigned to a department head whose primary function is that of teaching thus should be included in this faculty office category. However, the office space of a dean whose primary function is that of administrator should not be included in the faculty office category but should be included under "Administrative Offices and Areas". The following room types are included in this category for the purpose of this survey:

- 310 - Office (Faculty)
- 315 - Office Service (Faculty)

Administrative Offices and Areas - Rooms used by support staff working at a desk or table. Included in this category are rooms generally referred to as administrative offices, clerical offices, and administrative conference rooms, as well as all associated service areas. The following room types are included in this category for the purpose of this survey:

- 310 - Office (Administrative)
- 315 - Office Service (Administrative)
- 350 - Conference Room (Administrative)
- 355 - Conference Room Service (Administrative)

Animal Facilities - For the purposes of this survey, animal facilities for instruction and research are those physical areas associated with laboratory animal care, whether physically dispersed or in one location. Schools of Veterinary Medicine should exclude from this category all inpatient and outpatient diagnostic and care facilities for animal patients but should include animal resource farms if controlled or operated by Respondent.

Only the following areas should be included (exclude open pasture and other wholly nonsheltered areas):

Type I - Completely enclosed animal rooms with environmental controls; including animal service areas, such as cage washing and sterilization, receipt and processing, storage, office space, incinerator or protected area for refuse, X-ray facilities, diagnostic laboratory necropsy, surgery.

Type II - Combination indoor-outdoor housing and restricted exercise areas, such as kennels with runs, indoor-outdoor primate facilities, etc. (include both indoor and outdoor space).

Type III - Shelters with no environmental controls (e.g., barns, open sheds, etc.).

The following room types are among those included as animal facilities for instruction and research:

- 215 - Class-Laboratory Service (Animal rooms only)
- 255 - Non-Class Laboratory Service (Animal rooms only)

On-Site Patient Care Facilities - Inpatient and ambulatory care facilities (and associated service areas) which are located within Respondent's didactic buildings. The following list of room types may have been used as a starting point for the classification of such "on-site" facilities, but may not be exhaustive.

- 810 - Human Hospital-Clinic Facilities
- 815 - Human Hospital-Clinic Facilities Service
- 820 - Human Hospital-Patient Care Facilities
- 825 - Human Hospital-Patient Care Facilities Service
- 840 - Dental Clinic Facilities
- 845 - Dental Clinic Facilities Service
- 850 - Veterinary Hospital-Clinic Facilities
- 855 - Veterinary Hospital-Clinic Facilities Service
- 860 - Veterinary Hospital-Animal Care Facilities
- 865 - Veterinary Hospital-Animal Care Facilities Service

Other Space - Include in this category all remaining net assignable space not accounted for in the above listed categories, but used for, or in support of, the educational process. For the purpose of this survey, the following room types are included under "Other Space"; but may not be an exhaustive listing:

- 510 - Armory Facilities*
- 515 - Armory Facilities Service*
- 520 - Athletic-Physical Education Facilities*
- 523 - Athletic Facilities Spectator Seating*
- 525 - Athletic-Physical Education Facilities Service*
- 530 - Audio-Visual, Radio, TV Facilities
- 535 - Audio-Visual, Radio, TV Facilities Service
- 540 - Clinic Facilities (Non-Medical)
- 545 - Clinic Facilities Service (Non-Medical)
- 550 - Demonstration Facilities
- 555 - Demonstration Facilities Service
- 560 - Field-Service Facilities
- 590 - Other Special-Use Facilities
- 595 - Other Special-Use Facilities Service
- 620 - Exhibition Facilities (Non-Instructional)
- 625 - Exhibition Facilities Service (Non-Instructional)
- 630 - Food Facilities (Outside of Residence Halls)
- 635 - Food Facilities Service (Outside of Residence Halls)
- 640 - Health Facilities (Student)
- 645 - Health Facilities Service (Student)
- 650 - Lounge Facilities
- 655 - Lounge Facilities Service
- 660 - Merchandising Facilities (Bookstore, etc.)
- 665 - Merchandising Facilities Service

* If these facilities are used as auditoriums, do not include as "Other Space".

670 - Recreation Facilities
 675 - Recreation Facilities Service
 690 - Other General-Use Facilities
 695 - Other General-Use Facilities Service
 710 - Data Processing-Computer Facilities
 715 - Data Processing-Computer Facilities Service
 720 - Shop Facilities
 725 - Shop Facilities Service
 730 - Storage Facilities
 735 - Storage Facilities Service
 740 - Vehicle Storage
 745 - Vehicle Storage Service
 750 - Central Food Stores
 760 - Central Laundry
 790 - Other Supporting Facilities
 795 - Other Supporting Facilities Service

NOTES:

The following room types are excluded from the survey:

910 - Residence for Single Persons
 911 - Dormitory
 912 - Food Service in Residence Halls
 920 - One-Family Dwelling
 930 - Multiple Family Dwelling

Also, exclude the following "nonassignable" areas when reporting the square footage of the above room types:*

010 - Custodial Area
 020 - Circulation Area
 030 - Mechanical Area
 040 - Construction Area

There are a limited number of boxes on the questionnaire dealing with Gross Square Feet and Net Square Feet where codes 010, 020, 030 and 040 are included.

C3. Parent Institution Questionnaire



a. (TRANSMITTAL LETTER FOR PARENT INSTITUTION PACKAGE)

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH
BETHESDA, MARYLAND 20014

BUREAU OF HEALTH MANPOWER EDUCATION

May 11, 1973

The Parent Institution Questionnaire on facilities as described in our letter of May 1, 1973 is enclosed.

Also enclosed are:

1. A General Information and Instruction Pamphlet citing the purpose and scope of the survey, the page-by-page instructions for completing the questionnaire, and other information;
2. Appendix I - Definitions of Terms Used in the Questionnaire;
3. Appendix II - Definitions of Column Headings on the Questionnaire.

The questionnaire (to be completed at the University level) deals with joint-use facilities provided to the University health professions schools. It complements the questionnaire on allocated facilities that has been forwarded for completion to your health professions schools.

The complexity of the survey indicates that a person very familiar with your university and the administrative officials be assigned the responsibility for compiling and reporting the requested data.

Personnel of RRC International, Inc., the agency conducting the survey for us, will be on call to help resolve difficulties, or to suggest solutions to common problems. We ask you to complete and return the enclosed post card to RRC as soon as possible to establish communication. Should any question arise which needs clarification, do not hesitate to contact RRC International, Inc., as follows:

Dr. Allen Faisack, Project Director
RRC International, Inc.
1125 Peoples Avenue
Troy, New York 12181
Telephone: (518) 774-8114

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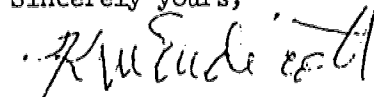
Page - 2

We hope that you will be able to complete and return the questionnaire to RRC by June 30, 1973. The results of this survey are important to everyone, and its success depends upon the effort of each and every respondent. This survey represents an inventory of the total health professions education sector; therefore, a 100% response will improve its usefulness.

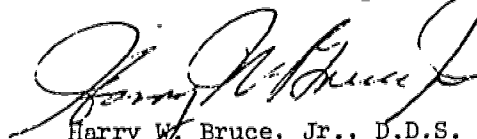
We know that the survey imposes a major demand on all respondents, but we think that the results will be of internal value to respondents. The results of the survey will be published and made available to each respondent.

Again, we thank you for your cooperation in this important undertaking.

Sincerely yours,



Kenneth M. Endicott, M.D.
Director
Bureau of Health Manpower Education



Harry W. Bruce, Jr., D.D.S.
Director
Division of Physician and
Health Professions Education

Enclosures

b. GENERAL INFORMATION AND INSTRUCTION PAMPHLET

SURVEY OF HEALTH PROFESSIONS EDUCATION FACILITIES
IN THE PUBLIC AND PRIVATE NONPROFIT INSTITUTIONS
OF THE UNITED STATES--1973

PURPOSE AND SCOPE

One of the basic missions of the Bureau of Health Manpower Education, National Institutes of Health, is to overcome today's health manpower shortage that adversely affects the delivery of health care in the Nation. Extensive professional judgment holds that insufficient and inadequate health professions educational facilities may be among the primary causes impeding the production of the necessary manpower.

The Division of Physician and Health Professions Education of the Bureau of Health Manpower Education considers it essential to conduct a national mail survey to verify and identify any existing facility inadequacies in health professions schools. This will be done by type of school, geographic location, and other factors. The survey will also assess the capacity of schools to increase their manpower outputs within existing resources. Survey results, in conjunction with other information, will assist the Executive Branch of the Government and the Congress to define more accurately their goals and priorities in the health area, and will aid in formulating a solution to the facilities aspects of the manpower problem.

Although many reports and studies bear on the facilities problem, none approaches the in-depth effort proposed by this survey. While it is recognized that the survey imposes a major demand on the respondent institutions, it is felt that such a survey is essential if we are to develop meaningful facilities data aimed ultimately at aiding all types of health professions schools and significantly advancing the Nation's health care system.

Please be assured that the data you provide will be treated as professionally privileged. Reports prepared from the survey will not reveal specific data of any single institution. A copy of the final report will be forwarded to each respondent.

SUBJECT MATTER OF SURVEY

Data is sought on the amount, types, and condition of space currently used for undergraduate, graduate, and continuing education in the Nation's health professions schools. Information is also sought as to the numbers of students, faculty and support staff occupying the space, and the degree of overcrowding, if any. The intensity of space utilization will be studied, as well as information concerning the various needs or problems confronting the respondents. Data on ongoing construction and remodeling, and a projection of future such activities round out the survey.

DEVELOPMENT OF THE SURVEY

Initial planning of the survey began in July, 1970. Objectives, uses and justification of the survey were carefully spelled out. A contract was let

with Rensselaer Research Corporation (now, RRC International, Inc.) of Troy, New York to assist in this major undertaking. A panel of 13 consultants, representing the eight health professional disciplines and expertise in teaching support services, libraries and hospitals, was appointed and met periodically with NIH and RRC to provide advice and guidance in the survey. All the health professions school associations, as well as interested Federal and non-Federal agencies, were also consulted and their advice sought. Finally, the survey forms were pretested at nine health professions education institutions prior to the full-scale mailing to approximately 300 existing and developing schools of dentistry, medicine, optometry, osteopathy, pharmacy, podiatry, public health and veterinary medicine.

DEFINITIONS

Due to the variety of health professions schools being surveyed, it is anticipated that much of the terminology relevant to this effort will not be standard over the nation. To help assure compatibility in reporting procedures, those terms most critical to the proper completion of the questionnaire have been defined in Appendices I and II.

Appendix II, containing the definitions of various facilities types (and corresponding directly with the reporting requirements of the survey instrument) has been separated from Appendix I for ease of reference.

DUE DATE AND RETURN OF QUESTIONNAIRES

The questionnaires should be completed and forwarded to the following address by June 30, 1973:

Health Professions Facilities Survey
RRC International, Inc.
1125 Peoples Avenue
Troy, New York 12181

OVERVIEW OF PARENT INSTITUTION QUESTIONNAIRE (BLUE)

This questionnaire, to be completed by the parent institution, deals solely with joint-use space provided by the parent institution (or by a non-health professions school, department or health science center under its jurisdiction) to its health professions schools.

- Page 1: Identifies and characterizes parent institution.
- Page 2: Obtains the current inventory of joint-use space.
- Page 3: Requests data on ongoing and fully authorized construction and remodeling of joint-use facilities.
- Page 4: Obtains data on the Audiovisual Teaching Support Services provided by the parent university, and attempts to determine parent institution's construction plans for joint-use facilities over the next 10 years.
- Page 5A/ 5B: Obtains data as to the current inventory, ongoing construction, and projected 1983 construction plans for University owned hospitals.
- Page 6: Solicits Respondent's general comments or clarifications as to any of his responses to the questionnaire.

GENERAL INSTRUCTIONS

1. It is urged that the instructions in this pamphlet be utilized while the questionnaire is being completed. Circled item numbers on the questionnaire indicate items for which necessary instructions have been provided. Should any question arise regarding the proper reporting of space, or interpretation of instructions, definitions, and terminology please call RRC International, Inc. collect at:

| | |
|--------------|--|
| 518-274-8112 | Monday through Friday |
| -8114 | between the hours of 8:30 A.M. and 5:00 P.M. |
| -8242 | (Eastern Time Zone) |

Individuals qualified to discuss the form will be available for your assistance.

It is also suggested that much time and effort may be saved if Appendices I and II are studied prior to any attempt to complete the questionnaire.

2. The survey pretest indicated that a critical first step in the data-gathering phase of Respondent's effort is the development of a room-by-room listing of all facilities currently available for joint-use. Many campuses will have such a listing, at least on a campus-wide basis, as a result of the Office of Education's HEGIS efforts (Higher Education General Information Survey). In other cases, floor plans will provide an acceptable substitute for the room-by-room listing.

For each room used by at least one health professions school, but not allocated to a health professions school, the following information should be listed:

- (a) Type of room.
- (b) Ownership of building in which room is located.
- (c) Floor area.
- (d) Number of student stations.
- (e) Condition of the room as related to its use (satisfactory for purpose used, needs remodeling, needs replacement).
- (f) Whether or not room was at least partially constructed or remodeled with HPEA assistance.

The same data elements (except for condition of space) should also be obtained for:

- (a) rooms in buildings which are undergoing construction or are fully authorized for construction and will, upon completion, be jointly utilized; and
- (b) rooms of the types defined in Appendix II which are found in University-owned Hospital and Clinic facilities.

Proper tallying of subsets of the above data will essentially yield the information necessary to fill out pages 2 and 3. Data for the remainder of the form will be found in a variety of offices. A-89

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3. All square footage and dollar figures over the value 500 shall be rounded to the nearest thousand and stated in thousands. For example, 23,748 net assignable square feet shall be reported as 24; 17,500 would be reported as 18; \$17,499 as \$17. Figures under 500 should be rounded and reported as one-place decimal portions of 1000. Thus 380 square feet would be reported as .4.
4. Please note that not all pages or boxes will be completed by all Respondents. The various pages and the large number of boxes are included in the questionnaires so that every Respondent will be able to provide the entries that pertain to his school. Boxes which do not apply to Respondent may either be filled with zeroes or left blank.
5. All space in residence halls (dormitories, food service areas, etc.) is excluded from this survey.
6. The term "as of the survey date" as used in these instructions refers to the approximate date of Respondent's receipt of this survey package.

PAGE-BY-PAGE INSTRUCTIONS FOR COMPLETING THE
PARENT INSTITUTION QUESTIONNAIRE (BLUE)

General This form deals solely with joint-use space provided by the parent institution (or by a non-health professions school, department, or health science center under its jurisdiction) to its health professions schools. If no joint-use space is provided (or planned), the parent institution shall complete only page 1 of the form.

◀ PAGE 1 ▶ General Information

General Certain data may have been entered from NIH's computer files. Please correct any erroneous entries and fill in any blank items.

Specific

- Item 2 The IMPAC code is an internal code used by NIH. Do not specify this code if it has been left blank.
- Item 4 Check the designations that best describe the health professional curricula administered by Respondent. Check box (i) only if parent institution has a combination school (such as a School of Medicine and Dentistry) whose facilities are inseparable by type of school. If Respondent has a combination school whose component schools use separate facilities, Respondent should report them as separate schools. If box (i) is checked, please indicate in the space provided the letter codes (a through h) identifying the health professions programs that constitute this combination school.

◀ PAGE 2 ▶ Joint-Use Facilities Used by Health Professions Schools

- General (a) This page elicits the nature and extent of the joint-use space currently provided to health professions schools. It thus covers space which the health professions schools use, but which is not allocated to any one of them.
- (b) Report only that space which is available for use as of the survey date.

Specific

Item 1 Report in columns B through J the total net assignable square feet (NASF) of joint-use space of the types referred to in the column headings. Please see Appendix II for the definitions of these types of space. Do not include facilities being constructed as of the survey date (these will be reported on page 3). Space which is currently unavailable for use due to remodeling should be reported as "other space" (column J).

Item 2 See Appendix I for the definition of "condition of space".

- Item 4 The number of student stations in "Library Space" may be approximated by a count of the number of chairs available for student seating in all library areas.
- Item 5 Do not include service areas when reporting number of rooms.
- Item 6 Even if a given room was only partially funded with HPEA aid, include that room's total NASF. (See definition of HPEA.)
- Items 7-10 Similar to instructions for items 1, 2, 4, and 5.

◀ PAGE 3 ▶ Ongoing and Fully Authorized Construction and Remodeling of Joint-Use Facilities

- General
- (a) Report only that construction or remodeling of joint-use facilities which will not be allocated to any health professions school but which will be used by at least one such school upon completion.
- (b) Do not report any past construction or remodeling.

Specific

- Items A.1 and A.2 These items attempt to obtain a total overview of the ongoing construction and remodeling of joint-use space. (See Appendix I for definitions of gross and net square feet.) Respondent should report a pro-rata share of the costs, GSF, and NSF of buildings which will contain both joint-use and allocated facilities. This share may be computed by finding the NASF of the entire building, and calculating the fraction which is to be used as joint-use space. This fraction may then be applied to both cost and square footage figures prior to posting.
- In column d ("NSF of HPEA ASSIST.") enter the Net Square Footage of space whose remodeling or construction was at least partially funded with HPEA assistance. (See Appendix I for definition of HPEA.)
- Item B The sum of items a-d must agree with item 2, column b. Where purposes of construction overlap, and clear-cut separations by the four purposes are difficult, please provide your best estimates.
- Items C.2.a-i Report the same fractional parts (of the actual amount from each source) as used in items A.1. and A.2, unless more specific data are available.
- Item D.1 Confine the reporting of remodeling to only those rooms that are actually undergoing remodeling (or are fully authorized to be remodeled). When remodeling converts space from one room type to another, report the space in terms of the new room type. If any space being remodeled was included in "other space" (column J) on page 2, it should now be reported under the appropriate column headings.
- Items E.1-E.4 In estimating the revised inventory of joint-use space, include all ongoing and fully authorized construction and those portions of the space reported on page 2 which will be retained as joint-use space.

In item E.3 the number of student stations in library space may be

approximated by a count of the number of chairs expected to be available for student seating in all library areas.

When reporting numbers of rooms in item E.4, do not include service areas.

◀ PAGE 4 ▶

Section A Refer to Appendix I for the definition of "Audiovisual Teaching Support Facilities".

Section B Future Construction and Remodeling

General The construction plans for joint-use facilities should reflect as realistically as possible such constraints as the projected availability of construction funds, planning lead-time, available operating funds, desired growth rate in the size of the health professional student enrollment, availability of faculty, etc.

Specific

Item 3 The sum of items a-d must agree with item 1. Where purposes of joint-use construction overlap, and clear-cut separations by the four purposes are difficult, please provide your best estimates.

◀ PAGE 5A and 5B ▶ University Owned Hospital(s) and Clinic(s)

- General
- (a) Do not report a hospital or clinic used by only one health professions school.
 - (b) A separate page should be prepared for each owned hospital or clinic reported.
 - (c) Column H (Administrative Offices) should include only those offices assigned to administrative personnel of an educational program (e.g., Dean of Students or Registrar). Such offices as the admitting office, hospital administrator, finance office, maintenance office, etc., should be excluded.
 - (d) Column I (Animal Facilities) excludes laboratory and associated service facilities for animals used for diagnostic purposes.
 - (e) If Respondent does not presently own a hospital or clinic and is not currently constructing or remodeling one, write "NONE" across the page in bold letters and continue to page 6.

Section A

Specific

Item 3 See Appendix I for definition of "Locale".

Item 4 Report the GSF of the entire hospital or clinic even though students may use only a portion of that facility for academic purposes. (See Appendix I for definition of Gross Square Feet).

- Items 5 and 6 Even if a given room was only partially funded through the HPEA Act (see definition) include that room's total Gross or Net Square Footage, as appropriate. (See Appendix I for definition of Net Square Feet.)
- Item 7 For schools of Veterinary Medicine, substitute ANIMAL HOLDING UNITS for "beds".
- Item 8b For a given room, the number of patient stations shall be the number of patients who could be treated simultaneously in that room. Aggregate and report the total number of patient stations in all examining and treatment rooms used for student instruction.
- Item 12 Do not include service areas when reporting number of rooms.
- Item 13 For each type of space, the need for additional NASF is equal to the total NASF needed (for health professions students only--see Appendix I for definitions) minus the NASF available for use as of the survey date.
- In determining NASF available, do not include space involved in ongoing construction and remodeling unless it represents space which is currently usable. (It is recognized that completion of ongoing construction and remodeling may reduce some or all of the needs reported.)
- Item 14 The list below indicates five possible reasons for the needs expressed in item 13. For each type of space needed, enter in item 14 the letter code of the reason which best applies:
- A. Relief of overcrowding (Code = A)
 - B. Poor physical condition (Code = B)
 - C. Replacing obsolete space (Code = C)
 - D. Missing from current inventory (Code = D)
 - E. Other (specify on page 6) (Code = E).
- Item 16 The sum of a, b, and c should equal item 10, column A.

Section B

General Do not report any past construction or remodeling.

Specific

- Items 1a and 1b Even if a particular room was only partially funded with HPEA assistance, include that room's total net square footage.
Column 4
- Item 2 Answer only if ongoing and fully authorized construction and remodeling will result in a change to the number of beds and/or patient stations available for student use. If the number of beds and/or patient stations will decrease, report the decrease by inserting a minus sign in front of the difference.

- Item 3 The sum of items a-d must agree with item 1b, column 2. Where purposes of construction overlap, and clear-cut separations by the four purposes are difficult, please provide your best estimates.
- Item 6 In estimating the revised inventory, include all ongoing and fully authorized construction, and those portions of the current inventory which will be retained.
- Item 7 In estimating the remaining need, first estimate that enrollment to be accommodated upon completion of the construction and remodeling.
- Item 8 See instructions for item 14 in section A.

Section C

- Item 1 Answer all questions in terms of space available for use by health professions students.
- Item 2 The sum of items a-d should equal the figure reported in item C.1.b.

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE
NATIONAL INSTITUTES OF HEALTH
BUREAU OF HEALTH MANPOWER EDUCATION
**SURVEY OF HEALTH PROFESSIONS EDUCATION FACILITIES
IN THE NON-PROFIT SECTOR: 1973**
PARENT INSTITUTION QUESTIONNAIRE

| | | |
|----|--|---|
| 1. | NAME OF PARENT INSTITUTION: | ② |
| 3. | ADDRESS: _____ STREET _____ CITY _____ STATE _____ ZIP _____ | |
| ④ | TYPES OF HEALTH PROFESSIONS CURRICULA OFFERED (CHECK (✓) ALL WHICH APPLY): <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> (a) <input type="checkbox"/> DENTISTRY (b) <input type="checkbox"/> MEDICINE (c) <input type="checkbox"/> OPTOMETRY </div> <div style="width: 30%;"> (d) <input type="checkbox"/> OSTEOPATHY (e) <input type="checkbox"/> PHARMACY (f) <input type="checkbox"/> PODIATRY </div> <div style="width: 30%;"> (g) <input type="checkbox"/> PUBLIC HEALTH (h) <input type="checkbox"/> VETERINARY MEDICINE (i) <input type="checkbox"/> COMBINATION OF (ENTER LETTERS) _____ </div> </div> | |
| 5. | INDIVIDUAL WHO MAY BE CONTACTED REGARDING PREPARATION OR COORDINATION OF THIS QUESTIONNAIRE: <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 35%;">NAME _____</div> <div style="width: 35%;">TITLE _____</div> <div style="width: 30%;">TELEPHONE NO. _____</div> </div> | |
| 6. | TYPE OF CONTROL OF RESPONDENT (CHECK (✓) ONE): <div style="margin-top: 10px;"> (a) <input type="checkbox"/> PRIVATE NON-PROFIT (b) <input type="checkbox"/> PUBLIC (STATE) (c) <input type="checkbox"/> PUBLIC (COUNTY) (d) <input type="checkbox"/> PUBLIC (CITY) (e) <input type="checkbox"/> OTHER (SPECIFY) _____ </div> | |
| 7. | DOES PARENT INSTITUTION PROVIDE (OR PLAN TO PROVIDE) "JOINT-USE" SPACE (SEE DEFINITION) TO ONE OR MORE HEALTH PROFESSIONS SCHOOLS? SPACE CAN BE PROVIDED BY THE PARENT INSTITUTION, BY A NON-HEALTH PROFESSIONS SCHOOL, OR BY THE HEALTH SCIENCES CENTER OF THE CITY. <div style="text-align: right; margin-right: 50px;"> <input type="checkbox"/> YES <input type="checkbox"/> NO </div> IF "YES", PARENT INSTITUTION SHALL COMPLETE REMAINING PAGES OF THIS FORM. IF "NO", PARENT INSTITUTION SHALL COMPLETE ONLY PAGE 1. FORWARD BY <u>JUN 30 1973</u> TO: | |

HEALTH PROFESSIONS FACILITIES SURVEY
RRC INTERNATIONAL, INC.
1125 PEOPLES AVENUE
TROY, NEW YORK 12181

JANUARY 31, 1975

DEPARTMENT OF HEALTH, EDUCATION AND WELFARE

NATIONAL INSTITUTES OF HEALTH

BUREAU OF HEALTH MANPOWER EDUCATION

SURVEY OF HEALTH PROFESSIONS EDUCATION FACILITIES

IN THE NON-PROFIT SECTOR: 1973

PARENT INSTITUTION QUESTIONNAIRE

②

IMPAC CODE

STREET

CITY

STATE

ZIP

CURRICULA OFFERED (CHECK (✓) ALL WHICH APPLY):

(d) ☐ OSTEOPATHY(g) ☐ PUBLIC HEALTH(e) ☐ PHARMACY(h) ☐ VETERINARY MEDICINE(i) ☐ PODIATRY(j) ☐ COMBINATION OF (ENTER LETTER-CODES)

FACTS REGARDING PREPARATION OR COORDINATION OF THIS QUESTIONNAIRE:

TITLE

TELEPHONE NO.

EXTENSION

TYPE (CHECK (✓) ONE):

(a) ☐ PRIVATE NON-PROFIT(b) ☐ PUBLIC (STATE)(c) ☐ PUBLIC (COUNTY)(d) ☐ PUBLIC (CITY)(e) ☐ OTHER (SPECIFY) _____

WILL PROVIDE (OR PLAN TO PROVIDE) "JOINT-USE" SPACE (SEE DEFINITION) TO ONE OR MORE HEALTH PROFESSIONS SCHOOLS? (JOINT-USE BY PARENT INSTITUTION, BY A NON-HEALTH PROFESSIONS SCHOOL, OR BY THE HEALTH SCIENCES CENTER OF THE UNIVERSITY)

☐ YES☐ NO

PLEASE COMPLETE REMAINING PAGES OF THIS FORM. IF "NO", PARENT INSTITUTION SHALL COMPLETE ONLY PAGE 1 OF THIS FORM AND RETURN TO:

HEALTH PROFESSIONS FACILITIES SURVEY
 RRC INTERNATIONAL, INC.
 1125 PEOPLES AVENUE
 TROY, NEW YORK 12181

c. Parent Institution Questionnaire

JOINT-USE FACILITIES CURRENTLY PROVIDED TO HEALTH PROFESSIONS SCHOOLS

(EXCLUDE SPACE IN HOSPITALS AND CLINICS)

INSTRUCTIONS: REPORT ALL SPACE USED BY THE PARENT INSTITUTION'S HEALTH PROFESSIONS SCHOOLS, BUT NOT ALLOCATED TO ANY ONE OF THEM.

CHECK (✓) THE HEALTH PROFESSIONS SCHOOLS USING JOINT-USE FACILITIES:

1. ☐ DENTISTRY 4. ☐ OSTEOPATHY 7. ☐ PUBLIC HEALTH
 2. ☐ MEDICINE 5. ☐ PHARMACY 8. ☐ VETERINARY MEDICINE
 3. ☐ OPTOMETRY 6. ☐ PODIATRY 9. ☐ COMBINATION SCHOOL

OWNED FACILITIES

| | | A | B | C | D | E | F | G | H | I | J |
|---|--|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| ① | NET ASSIGNABLE SQUARE FEET (NASF) | | | | | | | | | | |
| ② | NASF OF LINE 1 WHICH ARE IN SATISFACTORY CONDITION | | | | | | | | | | |
| 3 | CHECK (✓) EACH TYPE OF SPACE CONSTRUCTED OR REMODELED WITH HPEA ASSISTANCE | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| ④ | NUMBER OF STUDENT STATIONS ON LINE 1 | | | | | | | | | | |
| ⑤ | NUMBER OF ROOMS REPRESENTED ON LINE 1 | | | | | | | | | | |

- ⑥ HOW MANY OF THE NASF IN ITEM 1 COLUMN A WERE CONSTRUCTED OR REMODELED WITH HPEA AID

| CONSTR'D | REM'D |
|----------|-------|
| | 6 |

RENTED, LEASED OR OTHER FACILITIES

| | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|--|
| ⑦ | NET ASSIGNABLE SQUARE FEET | | | | | | | | | | |
| ⑧ | NASF OF LINE 7 WHICH ARE IN SATISFACTORY CONDITION | | | | | | | | | | |
| ⑨ | NUMBER OF STUDENT STATIONS ON LINE 7 | | | | | | | | | | |
| ⑩ | NUMBER OF ROOMS REPRESENTED ON LINE 7 | | | | | | | | | | |

11a. TOTAL NASF NOT SATISFACTORY (=SUM OF ITEMS 1 AND 7, COLUMN A MINUS SUM OF ITEMS 2 AND 8, COL. A).....

11b. IF ITEM 11a. IS NOT ZERO, HOW MANY NASF OF THIS UNSATISFACTORY SPACE COULD BE MADE SATISFACTORY THROUGH REMODELING.....

JOINT-USE FACILITIES CURRENTLY PROVIDED TO HEALTH PROFESSIONS SCHOOLS

(EXCLUDE SPACE IN HOSPITALS AND CLINICS)

INSTRUCTIONS: REPORT ALL SPACE USED BY THE PARENT INSTITUTION'S HEALTH PROFESSIONS SCHOOLS, BUT NOT ALLOCATED TO ANY ONE OF THEM.

SCHOOLS USING

HY 7. ☐ PUBLIC HEALTH8. ☐ VETERINARY MEDICINE9. ☐ COMBINATION SCHOOL

| | <div style="display: flex; justify-content: space-between;"> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">TOTAL OF COLUMNS B THROUGH J</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">CLASSROOM-TYPE INSTRUCTIONAL SPACE</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">CLASS LABORATORIES</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">RESEARCH AND RESEARCH TRAINING SPACE</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">LIBRARY SPACE</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">AUDITORIUMS</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">FACULTY OFFICES</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">ADMINISTRATIVE OFFICES AND AREAS</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">ANIMAL FACILITIES</div> <div style="writing-mode: vertical-rl; transform: rotate(180deg);">OTHER SPACE</div> </div> | | | | | | | | | |
|--------------|--|---|---|---|---|---|---|---|---|---|
| | A | B | C | D | E | F | G | H | I | J |
| (NASF) | | | | | | | | | | |
| CONSTRUCTED | | | | | | | | | | |
| ON LINE 1 | | | | | | | | | | |
| ED ON LINE 1 | | | | | | | | | | |

CHECK (✓) HERE

☐

IF NO OWNED FACILITIES ARE MADE AVAILABLE AS JOINT-USE SPACE

1 COLUMN A
ELED WITH HPEA AID

| CONSTR'D. | REMOD'LD |
|-----------|----------|
| | |

| | | | | | | | | | | |
|-------------|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | | |
| | | | | | | | | | | |
| ON LINE 7 | | | | | | | | | | |
| D ON LINE 7 | | | | | | | | | | |

CHECK (✓) HERE

☐

IF NO RENTED, LEASED OR OTHER FACILITIES ARE MADE AVAILABLE AS JOINT-USE SPACE

(=SUM OF ITEMS 1 AND 7, COLUMN A MINUS SUM OF ITEMS 2 AND 8, COL. A).....

 ANY NASF OF THIS UNSATISFACTORY SPACE
THROUGH REMODELING.....

IMPAC CODE _____

**ONGOING AND FULLY AUTHORIZED CONSTRUCTION AND REMODELING
OF JOINT-USE FACILITIES**
(EXCLUDE HOSPITALS AND CLINICS)

- a. REPORT ALL CONSTRUCTION AND REMODELING OF FACILITIES WHICH WILL NOT BE ALLOCATED TO ANY HEALTH PROFESSIONS SCHOOL, BUT WHICH WILL BE USED BY AT LEAST ONE SUCH SCHOOL UPON COMPLETION.
- b. ☐ IF RESPONDENT HAS NO CONSTRUCTION OR REMODELING TO REPORT, CHECK THE BOX TO THE LEFT AND PROCEED TO PAGE 4

(A) OVERVIEW

1. ALL JOINT-USE SPACE BEING (OR TO BE) REMODELED.....
2. OWNED NEW CONSTRUCTION OF JOINT-USE SPACE

| a. COST (Thousands) | b. GSF | c. NSF | d. NSF OF HPEA ASSIST. |
|---------------------------|-----------|-----------|---------------------------------|
| \$ | | | |
| \$ | | | |

(B) APPORTION GSF OF OWNED NEW CONSTRUCTION (ITEM A,2 Column b) AS TO PURPOSE:

1. EXPANDING ENROLLMENT 2. RELIEF OF OVERCROWDING 3. REPLACING OBSOLETE SPACE 4. OTHER PURPOSES

C. CONSTRUCTION AND REMODELING COSTS AND SOURCES OF FUNDS

1. SUM OF COSTS REPORTED IN ITEMS A1 AND A2..... \$

(2) HOW MUCH OF THE TOTAL REPORTED IN ITEM C1. IS FROM

a. INSTITUTION'S PRIVATE FUNDS \$

b. INSTITUTION'S BORROWING \$

c. STATE OR LOCAL FUNDS \$

d. FOUNDATIONS AND PHILANTHROPIES \$

e. HPEA CONSTRUCTION GRANTS \$

f. CHMTA LOAN GUARANTEES \$

g. CHMTA INTEREST SUBSIDIES \$

h. OTHER FEDERAL SOURCES \$

i. OTHER \$

D. ONGOING AND FULLY AUTHORIZED CONSTRUCTION AND REMODELING:

| | TOTAL OF COLUMNS B-J CLASSROOM TYPE IN- STRUCTIONAL SPACE CLASS LABORATORIES RESEARCH & RESEARCH TRAINING SPACE LIBRARY SPACE AUDITORIUMS FACULTY OFFICES ADMINISTRATIVE OFFICES AND AREAS ANIMAL FACILITIES OTHER SPACE | | | | | | | | | |
|---|--|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| | A | B | C | D | E | F | G | H | I | J |
| ① NASF OF OWNED SPACE BEING (OR TO BE) REMODELED | | | | | | | | | | |
| 2 NASF OF OWNED NEW CONSTRUCTION | | | | | | | | | | |
| 3. CHECK (✓) EACH TYPE OF SPACE CONSTRUCTED OR REMODELED WITH HPEA ASSISTANCE | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

(E) REVISED INVENTORY OF JOINT-USE SPACE AFTER ONGOING (OR FULLY AUTHORIZED) CONSTRUCTION AND REMODELING ARE COMPLETED:

| | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|
| 1. NASF OF OWNED SPACE | | | | | | | | | | |
| 2. NASF OF RENTED, LEASED OR OTHER SPACE | | | | | | | | | | |
| 3. NUMBER OF STUDENT STATIONS REPRESENTED ON LINES E.1 and E.2 | | | | | | | | | | |
| 4. NUMBER OF ROOMS REPRESENTED ON LINES E.1 and E.2 | | | | | | | | | | |

- F. INDICATE THE CALENDAR YEAR ALL ONGOING AND FULLY AUTHORIZED CONSTRUCTION AND REMODELING ARE EXPECTED TO BE COMPLETED: _____

497

(A) AUDIOVISUAL (A/V) TEACHING SUPPORT FACILITIES MADE AVAILABLE TO HEALTH PROFESSIONS SCHOOLS

1. NASF OF AUDIOVISUAL AND TV PRODUCTION FACILITIES

| CLASS- ROOMS | CLASS LABS | A TC |
|-----------------|---------------|---------|
| | | |

2. NUMBER OF ROOMS WITH BUILT-IN TV CAPABILITIES

3. NUMBER OF COMPUTER TERMINALS FOR COMPUTER AIDED INSTRUCTION.....

| LIBRARY | CLASS LABS | C |
|---------|---------------|---|
| | | |

4. NUMBER OF STUDY CARRELS AVAILABLE FOR A/V USE

5. NASF IN ALL SELF-INSTRUCTIONAL LABORATORIES OR INDIVIDUAL STUDY
AREAS EQUIPPED FOR A/V MEDIA USE.....**(B) FUTURE CONSTRUCTION AND MAJOR REMODELING OF JOINT-USE FACILITIES PLANNED
FOR COMPLETION BY 1983**(OVER AND ABOVE ONGOING CONSTRUCTION AND REMODELING REPORTED ON PAGE 3)
(EXCLUDE HOSPITALS AND CLINICS)REPORT ONLY THAT ANTICIPATED CONSTRUCTION OR REMODELING
OF FACILITIES WHICH WILL NOT BE ALLOCATED TO ANY HEALTH
PROFESSIONS SCHOOL, BUT WHICH WILL BE MADE AVAILABLE
FOR USE BY ONE OR MORE HEALTH PROFESSIONS SCHOOLS.

CHECK (✓) BOX a, or b, AND ENTER THE YEAR

a. ☐ THE ESTIMATES ON THIS PAGE ARE BASED
ON A DEVELOPMENT OR MASTER PLAN
EXTENDING THROUGH CALENDAR YEARb. ☐ THE ESTIMATES ON THIS PAGE ARE BASED
ON A DEVELOPMENT OR MASTER PLAN WHICH
IS IN PROCESS OF BEING FORMULATED
EXTENDING THROUGH CALENDAR YEAR

1. NASF OF OWNED NEW CONSTRUCTION

2. NASF OF MAJOR REMODELING

(3) APPORTION "NEW CONSTRUCTION" (ITEM 1) AS TO ITS PURPOSE:

a. NASF FOR EXPANDING ENROLLMENT

b. NASF FOR RELIEF OF OVERCROWDING.....

c. NASF TO REPLACE OBSOLETE FACILITIES

d. NASF FOR OTHER PURPOSES.....

4. TOTAL NASF OF JOINT-USE FACILITIES ANTICIPATED TO BE AVAILABLE
TO HEALTH PROFESSIONS SCHOOLS IN 1983.....

A/V) TEACHING SUPPORT FACILITIES MADE AVAILABLE TO HEALTH PROFESSIONS SCHOOLS
 VISUAL AND TV PRODUCTION FACILITIES

| |
|--|
| |
|--|

| CLASS- ROOMS | CLASS LABS | AUDI- TORIUMS |
|-----------------|---------------|------------------|
| | | |

 MS WITH BUILT-IN TV CAPABILITIES

| |
|--|
| |
|--|

 PUTER TERMINALS FOR COMPUTER AIDED INSTRUCTION.....

| |
|--|
| |
|--|

| LIBRARY | CLASS LABS | OTHER |
|---------|---------------|-------|
| | | |

 Y CARRELS AVAILABLE FOR A/V USE

| |
|--|
| |
|--|

 F-INSTRUCTIONAL LABORATORIES OR INDIVIDUAL STUDY
 FOR A/V MEDIA USE.....

| |
|--|
| |
|--|

**FUTURE CONSTRUCTION AND MAJOR REMODELING OF JOINT-USE FACILITIES PLANNED
 FOR COMPLETION BY 1983**

 (OVER AND ABOVE ONGOING CONSTRUCTION AND REMODELING REPORTED ON PAGE 3)
 (EXCLUDE HOSPITALS AND CLINICS)

 REPORT ONLY THAT ANTICIPATED CONSTRUCTION OR REMODELING
 OF FACILITIES WHICH WILL NOT BE ALLOCATED TO ANY HEALTH
 PROFESSIONS SCHOOL, BUT WHICH WILL BE MADE AVAILABLE
 FOR USE BY ONE OR MORE HEALTH PROFESSIONS SCHOOLS.

CHECK (1) BOX a. or b. AND ENTER THE YEAR:

 ESTIMATES ON THIS PAGE ARE BASED
 ON A DEVELOPMENT OR MASTER PLAN
 EXTENDING THROUGH CALENDAR YEAR _____

 b. ☐ THE ESTIMATES ON THIS PAGE ARE BASED
 ON A DEVELOPMENT OR MASTER PLAN WHICH
 IS IN PROCESS OF BEING FORMULATED
 EXTENDING THROUGH CALENDAR YEAR _____

 ED NEW CONSTRUCTION

| |
|--|
| |
|--|

 OR REMODELING

| |
|--|
| |
|--|

NEW CONSTRUCTION" (ITEM 1) AS TO ITS PURPOSE:

 FOR EXPANDING ENROLLMENT

| |
|--|
| |
|--|

 FOR RELIEF OF OVERCROWDING.....

| |
|--|
| |
|--|

 TO REPLACE OBSOLETE FACILITIES

| |
|--|
| |
|--|

 FOR OTHER PURPOSES.....

| |
|--|
| |
|--|

 F JOINT-USE FACILITIES ANTICIPATED TO BE AVAILABLE
 OF PROFESSIONS SCHOOLS IN 1983.....

| |
|--|
| |
|--|

IMPAC CODE _____

UNIVERSITY OWNED HOSPITAL(S) AND CLINIC(S)

CHECK (✓) THE HEALTH PROFESSIONS SCHOOLS USING THIS HOSPITAL OR CLINIC

| | | |
|---------------------------------------|--|---|
| a. <input type="checkbox"/> DENTISTRY | d. <input type="checkbox"/> OSTEOPATHY | g. <input type="checkbox"/> PUBLIC HEALTH |
| b. <input type="checkbox"/> MEDICINE | e. <input type="checkbox"/> PHARMACY | h. <input type="checkbox"/> VETERINARY MEDICINE |
| c. <input type="checkbox"/> OPTOMETRY | f. <input type="checkbox"/> PODIATRY | i. <input type="checkbox"/> COMBINATION SCHOOL |

NOTE: IF ONLY ONE OF THE ABOVE BOXES WAS CHECKED, DO NOT COMPLETE THIS PAGE.

SECTION A

| | | |
|----|---|---------|
| 1. | NAME OF HOSPITAL OR CLINIC | ADDRESS |
| 2. | TYPE OF HOSPITAL <input type="checkbox"/> GENERAL <input type="checkbox"/> SPECIAL (Specify) <input type="checkbox"/> OTHER (Specify) (Check (✓) All Applicable Boxes) () () | |
| 3. | LOCALE (Check (✓) One) <input type="checkbox"/> INNER CITY <input type="checkbox"/> OUTER CITY <input type="checkbox"/> SUBURBAN <input type="checkbox"/> RURAL | |

4. TOTAL GSF (Gross Square Feet)

5. GSF CONSTRUCTED WITH HPEA ASSISTANCE

6. NSF (Net Square Feet) REMODELED WITH HPEA ASSISTANCE

INPATIENT FACILITIES:

7. BEDS USED FOR STUDENT INSTRUCTION.....

| NUMBER | AVERAGE DAILY PATIENT LOAD (ADPL) |
|----------|-----------------------------------|
| a. _____ | b. _____ |

AMBULATORY FACILITIES:

8. EXAMINING AND TREATMENT ROOMS USED FOR STUDENT INSTRUCTION.....

| NUMBER OF ROOMS | TOTAL PATIENT STATIONS |
|-----------------|------------------------|
| a. _____ | b. _____ |

9. NUMBER OF OUTPATIENT VISITS PER YEAR APPLIED TO STUDENT INSTRUCTION

NON PATIENT-CARE FACILITIES AVAILABLE FOR ACADEMIC PURPOSES

| | A | B | C | D | E | F | G | H | I | J |
|--|---|---|---|---|---|---|---|---|---|---|
| 10. NASF (Net Assignable Square Feet) | | | | | | | | | | |
| 11. CHECK (✓) EACH TYPE OF SPACE CONSTR'D. OR REMODELED WITH HPEA ASSISTANCE | | | | | | | | | | |
| 12. NUMBER OF ROOMS ON LINE 10 | | | | | | | | | | |

FACILITIES CURRENTLY NEEDED

| | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|
| 13. ADDITIONAL NASF CURRENTLY NEEDED TO ACCOMMODATE PRESENT ENROLLMENT | | | | | | | | | | |
| 14. FOR EACH TYPE OF SPACE NEEDED, USE LETTER CODE TO INDICATE THE REASON | | | | | | | | | | |
| 15. WHAT PORTION (in NASF) of EACH ENTRY IN ITEM 13 IS ATTRIBUTABLE to OVERCROWDING | | | | | | | | | | |

| SATISFACTORY FOR PROGRAM PURPOSE | IN NEED OF REMODELING | IN NEED OF REPLACEMENT |
|----------------------------------|-----------------------|------------------------|
| a. _____ | b. _____ | c. _____ |

16. APPORTION NASF OF LINE 10, COLUMN A BY CONDITION

CONTINUED ON BACK OF PAGE

500

A-100

SECTION B

ONGOING AND FULLY AUTHORIZED CONSTRUCTION AND REMODELING

☐ IF RESPONDENT HAS NO CONSTRUCTION OR REMODELING TO REPORT, CHECK (✓) THE BOX TO THE LEFT AND PROCEED TO SEC. C.

① OVERVIEW

- a. OWNED SPACE BEING (OR TO BE) REMODELED.....
- b. OWNED NEW CONSTRUCTION.....

| 1 | 2 | 3 | 4 |
|---------------------|-----|-----|------------------------|
| COST (Thousands) | GSF | NSF | NSF of HPEA ASSIST. |
| \$ | | | |
| \$ | | | |

② PATIENT CARE FACILITIES BEING ADDED

- a. NUMBER OF ADDITIONAL BEDS TO BECOME AVAILABLE FOR STUDENT USE.....
- b. NUMBER OF PATIENT STATIONS
IN ADDITIONAL EXAMINING AND TREATMENT ROOMS TO BE USED BY STUDENTS

| |
|--|
| |
| |

③ APPORTION GSF OF OWNED NEW CONSTRUCTION (ITEM 1b, Column 2) AS TO PURPOSE

- a. EXPANDING ENROLLMENT b. RELIEF OF OVERCROWDING c. REPLACING OBSOLETE SPACE d. OTHER PURPOSES

4. CONSTRUCTION AND REMODELING COSTS AND SOURCES OF FUNDS

- a. SUM OF COSTS REPORTED IN ITEMS 1a and 1b ABOVE.....
- b. HOW MUCH OF THE TOTAL REPORTED IN ITEM 4a. IS FROM:

| | | | | | |
|---------------------------------|----|------------------------------------|----|------------------------------|----|
| (1) INSTITUTION'S PRIVATE FUNDS | \$ | (4) FOUNDATIONS AND PHILANTHROPIES | \$ | (7) CHMTA INTEREST SUBSIDIES | \$ |
| (2) INSTITUTION'S BORROWING | \$ | (5) HPEA CONSTRUCTION GRANTS | \$ | (8) OTHER FEDERAL SOURCES | \$ |
| (3) STATE OR LOCAL FUNDS | \$ | (6) CHMTA LOAN GUARANTEES | \$ | (9) OTHER | \$ |

HPEA AID; REVISED INVENTORY; AND POST-CONSTRUCTION NEEDS:

| | A | B | C | D | E | F | G | H | I | J |
|--|---|---|---|---|---|---|---|---|---|---|
| 5. CHECK (✓) EACH TYPE OF SPACE CONSTRUCTED OR REMODELED WITH HPEA ASSISTANCE | | | | | | | | | | |
| 6. REVISED INVENTORY OF NASF AVAILABLE FOR RESPONDENT'S USE AFTER CONSTRUCTION AND REMODELING ARE COMPLETE | | | | | | | | | | |
| 7. NASF STILL NEEDED AFTER COMPLETION OF REPORTED CONSTRUCTION AND REMODELING | | | | | | | | | | |
| 8. FOR EACH TYPE OF SPACE NEEDED, USE LETTER CODE TO INDICATE THE REASON | | | | | | | | | | |

9. INDICATE THE CALENDAR YEAR ALL ONGOING AND FULLY AUTHORIZED CONSTRUCTION AND REMODELING ARE EXPECTED TO BE COMPLETED

SECTION C

FUTURE CONSTRUCTION AND MAJOR REMODELING PLANNED FOR COMPLETION BY 1983
(OVER AND ABOVE ONGOING CONSTRUCTION AND REMODELING REPORTED IN SECTION B)

① OVERVIEW

- a. NSF TO BE REMODELED
- b. GSF OF NEW CONSTRUCTION
- c. TOTAL NASF ANTICIPATED TO BE AVAILABLE FOR JOINT-USE BY 1983

② APPORTION "GSF OF NEW CONSTRUCTION" (ITEM C.1.b.) AS TO ITS PURPOSE:

- a. GSF FOR EXPANDING ENROLLMENT
- b. GSF FOR RELIEF OF OVERCROWDING
- c. GSF TO REPLACE OBSOLETE FACILITIES
- d. GSF FOR OTHER PURPOSES

PAGE 6

IMPAC CODE _____

[illegible]

502



ERIC
Full Text Provided by ERIC

APPENDIX D

Health Professions School Associations, Federal Agencies, and Other Parties Contacted Regarding Instrument Design

1. American Association of Dental Schools
2. Council on Dental Education, American Dental Association
3. Association of American Medical Colleges
4. Council on Medical Education, American Medical Association
5. Association of Schools and Colleges of Optometry
6. American Association of Colleges of Osteopathic Medicine
7. American Osteopathic Association
8. American Association of Colleges of Pharmacy
9. American Association of Colleges of Podiatric Medicine
10. Association of Schools of Public Health, Inc.
11. Association of American Veterinary Medical Colleges
12. Council of Teaching Hospitals, Association of American Medical Colleges
13. Federation of Associations of Schools of the Health Professions
14. Various Higher Education State Commissions
15. American Council on Education
16. Western Interstate Commission for Higher Education (National Center for Higher Education Management Systems)

APPENDIX E
PRETEST MEETING GOALS

For each respondent, the pretest interview attempts to provide information of several general types:

Mechanics of Response

- a) What was the magnitude of the work with respect to the level of personnel involvement and the time demanded?
- b) How were the data gathered and from what sources?
- c) Is the overall design of the questionnaire and accompanying documentation difficult to use or understand (e.g., frequent cross-referencing among questionnaire, instructions, definitions)?

Shortcomings

- a) Does the survey fail to address any major aspects of facilities availability or usage with respect to health profession schools in general, schools of this particular type (e.g., dentistry), this particular school, or differences between schools.

Content

- a) The "face validity" of the survey will be addressed. Has the questionnaire been designed and worded in such a way that the respondent can clearly sense purpose, utility and importance, thus developing an atmosphere of credibility, and encouraging interest and meaningful participation? Or does it contain ambiguities, insufficient or extraneous instructions or questions which detract from the face validity?

- b) Has the respondent properly understood and interpreted the questions and instructions or have inaccurate responses resulted from poorly designed questions.
- c) Specific questions concerning the respondents' actual data will be determined from pre-interview (when possible) analysis of the completed form. These questions will usually involve obvious or apparent violations or misinterpretations of instructions (i.e., how can the instructions be clarified, expanded, etc.?).

The following pages present a specific list of suspected areas of probable difficulties in understanding or interpretation which will be discussed with each respondent.

Page 2A, 2B

- a) How were type of NASF accumulated (room-by-room synthesis, etc.)?
- b) In what form is the data from which such figures were derived?
- c) Are the "conditions of space" mutually exclusive?
- d) Was "portion of space. . ." (item 3) interpreted correctly?
- e) How were student station data and "number of rooms" data obtained?
- f) What are "other" rooms? (i.e., are we missing some important type of space?)

Page 3

- a) Discuss "room hours used per year" question. Can instructions be improved or is there some better way (e.g., No. of students x avg. No. of contact hours)?
- b) How was "number of students" data (items 4-7) obtained?

Page 5

- a) How is square footage construction and remodeling data obtained?
- b) How was the estimated inventory (items 5-8) obtained and were any of these questions unreasonable?
- c) What rationales were behind the breakdown provided in questions 9-12?
- d) Is the source of funds information available at the individual school level?

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Page 6A

- a) How was data concerning patient stations and visits available to respondents' students segregated from the aggregate hospital/clinic total?
- b) How many beds do they think is necessary?

Page 7

Same questions as on page 5.

Page 8

- a) Interpretation of item B (e.g., anything in hospital setting is clinical).
- b) How were animal facilities apportioned?
- c) Should diagnostic animal rooms be included?

Page 9

- a) Were instructions for columns B, D, and F followed properly?

Page 10A-B

- a) How was data in items 1-7 obtained?
- b) What was the basis for these estimates?
- c) How accurate will they probably be?

Page 11

- a) How was this data estimated?

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Page 12

Same questions as pages 5 and 7.

Page 13

- a) Interpretation of support staff.

Parent Form

- a) Has definition of "allocated" been properly interpreted?
- b) Can the parent provide all the joint-use data - including that offered by the college of Biological Sciences?
- c) Can sources of funds be reported separately from those of HP funds?

APPENDIX F
FACILITIES SURVEY NONRESPONSE QUESTIONS
NONCLINICAL*

○ SCHOOL CODE (EXCLUDE "H" OR "P")

○ TYPE OF SCHOOL

○ NUMBER OF STUDENTS (H-P GRAD + H-P UNDERGRAD)

GSF CONTROLLED (ALLOCATED) EXCLUDING FREESTANDING* HOSPITALS

% SATISFACTORY* GSF

% OF GSF WHICH WAS HPEA/CHMTA FUNDED

○ ONGOING CONSTRUCTION* OF SPACE TO BE CONTROLLED: ☐ YES=1 ☐ NO=2

TOTAL COST (\$)

HPEA/CHMTA FUNDS (\$)

GSF BEING BUILT

NSF BEING REMODELED

GSF NEEDED (AFTER COMPLETION OF CONSTRUCTION, IF ANY)

* BUT INCLUDE CLINICAL FACILITIES LOCATED IN INSTRUCTIONAL BUILDINGS

(STRUCTURALLY) FREESTANDING HOSPITALS/CLINICS

GSF AVAILABLE FOR USE FOR STUDENT INSTRUCTION

% GSF SATISFACTORY

% OF GSF WHICH WAS HPEA/CHMTA FUNDED

○ ONGOING CONSTRUCTION OF CLINICAL FACILITIES ☐ YES=1 ☐ NO=2

TOTAL COST (\$)

HPEA/CHMTA FUNDS (\$)

GSF BEING BUILT

NSF BEING REMODELED

GSF NEEDED (AFTER COMPLETION OF CONSTRUCTION, IF ANY)

CAREFULLY REVIEW DEFINITIONS PRIOR TO CAMPAIGN

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APPENDIX G
THE CONCEPTS UNDERLYING THE COMPUTATIONAL METHODS FOR
ASSESSING ROOM AND STATION UTILIZATION

The obvious sensitivity of facilities utilization data warrants a detailed discussion of the manner in which this assessment is made in the report.

There are a variety of methods for gaining insight into the degree to which educational facilities are being utilized. Measures range from simple ratios of net assignable square footage per student and per student station, to complex computations of room and student station occupancy. The former (ratio-type utilization measures) are easily computed, ordinarily self-explanatory, and provide information on the resources available per student as well as giving some indication on a relative basis, of the effectiveness of space usage. However, the ratios lack an important dimension in that they cannot, in the absolute, indicate the extent to which a school's resources are being utilized by the students. Inability to determine this portion implies inability to draw conclusions regarding the match between current (or projected) enrollment levels and the availability of educational resources for accommodating such levels.

Room and student station utilization (occupancy) are more absolute measures than ratios, since they attempt to establish the "portion of available resources used" rather than "portion of resources available per unit of educational activity". Use of the term "absolute" should not be construed to mean that we attempt to apply utilization figures in an evaluative sense: rather, it implies that room and station occupancy assessment allow the establishment of the theoretical upper limit upon the amount of educational activity which could take place in a given type of space, assuming that there were no other constraints upon such activity. Such constraints might be the availability of trained faculty and equipment, the ability to schedule class meetings optimally, and the existence of adequate physical facilities of other types. Since these constraints will always exist, it is not possible to determine whether a particular utilization figure is good or bad without complete knowledge of the context in which it is found. Nevertheless, the establishment

of even theoretical limits--and the resulting ability to compare schools and professions as to the respective portions of their facilities being utilized--makes such figures valuable. The derivations of these two measures are detailed below.

1. Room Utilization

As stated above, an absolute utilization measure is based on the concept of "portion of available resources utilized". For room utilization, the unit of measurement of the available (or utilized) resource is taken to be the "room hour", where "one available room hour" means that a room is available for educational purposes for a period of one hour. One room hour utilized means that at least one student, involved in an academic activity, occupied a room for one hour. (For completeness, it should be noted that the choice of one hour as a base measurement is a convenience rather than a requirement of the method.) Room availability over a specified time period, is the product of the number of rooms and the number of hours that the rooms are available for academic purposes. Room use during the same time period is the total number of hours during which the rooms were occupied by students engaged in academic pursuits. The ratio of these two figures (the "room hours used" in the numerator and "room hours available" in the denominator) represents the percent of room utilization. In the general case, one in which a number of rooms are available for differing numbers of hours per unit time, the room utilization figure would be computed by evaluating the following fraction:

- (1) the numerator would be the sum, over all rooms of a given type (e.g., classrooms), of the number of hours each was occupied during a given period such as a year;
- (2) the denominator would be the sum, over all rooms of a given type, of the number of hours each was available during the same period as used in developing the numerator.

Classrooms and class laboratories were the only room types studied to determine the percentage of room utilization. The actual figures reported were obtained

as follows, in which we show the approach for determining classroom utilization:

(a) Resources used--the "numerator".

From page 6, item D of the survey instrument (HPSQ) we obtain the total number of room hours utilized by respondents' students in respondents' controlled (allocated) facilities (see line 6, column B). Since it is our intent to assess the total loading on this space, we must add to this numerator the loading of respondents' controlled facilities engendered by students other than those of respondent. The latter information is found on page 3 of the instrument, column C, from which we take the total hours used over all rooms (line 3).

(b) Resources available--the "denominator".

Using 2,080 hours as an estimate of "length of academic year" (52 weeks x 40 hours), we multiply 2,080 by the number of classrooms controlled by respondent (page 6, item D, column A, line 6). Although it was originally intended to use data from page 7A to compute the length of the academic year (number of weeks per year times number of hours per week), it was felt that 2,080 hours would more accurately reflect and support contrast and comparison among schools, and would better reflect the total availability of the space.

Example:

School A has 10 classrooms under its day-to-day control, 5 of 1-16 stations and 5 of 17-32 stations. The smaller rooms are each used 800 hours per year; while the larger ones are used 600 hours per year. One of the rooms is used 400 hours per year by students of another school.

$$U\% = ((5 \times 800 + 5 \times 600 + 400)/(2,080 \times 10)) \times 100\% = 35.6\%$$

2. Student Station Utilization (Occupancy)

A more complex indicator of space resources utilization is student station utilization. Student station utilization as defined in this report, is the percentage of time (and intensity to which) classroom and class laboratory "student stations" are occupied by students for academic purposes. The unit of measurement of the resource is the "station-hour" (one student work station available for one hour). Thus, if a classroom with thirty desks is occupied by twenty students for a given hour of the day, we say that for that hour, the station utilization of that room was about sixty-seven percent (20/30).

For an individual institution, it is often useful to ascertain student station utilization on a room-by-room basis for each day of the week. In this case, the period of time would be (say) 8 hours; and the utilization percentage associated with each room would be obtained by finding the weighted number of stations occupied during that period. Thus, if the number of students in our thirty-station classroom were observed to be 20, 20, 20, 20, 10, 10, 10, 10 during the day's eight successive hours, the day's utilization percentage would be computed as:

$$\frac{20 + 20 + 20 + 20 + 10 + 10 + 10 + 10}{30 + 30 + 30 + 30 + 30 + 30 + 30 + 30} = 120/240 = 50\%$$

Similar figures developed for each room-type would give valuable insight into the problems and potentialities associated with class scheduling, the relief of overcrowding, and the ability to vary institutional enrollment.

As our level of aggregation becomes higher (if we, for example, were to compute a single number representing utilization of all rooms of a given type over a year's time), the operational value of the information would be smaller. However, it would be a better, albeit global, measure of the overall degree to which an institution's available educational resources are being "tapped". As a national survey, our efforts were, to be practical, confined to more global measures. Moreover, we concentrated upon only two room-types ("classroom-type instructional space" and "class laboratories") since at our current state of

educational technology, these kinds of rooms still represent the foundations of the facilities-associated educational process. Thus, the figures produced for the purposes of our reports are averages of averages--even for the individual school. For example, our classroom station utilization figures are, conceptually, the equivalent of those which would be obtained were the number of students in each classroom to be counted each hour of each day in the year, and the resulting tally divided by the sum of the hourly sums of the available stations in all rooms.

Having conceptualized the definition of the basic resource related to student station utilization, its unit of measurement, and the manner in which the resource is expended (viz., a student works at an available station for some period of time), we are confronted with the problem of measuring its availability and use through answers to a mail survey. Respondents could not be expected to obtain room-by-room, hour-by-hour headcounts of students in each classroom and class laboratory over a year's time for our survey purposes. We thus developed an approach which would give a reliable approximation to the "true" utilization proportion, would not require extensive institutional research, and would likely result in unbiased estimates.

In general, the number of available student stations in a given institution does not change from hour to hour or from day to day. Thus, the available resource--some number of student stations available for some time period--may be determined by simply counting the number of student stations and multiplying this result by the number of hours that they are available. (The assumption here is that each station is available for the same number of hours--2,080 as in the case of room utilization.) For classroom student station utilization, from pages 2A and 2B of the questionnaire we add the two figures for "number of student stations" (see lines 6 and 4 on the respective pages' column B). By multiplying the number of stations by the assumed number of available hours per year (2,080), we obtain our initial estimate of the total station-hour resources available. The amount of this resource that is used is obtained by computing the cross-product of (1) FTE enrollment by level and (2) classroom hours per student by level. On page 7A, we request (for classrooms in column A) the "number of hours spent by a typical full-time student" at each level

(of academic attainment). On page 10 (column B) we have a by-level breakdown (lines 2-8) of the number of full-time equivalent students enrolled. If we multiply the number of first year FTE's by the number of hours spent in the classroom by a typical full-time, first year student, we find the number of student contact hours spent by first-year students in the classroom. Under the straightforward assumption of one student to a student station, this value represents the number of station hours used (per year) by said students. Performing a like computation for the second year students and for each succeeding level--and summing the results--yields the total station-hour resources used by the health professional undergraduates and graduates (exclusive of interns and residents). The ratio of the latter value to the computed "resources available" is considered the "uncorrected" station utilization of a given institution (or profession, through extension of the logic to all schools in a given profession).

The term "uncorrected" is used above since a large number of the schools in the survey universe include educational programs for such allied academic pursuits as the health technologies, and the like; and many offer educational resources in the spheres of continuing education, graduate and post graduate studies, internships, residencies, and so on. These "other" students impose a loading upon each school's facilities for which we must account. Moreover, the "hours per typical student" data on page 7A includes time spent by respondent's students in joint-use facilities. As such, this time does not represent a loading on respondent's controlled space, but upon the space of others.

The method for collecting the data for computing the "correction factor" was designed into the HPSQ on page 3. Columns C and D of section A are used to determine the number of station-hours used by students of other health profession schools. Pursuing our classroom utilization derivation, line 2, column C (on page 3 section A) divided by line 1 column C gives the average stations per room in rooms used by other than "respondents' students". Multiplying this figure by that reported in line 3 (total number of hours per year over all rooms) gives the number of station hours used by these other students. Since it represents an additional loading on the resources available, it is added to the numerator of the utilization ratio. Obviously, increasing the numerator increases the school's utilization percentage.

On the other hand, for the occasions in which a given school uses the facilities of another school, or of some central administrative organization, the "available base" of resources must be augmented appropriately. This second correction factor is obtained from column A of page 3 in the same manner as the "other" students' loading" correction factor, and is added to the denominator of the utilization ratio.

Example: Student station utilization in classrooms.

School B controls 5 classrooms with 10, 10, 20, 20, and 40 stations, respectively, for a total of 100 student stations. The three large classrooms are used a total of 600 hours per year by School C. School B also utilizes a 60 station classroom (controlled by School D) 400 hours per year. School B has 200 FTE undergraduate students and no graduate students. The FTE enrollment, by level (first year, second year, etc.) is 60, 50, 50, 40. The typical student at each of the 4 levels spends 800, 800, 200, and 200 hours, respectively, in the classroom.

The total available resource (the denominator of the utilization ratio) is given by:

$$100 \text{ stations} \times 2,080 \text{ hours} + 60 \text{ stations} \times 400 \text{ hours} = 232,000 \text{ station hours}$$

The resources utilized (the numerator of the ratio) are found as follows:

a) Respondents' student loading:

$$60 \text{ students} \times 800 \text{ station-hours per student} + 50 \text{ students} \times 800 \text{ station-hours per student} + 50 \text{ students} \times 200 \text{ station hours per student} + 40 \text{ students} \times 200 \text{ station-hours per student} = 106,000 \text{ station hours.}$$

b) Loading engendered by other schools' students:

$(20 + 20 + 40)/3 = 26\frac{2}{3}$ stations per room (average) used by other students.

$600/3 = 200$ room-hours per room (average) used by other students.

$3 \text{ rooms} \times 26\frac{2}{3} \times 200 = 16,000$ station-hours used by other students.

$106,000 + 16,000 = 122,000$ station-hours utilized.

Utilization ratio = $(122,000/232,000) \times 100\% = 52.6\%$

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APPENDIX H
PRETEST INSTITUTIONS
HEALTH PROFESSIONS SCHOOLS

1. Pennsylvania College of Optometry
2. University of Kentucky College of Dentistry
3. Southern School of Pharmacy, Mercer University
4. University of North Carolina School of Medicine
5. Iowa State University College of Veterinary Medicine
6. University of Minnesota Medical School
7. University of Oregon Dental School
8. Baylor College of Dentistry
9. Tufts University Medical School

PARENT INSTITUTIONS

1. University of Kentucky
2. University of North Carolina
3. University of Minnesota

APPENDIX I

Method of Apportioning Multiply-Used Hospitals and Clinics

For cases in which two or more respondents reported using a hospital such that it was not possible to apportion the space, construction dollars, etc. among their respective schools, the following approach was taken.

If:

D_i = the total yearly student contact hours spent by all respondent schools' students in hospital "i";
and

A_{in} = the yearly student contact hours spent by the n^{th} school's students in hospital "i" (such that $D_i = \sum A_{in}$); then

$$P_{in} = A_{in}/D_i$$

where P_{in} = a factor between 0 and 1 representing the n^{th} school's computed portion of any variable of concern in hospital "i" (e.g., construction costs, available space, space to be constructed by 1983).

Since D_i is defined in terms of A_{in} , we need only show how our estimates of A_{in} (student-hour loading of school n on hospital i) were obtained.

Let:

G_{nk} = the reported value of column G, page 7A, line k , ($k=1,2,\dots,7$) (the hours spent in inpatient areas by the " k^{th} " level students of school n)

H_{mk} = the reported value of column H, page 7A, line k , ($k=1,2,\dots,7$) (hours spent in examining and treatment rooms by the " k^{th} " level students of school n)

$U_{l,i}^{(n)}$ = number of school n 's undergraduate students using hospital i 's inpatient facilities "at any one time" (page 5A, item 8.a)

$G_{l,i}^{(n)}$ = number of school n 's graduate students using hospital i 's inpatient facilities "at any one time" (page 5A, item 8.b)

APPENDIX I (Continued)

$U_{2,i}^{(n)}$ = number of school n's undergraduate students using hospital i's examining and treatment rooms "at any one time" (page 5A, item 11.a)

$G_{2,i}^{(n)}$ = number of school n's graduate students using hospital i's examining and treatment rooms "at any one time" (page 5A, item 11.b)

EF_{nk} = reported value of the sum of columns E and F, page 7A, line k, ($k=1,2,\dots,7$) (hours spent in classrooms and labs by the " k^{th} " level students of school n)

$B_{n(k+1)}$ = the reported value of column B, page 10, line k ($k=1,2,\dots,7$) (number of current full-time equivalent students at the " k^{th} " level of academic attainment at school n)

Then:

$$A_{in} = \left\{ \begin{aligned} & \left[\frac{U_{1,i}^{(n)}}{\sum_i U_{1,i}^{(n)}} \right] \left[\sum_{k=1}^6 (B_{n(k+1)} G_{nk}) \right] \\ & + \left[\frac{U_{2,i}^{(n)}}{\sum_i U_{2,i}^{(n)}} \right] \left[\sum_{k=1}^6 (B_{n(k+1)} H_{nk}) \right] \\ & + \left[\frac{(U_{1,i}^{(n)} + U_{2,i}^{(n)})}{(\sum_i U_{1,i}^{(n)} + \sum_i U_{2,i}^{(n)})} \right] \left[\sum_{k=1}^6 (B_{n(k+1)} EF_{nk}) \right] \\ & + \left[\frac{G_{1,i}^{(n)}}{\sum_i G_{1,i}^{(n)}} \right] \left[B_{n(8)} G_{n8} \right] \\ & + \left[\frac{G_{2,i}^{(n)}}{\sum_i G_{2,i}^{(n)}} \right] \left[B_{n(8)} H_{n8} \right] \\ & + \left[\frac{(G_{1,i}^{(n)} + G_{2,i}^{(n)})}{(\sum_i G_{1,i}^{(n)} + \sum_i G_{2,i}^{(n)})} \right] \left[B_{n(8)} EF_{n8} \right] \end{aligned} \right\}$$

In words, the first of the 6 terms is the product of (1) the fraction of respondent n's undergraduate students located in hospital i's inpatient facilities as opposed to other hospitals' inpatient facilities and (2) the total student contact hours spent in inpatient areas by school n's undergraduates. Thus, if school n uses 2 hospitals such that, typically, any 40

APPENDIX I (Continued)

of its 100 undergraduates can be found in hospital 1's inpatient areas; and if the 100 undergraduates each spend an average of 1,500 hours in inpatient areas, then of the $(100 \times 1,500 =) 150,000$ contact hours to be spent in a hospital, $(40/100 =) 40\%$ of them (i.e., 60,000 contact hours) of loading will fall upon hospital 1. For school "n", terms 2 through 6 represent the following loadings (in contact hours) on hospital i:

- Term 2 = the loading (by undergraduates) on ambulatory facilities;
- Term 3 = the loading (by undergraduates) on classrooms and class laboratories;
- Term 4 = the loading on inpatient areas by graduate students;
- Term 5 = the loading on ambulatory facilities by graduate students; and
- Term 6 = the loading on classrooms and class laboratories by graduate students.

Having now calculated A_{in} -- the contact hour loading engendered by school n on hospital i, we repeat the computation for each school which reported hospital i. Summing the A_{in} over all values of n (i.e., over all schools using the hospital), we obtain D_i , the total contact hour loading on hospital i.

For school n, we now take the ratio $A_{in}/D_i = P_{in}$ which, as defined, takes values between 0 and 1. Obviously, for a single value of i (for a given hospital) $\sum P_{in} = 1$. Since P_{in} represents the portion of hospital i's facilities to be considered available for school n's use, the next step is to multiply all relevant variables (on page 5A, sections A, B, and C) by P_{in} and assign the results to school n for reporting purposes. In the procedure actually followed, all variables were apportioned except for the (total) Gross Square Footage of the hospital, its number of beds and examining and treatment rooms, and its yearly number of outpatient visits.

APPENDIX J
SELECTED DATA FROM INDIVIDUAL SCHOOLS

A. ORGANIZATION OF THE TABLES

The following pages contain a sampling of the actual information gathered from each respondent. The fifty-six tables are organized into seven major sets with each major set representing a topical area (e.g., "The 1983 Look-Ahead") which is repeated for each of the eight professions surveyed. As will be seen, all columns in these tables are numbered. At the end of each of the seven major sets, the footnotes relating to particular columns have been numbered in a corresponding manner.

B. INTERPRETING A TABLE

The topical area covered by a table is given by the centered title at the top of the page. The profession to which the table applies is printed at the upper left. Following the column headings, the next five lines in the table give overall statistics, for the profession involved, on each measure defined in a column heading. Thus:

TOTAL is either the arithmetic sum or the population value of the measure specified by a given column heading.

NUMBER OF SCHOOLS is the number for whom we could validly compute the measure specified.

MEAN is the average value of the measure specified (i.e., the sum of the computed values divided by the number of schools).

HIGH is the highest observed value of the measure.

LOW is the lowest observed value of the measure.

To preserve confidentiality of individual responses, each school has been assigned a three-digit code. These codes are listed at the extreme left of the body of each printed table. Information for an individual school is obtained by reading across that school's row of the table.

At the bottom of each table, and for each column therein, there may appear a vertical list of three-digit numbers. The latter are the codes of schools for which the column measure could not validly be computed.

TABLE J.1

CONTROLLED NONCLINICAL INSTRUCTION FACILITIES --FALL, 1973

DENTISTRY

| | OWNED AND CONTROLLED GROSS SQUARE FOOTAGE (000) (1) | CONTROLLED NASF (000) IN TOTAL (2) | CONTROLLED NASF EXCL. "ON-SITE PATIENT CARE" AND "OTHER" (3) | PERCENT OF NASF CONSIDERED SATIS- FACTORY (4) | PERCENT OF NASF NEEDING REMODELING (5) | PERCENT OF NASF NEEDING REPLACE- MENT (6) | NASF (000) NEEDED (POST- CONSTRU- TION) (7) |
|----------------------------|---|---|--|--|--|--|--|
| TOTAL NUMBER OF SCHOOLS | 6717 | 4359 | 2446 | 82 | 10 | 7 | 988 |
| MEAN | 53 | 53 | 53 | 51 | 51 | 51 | 53 |
| HIGH | 127 | 82 | 46 | 76 | 10 | 10 | 19 |
| LOW | 353 | 219 | 141 | 100 | 75 | 100 | 130 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 081 | 101 | 67 | 44 | 27 | 73 | 0 | 0 |
| 085 | 78 | 68 | 23 | 100 | 0 | 0 | 80 |
| 102 | 240 | 134 | 57 | 84 | 13 | 2 | 14 |
| 124 | 212 | 126 | 76 | 88 | 10 | 2 | 3 |
| 132 | 106 | 66 | 31 | 58 | 0 | 42 | 33 |
| 135 | 0 | 68 | 67 | 21 | 75 | 4 | 27 |
| 192 | 80 | 53 | 42 | 77 | 23 | 0 | 0 |
| 193 | 106 | 68 | 39 | 12 | 0 | 88 | 0 |
| 231 | 57 | 33 | 21 | 67 | 33 | 0 | 38 |
| 242 | 204 | 124 | 69 | 77 | 23 | 0 | 0 |
| 244 | 147 | 111 | 84 | 100 | 0 | 0 | 0 |
| 305 | 246 | 188 | 98 | 90 | 0 | 10 | 94 |
| 314 | 279 | 173 | 80 | 100 | 0 | 0 | 0 |
| 335 | 0 | 14 | 8 | 100 | 0 | 0 | 0 |
| 352 | 227 | 116 | 58 | 79 | 21 | 0 | 0 |
| 361 | 162 | 89 | 49 | 99 | 0 | 1 | 0 |
| 383 | 211 | 124 | 67 | 100 | 0 | 0 | 0 |
| 423 | 60 | 47 | 28 | 87 | 0 | 0 | 41 |
| 445 | 166 | 100 | 58 | 86 | 14 | 0 | 54 |
| 462 | 194 | 123 | 48 | 98 | 0 | 0 | 17 |
| 471 | 212 | 98 | 56 | 82 | 18 | 0 | 15 |
| 473 | 39 | 27 | 13 | 81 | 0 | 19 | 0 |
| 474 | 53 | 32 | 24 | 100 | 0 | 0 | 0 |
| 491 | 186 | 118 | 64 | 70 | 25 | 5 | 0 |
| 513 | 107 | 60 | 32 | 92 | 8 | 0 | 14 |
| 552 | 79 | 51 | 29 | 84 | 8 | 8 | 18 |
| 564 | 118 | 92 | 56 | 58 | 41 | 1 | 9 |
| 565 | 50 | 37 | 12 | 100 | 0 | 0 | 24 |
| 591 | 5 | 8 | 8 | 50 | 0 | 50 | 0 |
| 592 | 183 | 100 | 52 | 100 | 0 | 0 | 12 |
| 603 | 0 | 77 | 32 | 100 | 0 | 0 | 0 |
| 605 | 85 | 93 | 42 | 80 | 14 | 8 | 47 |
| 633 | 171 | 96 | 50 | 90 | 10 | 0 | 0 |
| 641 | 87 | 67 | 67 | 100 | 0 | 0 | 0 |
| 642 | 353 | 203 | 87 | 100 | 0 | 0 | 0 |
| 701 | 171 | 100 | 50 | 100 | 0 | 0 | 34 |
| 704 | 124 | 64 | 37 | 66 | 33 | 3 | 0 |
| 715 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 733 | 43 | 38 | 22 | 0 | 0 | 0 | 0 |
| 751 | 110 | 63 | 26 | 37 | 56 | 8 | 54 |
| 764 | 215 | 129 | 88 | 82 | 6 | 12 | 25 |
| 792 | 324 | 219 | 141 | 100 | 0 | 0 | 0 |
| 804 | 212 | 122 | 73 | 100 | 0 | 0 | 56 |
| 821 | 0 | 25 | 11 | 56 | 0 | 44 | 0 |

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TABLE J.1 (Continued)

CONTROLLED NONCLINICAL INSTRUCTION FACILITIES --FALL, 1973

DENTISTRY

(CONTINUED)

| | OWNED AND CONTROLLED GROSS SQUARE FOOTAGE (000) (1) | CONTROLLED NASF (000) IN TOTAL (2) | CONTROLLED NASF EXCL. "ON-SITE PATIENT CARE" AND "OTHER" (3) | PERCENT OF NASF CONSIDERED SATIS- FACTORY (4) | PERCENT OF NASF NEEDING REMODELING (5) | PERCENT OF NASF NEEDING REPLACE- MENT (6) | NASF (000) NEEDED (POST- CONSTRUC- TION) (7) |
|---|---|---|--|--|--|--|---|
| 832 | 0 | 24 | 14 | 100 | 0 | 0 | 0 |
| 853 | 198 | 96 | 62 | 0 | 25 | 75 | 100 |
| 854 | 82 | 64 | 39 | 100 | 0 | 0 | 3 |
| 862 | 97 | 46 | 26 | 0 | 0 | 100 | 0 |
| 911 | 170 | 74 | 42 | 100 | 0 | 0 | 0 |
| 913 | 79 | 67 | 37 | 100 | 0 | 0 | 130 |
| 941 | 238 | 114 | 79 | 100 | 0 | 0 | 0 |
| 942 | 0 | 0 | 0 | 100 | 0 | 0 | 46 |
| 944 | 70 | 63 | 28 | 100 | 0 | 0 | 0 |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | | | | 715 942 | 715 942 | 715 942 | |

TABLE J.2

CONTROLLED NONCLINICAL INSTRUCTION FACILITIES --FALL, 1973

MEDICINE

| | OWNED AND CONTROLLED GROSS SQUARE FOOTAGE (000) (1) | CONTROLLED NASF (000) IN TOTAL (2) | CONTROLLED NASF EXCL. "ON-SITE PATIENT CARE" AND "OTHER" (3) | PERCENT OF NASF CONSIDERED SATIS- FACTORY (4) | PERCENT OF NASF NEEDING REMODELING (5) | PERCENT OF NASF NEEDING REPLACE- MENT (6) | NASF (000) NEEDED (POST- CONSTRU- TION) (7) |
|-------------------|---|---|--|--|--|--|--|
| TOTAL | 35548 | 23844 | 18483 | 84 | 8 | 8 | 6468 |
| NUMBER OF SCHOOLS | 95 | 95 | 95 | 94 | 94 | 94 | 95 |
| MEAN | 374 | 251 | 195 | 87 | 5 | 7 | 68 |
| HIGH | 1713 | 1295 | 521 | 100 | 38 | 100 | 1080 |
| LOW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 022 | 156 | 110 | 104 | 100 | 1 | 0 | 0 |
| 023 | 0 | 58 | 55 | 100 | 0 | 0 | 0 |
| 024 | 397 | 245 | 190 | 100 | 0 | 0 | 150 |
| 025 | 95 | 56 | 47 | 100 | 0 | 0 | 15 |
| 054 | 1602 | 615 | 521 | 95 | 5 | 0 | 178 |
| 055 | 405 | 234 | 170 | 70 | 10 | 21 | 604 |
| 074 | 646 | 446 | 369 | 92 | 0 | 8 | 14 |
| 091 | 371 | 233 | 96 | 94 | 4 | 0 | 2 |
| 094 | 1713 | 967 | 501 | 58 | 21 | 21 | 403 |
| 095 | 229 | 185 | 127 | 100 | 0 | 0 | 1080 |
| 112 | 266 | 199 | 177 | 100 | 0 | 0 | 24 |
| 121 | 33 | 18 | 18 | 100 | 0 | 0 | 43 |
| 133 | 980 | 572 | 497 | 93 | 2 | 5 | 339 |
| 134 | 400 | 323 | 284 | 55 | 35 | 9 | 0 |
| 141 | 778 | 447 | 267 | 100 | 0 | 0 | 0 |
| 142 | 423 | 291 | 238 | 100 | 0 | 0 | 84 |
| 145 | 649 | 311 | 253 | 100 | 0 | 0 | 0 |
| 152 | 0 | 25 | 25 | 68 | 0 | 28 | 63 |
| 153 | 26 | 23 | 9 | 100 | 0 | 0 | 0 |
| 172 | 0 | 33 | 31 | 0 | 0 | 100 | 0 |
| 184 | 307 | 322 | 161 | 100 | 0 | 0 | 0 |
| 203 | 719 | 429 | 394 | 69 | 31 | 0 | 187 |
| 212 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 215 | 183 | 167 | 106 | 100 | 0 | 0 | 216 |
| 222 | 147 | 81 | 73 | 100 | 0 | 0 | 0 |
| 224 | 0 | 62 | 59 | 100 | 0 | 0 | 12 |
| 241 | 233 | 167 | 145 | 100 | 0 | 0 | 90 |
| 252 | 593 | 347 | 279 | 81 | 19 | 0 | 63 |
| 254 | 650 | 365 | 296 | 92 | 8 | 0 | 30 |
| 275 | 549 | 333 | 281 | 99 | 0 | 0 | 90 |
| 283 | 327 | 259 | 212 | 96 | 4 | 0 | 243 |
| 295 | 448 | 335 | 320 | 19 | 0 | 81 | 0 |
| 311 | 100 | 124 | 108 | 100 | 0 | 0 | 44 |
| 315 | 58 | 84 | 69 | 99 | 1 | 0 | 28 |
| 324 | 574 | 270 | 256 | 83 | 17 | 0 | 112 |
| 333 | 330 | 233 | 217 | 100 | 0 | 0 | 38 |
| 341 | 93 | 105 | 91 | 86 | 0 | 14 | 14 |
| 345 | 415 | 252 | 217 | 100 | 0 | 0 | 35 |
| 362 | 471 | 221 | 202 | 62 | 10 | 29 | 133 |
| 371 | 537 | 404 | 361 | 100 | 0 | 0 | 55 |
| 374 | 541 | 488 | 422 | 100 | 0 | 0 | 0 |
| 393 | 0 | 50 | 26 | 100 | 0 | 0 | 0 |
| 395 | 240 | 157 | 151 | 100 | 0 | 0 | 0 |
| 401 | 347 | 218 | 175 | 98 | 2 | 0 | 27 |

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MEDICINE

(CONTINUED)

| | OWNED AND CONTROLLED GROSS SQUARE FOOTAGE (000) (1) | CONTROLLED NASF (000) IN TOTAL (2) | CONTROLLED NASF EXCL. "ON-SITE PATIENT CARE" AND "OTHER" (3) | PERCENT OF NASF CONSIDERED SATIS- FACTORY (4) | PERCENT OF NASF NEEDING REMODELING (5) | PERCENT OF NASF NEEDING REPLACE- MENT (6) | NASF (000) NEEDED (POST- CONSTRU- TION) (7) |
|-----|---|---|--|--|--|--|--|
| 415 | 543 | 301 | 279 | 87 | 7 | 6 | 89 |
| 433 | 0 | 656 | 442 | 78 | 22 | 0 | 20 |
| 455 | 0 | 98 | 88 | 100 | 0 | 0 | 49 |
| 472 | 1055 | 475 | 464 | 100 | 0 | 0 | 0 |
| 483 | 137 | 73 | 66 | 75 | 10 | 15 | 10 |
| 484 | 264 | 196 | 154 | 92 | 0 | 8 | 0 |
| 522 | 420 | 240 | 201 | 73 | 27 | 0 | 40 |
| 531 | 1124 | 768 | 402 | 86 | 0 | 14 | 264 |
| 543 | 250 | 153 | 143 | 87 | 13 | 0 | 24 |
| 562 | 193 | 161 | 134 | 100 | 0 | 0 | 16 |
| 563 | 70 | 38 | 30 | 84 | 11 | 5 | 31 |
| 574 | 865 | 592 | 292 | 90 | 9 | 1 | 61 |
| 575 | 74 | 54 | 54 | 100 | 0 | 0 | 0 |
| 583 | 153 | 109 | 109 | 100 | 0 | 0 | 0 |
| 602 | 237 | 108 | 97 | 100 | 0 | 0 | 0 |
| 613 | 206 | 169 | 161 | 100 | 0 | 0 | 55 |
| 624 | 201 | 133 | 133 | 100 | 0 | 0 | 31 |
| 635 | 588 | 374 | 347 | 71 | 29 | 0 | 0 |
| 651 | 124 | 68 | 65 | 100 | 0 | 0 | 0 |
| 652 | 322 | 195 | 143 | 80 | 18 | 2 | 101 |
| 653 | 373 | 209 | 177 | 100 | 0 | 0 | 0 |
| 664 | 504 | 284 | 220 | 100 | 0 | 0 | 0 |
| 671 | 738 | 626 | 409 | 91 | 9 | 0 | 0 |
| 672 | 71 | 40 | 27 | 100 | 0 | 0 | 0 |
| 683 | 228 | 134 | 115 | 81 | 10 | 10 | 36 |
| 711 | 91 | 49 | 48 | 69 | 27 | 4 | 50 |
| 714 | 399 | 201 | 199 | 79 | 5 | 16 | 0 |
| 731 | 511 | 323 | 194 | 100 | 0 | 0 | 0 |
| 743 | 582 | 411 | 324 | 100 | 0 | 0 | 0 |
| 744 | 1636 | 1295 | 408 | 39 | 27 | 34 | 0 |
| 761 | 213 | 137 | 132 | 92 | 7 | 0 | 136 |
| 772 | 0 | 542 | 492 | 87 | 6 | 7 | 83 |
| 774 | 563 | 325 | 287 | 70 | 0 | 30 | 0 |
| 783 | 486 | 295 | 293 | 84 | 13 | 3 | 27 |
| 802 | 337 | 193 | 180 | 89 | 0 | 11 | 0 |
| 813 | 75 | 64 | 64 | 100 | 0 | 0 | 0 |
| 823 | 459 | 240 | 220 | 100 | 0 | 0 | 0 |
| 831 | 358 | 198 | 187 | 100 | 0 | 0 | 137 |
| 863 | 443 | 231 | 202 | 62 | 38 | 0 | 7 |
| 864 | 202 | 126 | 111 | 100 | 0 | 0 | 0 |
| 872 | 839 | 569 | 394 | 77 | 23 | 0 | 0 |
| 891 | 33 | 35 | 33 | 100 | 0 | 0 | 292 |
| 903 | 226 | 208 | 197 | 0 | 0 | 100 | 0 |
| 904 | 227 | 130 | 110 | 100 | 0 | 0 | 0 |
| 921 | 449 | 248 | 229 | 71 | 24 | 5 | 335 |
| 951 | 289 | 172 | 162 | 95 | 5 | 0 | 60 |
| 952 | 260 | 75 | 75 | 100 | 0 | 0 | 32 |
| 953 | 541 | 291 | 291 | 100 | 0 | 0 | 21 |
| 954 | 173 | 158 | 153 | 0 | 0 | 100 | 0 |
| 962 | 100 | 74 | 27 | 100 | 0 | 0 | 0 |
| 973 | 285 | 136 | 119 | 100 | 0 | 0 | 45 |

SCHOOLS FOR WHICH
VALUES ARE UNDEFINED

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TABLE J.3.

CONTROLLED NONCLINICAL INSTRUCTION FACILITIES --FALL, 1973

OPTOMETRY

| | OWNED AND CONTROLLED GROSS SQUARE FOOTAGE (000) (1) | CONTROLLED NASF (000) IN TOTAL (2) | CONTROLLED NASF EXCL. "ON-SITE PATIENT CARE" AND "OTHER" (3) | PERCENT OF NASF CONSIDERED SATIS- FACTORY (4) | PERCENT OF NASF NEEDING REMODELING (5) | PERCENT OF NASF NEEDING REPLACE- MENT (6) | NASF (000) NEEDED (POST- CONSTRUC- TION) (7) |
|-------------------|---|---|--|--|--|--|---|
| TOTAL | 565 | 376 | 243 | 89 | 4 | 7 | 145 |
| NUMBER OF SCHOOLS | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| MEAN | 56 | 38 | 24 | 83 | 3 | 14 | 14 |
| HIGH | 105 | 71 | 47 | 100 | 20 | 100 | 37 |
| LOW | 0 | 15 | 10 | 0 | 0 | 0 | 0 |
| 065 | 105 | 54 | 39 | 100 | 0 | 0 | 0 |
| 072 | 96 | 71 | 36 | 100 | 0 | 0 | 14 |
| 101 | 31 | 15 | 11 | 0 | 0 | 100 | 0 |
| 211 | 85 | 53 | 34 | 100 | 0 | 0 | 6 |
| 235 | 34 | 23 | 10 | 83 | 0 | 17 | 37 |
| 281 | 30 | 23 | 15 | 96 | 0 | 4 | 26 |
| 334 | 44 | 32 | 14 | 100 | 0 | 0 | 33 |
| 634 | 86 | 59 | 47 | 80 | 20 | 0 | 0 |
| 892 | 54 | 28 | 20 | 68 | 14 | 18 | 24 |
| 933 | 0 | 18 | 17 | 100 | 0 | 0 | 5 |

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TABLE J.4

CONTROLLED NONCLINICAL INSTRUCTION FACILITIES --FALL, 1973

OSTEOPATHY

| | OWNED AND CONTROLLED GROSS SQUARE FOOTAGE (000) (1) | CONTROLLED NASF (000) IN TOTAL (2) | CONTROLLED NASF EXCL. "ON-SITE PATIENT CARE" AND "OTHER" (3) | PERCENT OF NASF CONSIDERED SATIS- FACTORY (4) | PERCENT OF NASF NEEDING REMODELING (5) | PERCENT OF NASF NEEDING REPLACE- MENT (6) | NASF (000) NEEDED (POST- CONSTRUC- TION) (7) |
|-------------------|---|---|--|--|--|--|---|
| TOTAL | 698 | 571 | 226 | 91 | 3 | 6 | 69 |
| NUMBER OF SCHOOLS | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| MEAN | 140 | 114 | 45 | 90 | 6 | 4 | 14 |
| HIGH | 258 | 193 | 57 | 100 | 27 | 15 | 49 |
| LOW | 0 | 41 | 29 | 73 | 0 | 0 | 0 |
| 033 | 0 | 41 | 40 | 100 | 0 | 0 | 17 |
| 062 | 258 | 193 | 47 | 85 | 0 | 15 | 0 |
| 293 | 70 | 49 | 29 | 73 | 27 | 0 | 3 |
| 303 | 216 | 163 | 57 | 94 | 3 | 3 | 49 |
| 402 | 154 | 125 | 53 | 100 | 0 | 0 | 0 |

TABLE J.5

CONTROLLED NONCLINICAL INSTRUCTION FACILITIES --FALL, 1973

PHARMACY

| | OWNED AND CONTROLLED GROSS SQUARE FOOTAGE (000) (1) | CONTROLLED NASF (000) IN TOTAL (2) | CONTROLLED NASF EXCL. "ON-SITE PATIENT CARE" AND "OTHER" (3) | PERCENT OF NASF CONSIDERED SATIS- FACTORY (4) | PERCENT OF NASF NEEDING REMODELING (5) | PERCENT OF NASF NEEDING REPLACE- MENT (6) | NASF (000) NEEDED (POST- CONSTRUC- TION) (7) |
|----------------------------|---|---|--|--|--|--|---|
| TOTAL NUMBER OF SCHOOLS | 3060 | 2294 | 2016 | 90 | 3 | 7 | 506 |
| MEAN | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| HIGH | 48 | 36 | 31 | 85 | 5 | 10 | 8 |
| LOW | 215 | 152 | 118 | 105 | 64 | 100 | 39 |
| | 0 | 3 | 3 | 0 | 0 | 0 | 0 |
| 005 | 0 | 14 | 13 | 79 | 7 | 14 | 8 |
| 011 | 34 | 26 | 24 | 35 | 23 | 42 | 24 |
| 041 | 39 | 25 | 13 | 72 | 8 | 20 | 0 |
| 052 | 37 | 27 | 23 | 100 | 0 | 0 | 1 |
| 105 | 45 | 31 | 31 | 100 | 0 | 0 | 0 |
| 143 | 39 | 37 | 19 | 100 | 0 | 0 | 0 |
| 144 | 65 | 54 | 50 | 89 | 11 | 0 | 6 |
| 151 | 28 | 17 | 14 | 100 | 0 | 0 | 37 |
| 181 | 23 | 15 | 14 | 100 | 0 | 0 | 7 |
| 195 | 31 | 20 | 20 | 40 | 30 | 30 | 8 |
| 204 | 45 | 33 | 31 | 100 | 0 | 0 | 5 |
| 213 | 52 | 35 | 31 | 0 | 0 | 100 | 20 |
| 245 | 45 | 27 | 26 | 100 | 0 | 0 | 33 |
| 262 | 186 | 115 | 106 | 100 | 0 | 0 | 20 |
| 263 | 0 | 52 | 42 | 100 | 0 | 0 | 30 |
| 265 | 56 | 34 | 33 | 100 | 0 | 0 | 13 |
| 294 | 0 | 29 | 20 | 100 | 0 | 0 | 3 |
| 313 | 60 | 38 | 37 | 100 | 0 | 0 | 5 |
| 344 | 94 | 56 | 51 | 98 | 0 | 2 | 11 |
| 375 | 74 | 39 | 35 | 100 | 0 | 0 | 0 |
| 382 | 150 | 87 | 80 | 100 | 0 | 0 | 0 |
| 384 | 30 | 19 | 16 | 89 | 0 | 11 | 1 |
| 403 | 30 | 20 | 18 | 100 | 0 | 0 | 22 |
| 404 | 0 | 19 | 17 | 100 | 0 | 0 | 2 |
| 422 | 16 | 10 | 10 | 90 | 0 | 10 | 2 |
| 453 | 15 | 10 | 10 | 100 | 0 | 0 | 2 |
| 454 | 22 | 18 | 18 | 56 | 0 | 44 | 25 |
| 461 | 0 | 69 | 42 | 100 | 0 | 0 | 11 |
| 465 | 0 | 30 | 28 | 23 | 37 | 40 | 6 |
| 482 | 77 | 55 | 48 | 100 | 0 | 0 | 0 |
| 493 | 4 | 3 | 3 | 33 | 0 | 67 | 0 |
| 511 | 30 | 25 | 24 | 56 | 44 | 0 | 0 |
| 514 | 36 | 26 | 25 | 100 | 0 | 0 | 13 |
| 523 | 27 | 17 | 15 | 0 | 0 | 100 | 33 |
| 532 | 61 | 39 | 37 | 100 | 0 | 0 | 6 |
| 535 | 34 | 22 | 19 | 91 | 9 | 0 | 4 |
| 571 | 18 | 11 | 8 | 36 | 64 | 0 | 14 |
| 572 | 0 | 40 | 37 | 97 | 2 | 0 | 9 |
| 585 | 31 | 23 | 20 | 100 | 0 | 0 | 0 |
| 594 | 37 | 23 | 23 | 100 | 0 | 0 | 0 |
| 621 | 56 | 40 | 38 | 77 | 22 | 0 | 9 |
| 645 | 75 | 60 | 56 | 100 | 0 | 0 | 0 |
| 663 | 62 | 39 | 33 | 100 | 0 | 0 | 0 |
| 665 | 45 | 29 | 25 | 100 | 0 | 0 | 0 |

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TABLE J.5 (Continued)

CONTROLLED NONCLINICAL INSTRUCTION FACILITIES --FALL, 1973

PHARMACY

(CONTINUED)

| | OWNED AND CONTROLLED GROSS SQUARE FOOTAGE (000) (1) | CONTROLLED NASF (000) IN TOTAL (2) | CONTROLLED NASF EXCL. "ON-SITE PATIENT CARE" AND "OTHER" (3) | PERCENT OF NASF CONSIDERED SATIS- FACTORY (4) | PERCENT OF NASF NEEDING REMODELING (5) | PERCENT OF NASF NEEDING REPLACE- MENT (6) | NASF (000) NEEDED (POST- CONSTRUC- TION) (7) |
|-----|---|---|--|--|--|--|---|
| 684 | 215 | 152 | 118 | 100 | 0 | 0 | 0 |
| 692 | 76 | 24 | 52 | 100 | 0 | 0 | 0 |
| 693 | 13 | 10 | 9 | 50 | 0 | 50 | 4 |
| 703 | 118 | 43 | 43 | 0 | 0 | 100 | 0 |
| 724 | 31 | 29 | 28 | 66 | 10 | 24 | 4 |
| 742 | 42 | 27 | 24 | 100 | 0 | 0 | 0 |
| 753 | 63 | 40 | 32 | 85 | 15 | 0 | 3 |
| 801 | 55 | 40 | 38 | 100 | 0 | 0 | 0 |
| 812 | 70 | 43 | 43 | 100 | 0 | 0 | 0 |
| 824 | 55 | 33 | 31 | 94 | 6 | 0 | 39 |
| 841 | 32 | 27 | 26 | 100 | 0 | 0 | 2 |
| 874 | 26 | 22 | 19 | 100 | 0 | 0 | 2 |
| 883 | 23 | 15 | 14 | 100 | 0 | 0 | 0 |
| 902 | 123 | 81 | 67 | 93 | 7 | 0 | 13 |
| 922 | 33 | 22 | 18 | 100 | 0 | 0 | 0 |
| 923 | 48 | 40 | 40 | 100 | 0 | 0 | 0 |
| 971 | 43 | 38 | 26 | 100 | 0 | 0 | 10 |
| 982 | 62 | 38 | 36 | 105 | 0 | 0 | 0 |
| 984 | 24 | 16 | 15 | 100 | 0 | 0 | 9 |
| 991 | 99 | 54 | 54 | 100 | 0 | 0 | 30 |

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TABLE J.6

CONTROLLED NONCLINICAL INSTRUCTION FACILITIES --FALL, 1973

PODIATRY

| | OWNED AND CONTROLLED GROSS SQUARE FOOTAGE (000) (1) | CONTROLLED NASF (000) IN TOTAL (2) | CONTROLLED NASF EXCL. "ON-SITE PATIENT CARE" AND "OTHER" (3) | PERCENT OF NASF CONSIDERED SATIS- FACTORY (4) | PERCENT OF NASF NEEDING REMODELING (5) | PERCENT OF NASF NEEDING REPLACE- MENT (6) | NASF (000) NEEDED (POST- CONSTRUC- TION) (7) |
|-------------------|---|---|--|--|--|--|---|
| TOTAL | 263 | 140 | 86 | 59 | 4 | 36 | 109 |
| NUMBER OF SCHOOLS | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| MEAN | 53 | 28 | 17 | 40 | 8 | 52 | 22 |
| HIGH | 157 | 67 | 34 | 100 | 29 | 100 | 43 |
| LOW | 20 | 14 | 9 | 0 | 0 | 0 | 0 |
| 082 | 157 | 67 | 34 | 100 | 0 | 0 | 0 |
| 191 | 37 | 14 | 12 | 71 | 29 | 0 | 34 |
| 264 | 22 | 19 | 13 | 0 | 0 | 100 | 43 |
| 644 | 20 | 25 | 18 | 20 | 0 | 80 | 0 |
| 833 | 27 | 15 | 9 | 7 | 13 | 80 | 32 |

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TABLE J.7

CONTROLLED NONCLINICAL INSTRUCTION FACILITIES --FALL, 1973

PUBLIC HEALTH

| | OWNED AND CONTROLLED GROSS FOOTAGE (000) (1) | CONTROLLED NASF (000) IN TOTAL (2) | CONTROLLED NASF EXCL. "ON-SITE PATIENT CARE" AND "OTHER" (3) | PERCENT OF NASF CONSIDERED SATIS- FACTORY (4) | PERCENT OF NASF NEEDING REMODELING (5) | PERCENT OF NASF NEEDING REPLACE- MENT (6) | NASF (000) NEEDED (POST- CONSTRUC- TION) (7) |
|-------------------|---|---|--|--|--|--|---|
| TOTAL | 1514 | 1009 | 925 | 81 | 8 | 6 | 291 |
| NUMBER OF SCHOOLS | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| MEAN | 116 | 78 | 71 | 79 | 4 | 11 | 22 |
| HIGH | 405 | 225 | 199 | 100 | 35 | 100 | 101 |
| LOW | 0 | 10 | 9 | 0 | 0 | 0 | 0 |
| 032 | 50 | 31 | 31 | 100 | 0 | 0 | 0 |
| 154 | 138 | 94 | 81 | 82 | 0 | 18 | 51 |
| 223 | 0 | 48 | 43 | 83 | 10 | 6 | 17 |
| 251 | 53 | 38 | 27 | 87 | 3 | 11 | 10 |
| 272 | 3 | 10 | 9 | 100 | 0 | 0 | 6 |
| 291 | 77 | 82 | 79 | 100 | 0 | 0 | 46 |
| 381 | 142 | 65 | 65 | 100 | 0 | 0 | 0 |
| 494 | 8 | 35 | 35 | 0 | 0 | 100 | 101 |
| 661 | 99 | 48 | 45 | 100 | 0 | 0 | 9 |
| 762 | 320 | 225 | 199 | 65 | 35 | 0 | 51 |
| 763 | 19 | 53 | 52 | 15 | 0 | 9 | 0 |
| 834 | 200 | 106 | 98 | 100 | 0 | 0 | 0 |
| 882 | 405 | 174 | 161 | 100 | 0 | 0 | 0 |

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TABLE J.8

CONTROLLED NONCLINICAL INSTRUCTION FACILITIES --FALL, 1973

VETERINARY MEDICINE

| | OWNED AND CONTROLLED GROSS SQUARE FOOTAGE (000) (1) | CONTROLLED NASF (000) IN TOTAL (2) | CONTROLLED NASF EXCL. "ON-SITE PATIENT CARE" AND "OTHER" (3) | PERCENT OF NASF CONSIDERED SATIS- FACTORY (4) | PERCENT OF NASF NEEDING REMODELING (5) | PERCENT OF NASF NEEDING REPLACE- MENT (6) | NASF (000) NEEDED (POST- CONSTRUC- TION) (7) |
|---|---|---|--|--|--|--|---|
| TOTAL | 3458 | 2403 | 1895 | 79 | 8 | 13 | 1181 |
| NUMBER OF SCHOOLS | 19 | 19 | 19 | 18 | 18 | 18 | 19 |
| MEAN | 182 | 126 | 100 | 73 | 11 | 17 | 62 |
| HIGH | 391 | 281 | 242 | 100 | 75 | 100 | 245 |
| LOW | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 002 | 246 | 213 | 156 | 68 | 0 | 32 | 68 |
| 021 | 219 | 127 | 118 | 100 | 2 | 0 | 34 |
| 043 | 14 | 31 | 24 | 100 | 0 | 0 | 0 |
| 061 | 76 | 40 | 29 | 25 | 75 | 0 | 21 |
| 165 | 315 | 169 | 151 | 98 | 2 | 0 | 0 |
| 243 | 275 | 161 | 98 | 57 | 25 | 18 | 103 |
| 292 | 261 | 172 | 125 | 100 | 0 | 0 | 26 |
| 321 | 0 | 116 | 104 | 43 | 26 | 31 | 70 |
| 354 | 301 | 224 | 138 | 100 | 0 | 0 | 127 |
| 363 | 169 | 84 | 84 | 95 | 0 | 6 | 184 |
| 392 | 197 | 71 | 65 | 100 | 0 | 0 | 1 |
| 424 | 140 | 99 | 69 | 91 | 4 | 5 | 19 |
| 442 | 122 | 119 | 110 | 15 | 50 | 34 | 114 |
| 502 | 0 | 80 | 72 | 64 | 0 | 37 | 116 |
| 545 | 216 | 157 | 71 | 87 | 0 | 13 | 51 |
| 551 | 382 | 281 | 229 | 68 | 10 | 22 | 245 |
| 622 | 17 | 12 | 10 | 0 | 0 | 100 | 0 |
| 784 | 348 | 247 | 242 | 100 | 0 | 0 | 0 |
| 851 | 0 | 0 | 0 | | | | |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | | | | 851 | 851 | 851 | |

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FOOTNOTES

CONTROLLED NONCLINICAL INSTRUCTION FACILITIES--FALL, 1973

1. Figures exclude GSF of rented or leased facilities.
2. The figure displayed includes both owned and rented facilities, and further includes those areas considered "on-site patient care" and "other". If GSF figure was not reported by respondent, a zero is displayed.
4. Sum of columns 4-6 may not equal 100% due to round-off error and data errors (or missing data) uncorrected at the time of this writing.
6. Computed by subtracting "NASF which could be made satisfactory by remodeling" from the difference between total NASF and "NASF considered satisfactory for program purposes".
7. The figure displayed represents the additional NASF (in 000's) of controlled nonclinical instruction facilities perceived as needed by respondents following the completion of their existing construction and remodeling programs.

TABLE J.9

DETAILING OF STUDENT STATIONS BY ROOM-TYPE
FALL, 1973

DENTISTRY

| | <.....NUMBER OF ALLOCATED STUDENT STATIONS.....> | | | | | <.....NASF PER ALLOCATED STUDENT STATION.....> | | | |
|-------------------|--|-----------------|--|----------------|-------------------|--|-----------------|--|----------------|
| | CLASSROOM (1) | CLASSLAB (2) | RESEARCH AND RESEARCH TRAINING (3) | LIBRARY (4) | AUDITORIUM (5) | CLASSROOM (6) | CLASSLAB (7) | RESEARCH AND RESEARCH TRAINING (8) | LIBRARY (9) |
| TOTAL | 19240 | 16323 | 1565 | 2014 | 2329 | 15 | 42 | 187 | 7 |
| NUMBER OF SCHOOLS | 53 | 53 | 53 | 53 | 53 | 47 | 48 | 34 | 2 |
| PELIN | 363 | 308 | 30 | 38 | 44 | 18 | 50 | 358 | 8 |
| HIGH | 1062 | 1107 | 309 | 445 | 602 | 62 | 250 | 1143 | 33 |
| LOW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| 061 | 120 | 236 | 0 | 0 | 0 | 17 | 17 | | |
| 085 | 270 | 268 | 35 | 0 | 0 | 11 | 34 | 29 | |
| 102 | 740 | 474 | 36 | 0 | 0 | 15 | 34 | 250 | |
| 124 | 528 | 383 | 30 | 0 | 0 | 17 | 52 | 600 | |
| 132 | 374 | 213 | 16 | 75 | 0 | 13 | 29 | 167 | 10 |
| 135 | 933 | 640 | 53 | 92 | 0 | 10 | 47 | 57 | 7 |
| 192 | 72 | 94 | 13 | 61 | 150 | 28 | 64 | 538 | 11 |
| 193 | 145 | 371 | 20 | 35 | 0 | 21 | 30 | 500 | 2 |
| 231 | 289 | 315 | 0 | 0 | 0 | 10 | 38 | | |
| 242 | 0 | 280 | 0 | 0 | 0 | | 96 | | |
| 244 | 684 | 430 | 32 | 445 | 0 | 18 | 44 | 375 | 7 |
| 305 | 487 | 248 | 40 | 43 | 396 | 14 | 69 | 1050 | 9 |
| 314 | 1062 | 1107 | 130 | 0 | 0 | 16 | 26 | 108 | |
| 335 | 144 | 0 | 0 | 0 | 0 | 14 | | | |
| 352 | 700 | 500 | 300 | 50 | 0 | 14 | 30 | 23 | 12 |
| 361 | 287 | 299 | 79 | 0 | 0 | 17 | 37 | 177 | |
| 383 | 617 | 342 | 28 | 85 | 0 | 18 | 70 | 250 | 7 |
| 423 | 256 | 236 | 0 | 60 | 0 | 16 | 25 | | 6 |
| 445 | 458 | 480 | 30 | 90 | 0 | 17 | 46 | 233 | 3 |
| 462 | 260 | 192 | 18 | 44 | 360 | 19 | 52 | 444 | 4 |
| 471 | 703 | 640 | 0 | 6 | 0 | 16 | 19 | | 33 |
| 473 | 180 | 151 | 6 | 32 | 0 | 17 | 26 | 333 | 3 |
| 474 | 48 | 216 | 6 | 0 | 88 | 21 | 79 | 167 | |
| 491 | 864 | 571 | 10 | 54 | 0 | 13 | 51 | 900 | 3 |
| 513 | 300 | 420 | 0 | 45 | 0 | 13 | 33 | | 4 |
| 552 | 158 | 269 | 20 | 0 | 0 | 19 | 19 | 350 | |
| 564 | 638 | 572 | 0 | 52 | 0 | 14 | 24 | | 5 |
| 565 | 1 | 120 | 19 | 0 | 0 | 0 | 42 | 53 | |
| 591 | 0 | 0 | 0 | 0 | 0 | | | | |
| 592 | 378 | 340 | 78 | 0 | 0 | 16 | 85 | 38 | |
| 603 | 356 | 128 | 30 | 0 | 0 | 14 | 8 | 133 | |
| 605 | 1001 | 998 | 1 | 50 | 0 | 9 | 11 | 1000 | 26 |
| 633 | 402 | 461 | 50 | 94 | 429 | 15 | 33 | 160 | 6 |
| 641 | 111 | 172 | 0 | 0 | 0 | 19 | 70 | | |
| 642 | 80 | 504 | 0 | 208 | 602 | 62 | 50 | | 7 |
| 701 | 435 | 404 | 36 | 0 | 0 | 14 | 72 | 56 | |
| 704 | 185 | 265 | 21 | 0 | 0 | 59 | 30 | 190 | |
| 715 | 0 | 0 | 0 | 0 | 0 | | | | |
| 733 | 152 | 106 | 0 | 0 | 0 | 26 | 19 | | |
| 751 | 345 | 150 | 2 | 179 | 0 | 12 | 40 | 0 | 2 |
| 764 | 890 | 299 | 0 | 75 | 304 | 18 | 27 | | 6 |
| 792 | 592 | 144 | 0 | 0 | 0 | 20 | 250 | | |

TABLE J.9

DETAILING OF STUDENT STATIONS BY ROOM-TYPE:
FALL, 1973

|NUMBER OF ALLOCATED STUDENT STATIONS.....<.....NASF PER ALLOCATED STUDENT STATION.....> | | | | | | | | | |
|--|----------|---|---------|------------|-----------|----------|---|---------|------------|
| CLASSROOM | CLASSLAB | RESEARCH AND RESEARCH TRAINING | LIBRARY | AUDITORIUM | CLASSROOM | CLASSLAB | RESEARCH AND RESEARCH TRAINING | LIBRARY | AUDITORIUM |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 19240 | 16323 | 1565 | 2014 | 2329 | 15 | 42 | 187 | 71 | 11 |
| 53 | 53 | 53 | 53 | 53 | 47 | 48 | 34 | 24 | 7 |
| 363 | 308 | 30 | 38 | 44 | 18 | 50 | 358 | 87 | 13 |
| 1062 | 1107 | 309 | 445 | 602 | 62 | 250 | 1143 | 333 | 23 |
| 0 | 0 | 0 | 0 | 0 | 0 | 8 | 0 | 25 | 3 |
| 120 | 236 | 0 | 0 | 0 | 17 | 17 | | | |
| 270 | 268 | 35 | 0 | 0 | 11 | 34 | 29 | | |
| 740 | 474 | 36 | 0 | 0 | 15 | 34 | 250 | | |
| 528 | 383 | 30 | 0 | 0 | 17 | 52 | 600 | | |
| 374 | 213 | 16 | 75 | 0 | 13 | 29 | 167 | 107 | |
| 933 | 640 | 53 | 92 | 0 | 10 | 47 | 57 | 76 | |
| 72 | 94 | 13 | 61 | 150 | 28 | 64 | 538 | 115 | 20 |
| 145 | 371 | 20 | 35 | 0 | 21 | 30 | 500 | 29 | |
| 289 | 315 | 0 | 0 | 0 | 10 | 38 | | | |
| 0 | 280 | 0 | 0 | 0 | | 96 | | | |
| 684 | 430 | 32 | 445 | 0 | 18 | 44 | 375 | 79 | |
| 487 | 248 | 40 | 43 | 396 | 14 | 69 | 1050 | 93 | 8 |
| 1062 | 1107 | 130 | 0 | 0 | 16 | 26 | 108 | | |
| 144 | 0 | 0 | 0 | 0 | 14 | | | | |
| 700 | 500 | 300 | 50 | 0 | 14 | 30 | 23 | 120 | |
| 287 | 299 | 79 | 0 | 0 | 17 | 37 | 177 | | |
| 617 | 342 | 28 | 85 | 0 | 18 | 70 | 250 | 71 | |
| 236 | 236 | 0 | 60 | 0 | 16 | 25 | | 67 | |
| 458 | 480 | 30 | 90 | 0 | 17 | 46 | 233 | 33 | |
| 260 | 192 | 18 | 44 | 360 | 19 | 52 | 444 | 45 | 11 |
| 703 | 640 | 0 | 6 | 0 | 16 | 19 | | 333 | |
| 180 | 151 | 6 | 32 | 0 | 17 | 26 | 333 | 31 | |
| 48 | 216 | 6 | 0 | 88 | 21 | 79 | 167 | | 33 |
| 864 | 571 | 10 | 54 | 0 | 13 | 51 | 900 | 37 | |
| 300 | 420 | 0 | 45 | 0 | 13 | 33 | | 44 | |
| 158 | 269 | 20 | 0 | 0 | 19 | 19 | 350 | | |
| 638 | 572 | 0 | 52 | 0 | 14 | 24 | | 58 | |
| 1 | 120 | 19 | 0 | 0 | 0 | 42 | 53 | | |
| 0 | 0 | 0 | 0 | 0 | | | | | |
| 378 | 340 | 78 | 0 | 0 | 16 | 85 | 38 | | |
| 356 | 128 | 30 | 0 | 0 | 14 | 8 | 133 | | |
| 1001 | 998 | 1 | 50 | 0 | 9 | 11 | 1000 | 260 | |
| 402 | 461 | 50 | 94 | 429 | 15 | 33 | 160 | 64 | 12 |
| 111 | 172 | 0 | 0 | 0 | 19 | 70 | | | |
| 80 | 504 | 0 | 208 | 602 | 62 | 50 | | 72 | 13 |
| 435 | 404 | 36 | 0 | 0 | 14 | 72 | 56 | | |
| 185 | 265 | 21 | 0 | 0 | 59 | 30 | 190 | | |
| 0 | 0 | 0 | 0 | 0 | | | | | |
| 152 | 106 | 0 | 0 | 0 | 26 | 19 | | | |
| 345 | 150 | 2 | 179 | 0 | 12 | 40 | 0 | 28 | |
| 890 | 299 | 0 | 75 | 304 | 18 | 27 | | 67 | 3 |
| 592 | 144 | 0 | 0 | 0 | 20 | 250 | | | |

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TABLE J.9 (Continued)

DETAILING OF STUDENT STATIONS BY ROOM-TYPE:
FALL, 1973

DENTISTRY

(CONTINUED)

| <*****NUMBER OF ALLOCATED STUDENT STATIONS*****> | | | | | | <*****NASF PER ALLOCATED STUDENT STATION*****> | | | |
|--|------------------|-----------------|--|----------------|-------------------|--|-----------------|--|----------------|
| | CLASSROOM (1) | CLASSLAB (2) | RESEARCH AND RESEARCH TRAINING (3) | LIBRARY (4) | AUDITORIUM (5) | CLASSROOM (6) | CLASSLAB (7) | RESEARCH AND RESEARCH TRAINING (8) | LIBRARY (9) |
| 804 | 1025 | 571 | 14 | 6 | 0 | 7 | 26 | 1143 | 16 |
| 821 | 24 | 32 | 4 | 0 | 0 | 42 | 31 | 250 | |
| 832 | 0 | 0 | 0 | 0 | 0 | | | | |
| 853 | 695 | 680 | 28 | 51 | 0 | 10 | 29 | 571 | 3 |
| 854 | 156 | 250 | 6 | 0 | 0 | 13 | 72 | 1000 | |
| 862 | 75 | 46 | 0 | 0 | 0 | 13 | 87 | | |
| 911 | 488 | 297 | 15 | 82 | 0 | 20 | 27 | 467 | 4 |
| 913 | 342 | 106 | 309 | 0 | 0 | 12 | 57 | 65 | |
| 941 | 190 | 163 | 50 | 0 | 0 | 16 | 166 | 460 | |
| 942 | 0 | 0 | 0 | 0 | 0 | | | | |
| 944 | 0 | 140 | 0 | 0 | 0 | | 57 | | |
| SCHOOLS FOR WHICH | | | | | | 242 | 335 | 81 | 8 |
| VALUES ARE UNDEFINED | | | | | | 591 | 591 | 231 | 8 |
| | | | | | | 715 | 715 | 242 | 10 |
| | | | | | | 832 | 832 | 335 | 12 |
| | | | | | | 942 | 942 | 423 | 23 |
| | | | | | | 944 | | 471 | 24 |
| | | | | | | | | 513 | 31 |
| | | | | | | | | 564 | 33 |
| | | | | | | | | 591 | 36 |
| | | | | | | | | 641 | 47 |
| | | | | | | | | 642 | 55 |
| | | | | | | | | 715 | 56 |
| | | | | | | | | 733 | 59 |
| | | | | | | | | 764 | 59 |
| | | | | | | | | 792 | 60 |
| | | | | | | | | 832 | 64 |
| | | | | | | | | 862 | 70 |
| | | | | | | | | 942 | 70 |
| | | | | | | | | 944 | 71 |
| | | | | | | | | | 735 |
| | | | | | | | | | 792 |
| | | | | | | | | | 822 |
| | | | | | | | | | 832 |
| | | | | | | | | | 854 |
| | | | | | | | | | 862 |
| | | | | | | | | | 913 |
| | | | | | | | | | 941 |
| | | | | | | | | | 942 |
| | | | | | | | | | 944 |

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TABLE J.9 (Continued)

DETAILING OF STUDENT STATIONS BY ROOM-TYPE:
FALL, 1973

(CONTINUED)

| *****NUMBER OF ALLOCATED STUDENT STATIONS***** | | | | | <*****NASF PER ALLOCATED STUDENT STATION*****> | | | | |
|--|-----------------|--|----------------|-------------------|--|-----------------|--|----------------|--------------------|
| CLASSROOM (1) | CLASSLAB (2) | RESEARCH AND RESEARCH TRAINING (3) | LIBRARY (4) | AUDITORIUM (5) | CLASSROOM (6) | CLASSLAB (7) | RESEARCH AND RESEARCH TRAINING (8) | LIBRARY (9) | AUDITORIUM (10) |
| 1025 | 571 | 14 | 6 | 0 | 7 | 26 | 1143 | 167 | |
| 24 | 32 | 4 | 0 | 0 | 42 | 31 | 250 | | |
| 0 | 0 | 0 | 0 | 0 | | | | | |
| 695 | 660 | 28 | 51 | 0 | 10 | 29 | 571 | 39 | |
| 156 | 250 | 6 | 0 | 0 | 13 | 72 | 1000 | | |
| 75 | 46 | 0 | 0 | 0 | 13 | 87 | | | |
| 488 | 297 | 15 | 82 | 0 | 20 | 27 | 467 | 49 | |
| 342 | 106 | 309 | 0 | 0 | 12 | 57 | 65 | | |
| 190 | 163 | 50 | 0 | 0 | 16 | 166 | 460 | | |
| 0 | 0 | 0 | 0 | 0 | | | | | |
| 0 | 140 | 0 | 0 | 0 | | 57 | | | |
| | | | | | 242 | 335 | 81 | 81 | 81 |
| | | | | | 591 | 591 | 231 | 85 | 85 |
| | | | | | 715 | 715 | 242 | 102 | 102 |
| | | | | | 832 | 832 | 335 | 124 | 124 |
| | | | | | 942 | 942 | 423 | 231 | 132 |
| | | | | | 944 | | 471 | 242 | 135 |
| | | | | | | | 513 | 314 | 193 |
| | | | | | | | 564 | 335 | 231 |
| | | | | | | | 591 | 361 | 242 |
| | | | | | | | 641 | 474 | 244 |
| | | | | | | | 642 | 552 | 314 |
| | | | | | | | 715 | 565 | 335 |
| | | | | | | | 733 | 591 | 352 |
| | | | | | | | 764 | 592 | 361 |
| | | | | | | | 792 | 603 | 383 |
| | | | | | | | 832 | 641 | 423 |
| | | | | | | | 862 | 701 | 445 |
| | | | | | | | 942 | 704 | 471 |
| | | | | | | | 944 | 715 | 473 |
| | | | | | | | | 733 | 491 |
| | | | | | | | | 792 | 513 |
| | | | | | | | | 821 | 552 |
| | | | | | | | | 832 | 564 |
| | | | | | | | | 854 | 565 |
| | | | | | | | | 862 | 591 |
| | | | | | | | | 913 | 592 |
| | | | | | | | | 941 | 603 |
| | | | | | | | | 942 | 605 |
| | | | | | | | | 944 | 641 |
| | | | | | | | | | 701 |
| | | | | | | | | | 704 |
| | | | | | | | | | 715 |
| | | | | | | | | | 733 |
| | | | | | | | | | 751 |
| | | | | | | | | | 792 |
| | | | | | | | | | 804 |
| | | | | | | | | | 821 |
| | | | | | | | | | 832 |
| | | | | | | | | | 853 |
| | | | | | | | | | 854 |
| | | | | | | | | | 862 |
| | | | | | | | | | 911 |
| | | | | | | | | | 913 |
| | | | | | | | | | 941 |
| | | | | | | | | | 942 |
| | | | | | | | | | 944 |

TABLE J.10

DETAILING OF STUDENT STATIONS BY ROOM-TYPE:
FALL, 1973

MEDICINE

| | <*****NUMBER OF ALLOCATED STUDENT STATIONS*****> | | | | | <*****NASF PER ALLOCATED STUDENT STATION*****> | | | |
|-------------------|--|-----------------|------------------------------------|----------------|-------------------|--|-----------------|------------------------------------|----------------|
| | CLASSROOM (1) | CLASSLAB (2) | RESEARCH AND TRAINING (3) | LIBRARY (4) | AUDITORIUM (5) | CLASSROOM (6) | CLASSLAB (7) | RESEARCH AND TRAINING (8) | LIBRARY (9) |
| TOTAL | 57750 | 42100 | 16145 | 13737 | 23073 | 17 | 50 | 266 | |
| NUMBER OF SCHOOLS | 95 | 95 | 95 | 95 | 95 | 95 | 87 | 51 | |
| MEAN | 608 | 443 | 170 | 145 | 243 | 21 | 58 | 803 | 1 |
| HIGH | 2520 | 1824 | 3190 | 1335 | 1738 | 124 | 227 | 4900 | 10 |
| LOW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 65 | |
| 022 | 393 | 363 | 0 | 170 | 0 | 15 | 66 | | |
| 023 | 0 | 90 | 0 | 0 | 0 | | 67 | | |
| 024 | 952 | 402 | 21 | 491 | 276 | 17 | 37 | 3143 | |
| 025 | 0 | 250 | 138 | 75 | 0 | | 44 | 138 | |
| 054 | 1579 | 368 | 1130 | 188 | 753 | 26 | 158 | 175 | 1 |
| 055 | 340 | 550 | 22 | 499 | 1026 | 124 | 45 | 545 | |
| 074 | 1600 | 192 | 0 | 191 | 1051 | 9 | 120 | | 1 |
| 091 | 8 | 0 | 50 | 15 | 0 | 0 | | 1880 | 1 |
| 094 | 522 | 157 | 0 | 110 | 0 | 27 | 70 | | 1 |
| 095 | 376 | 240 | 0 | 0 | 300 | 13 | 29 | | |
| 112 | 520 | 500 | 0 | 23 | 150 | 31 | 76 | | 10 |
| 121 | 36 | 25 | 0 | 30 | 0 | 28 | 40 | | 2 |
| 133 | 2010 | 1210 | 400 | 1335 | 0 | 17 | 83 | 515 | |
| 134 | 1225 | 744 | 171 | 300 | 0 | 10 | 66 | 632 | |
| 141 | 619 | 152 | 0 | 200 | 626 | 13 | 86 | | 1 |
| 142 | 1078 | 403 | 355 | 194 | 0 | 25 | 57 | 293 | 1 |
| 145 | 1039 | 418 | 94 | 0 | 0 | 9 | 43 | 1521 | |
| 152 | 154 | 60 | 0 | 120 | 0 | 19 | 100 | | |
| 153 | 40 | 40 | 0 | 40 | 0 | 25 | 75 | | |
| 172 | 0 | 0 | 0 | 24 | 0 | | | | 1 |
| 184 | 75 | 222 | 600 | 108 | 744 | 67 | 149 | 110 | 1 |
| 203 | 1301 | 1130 | 40 | 0 | 180 | 18 | 33 | 4900 | |
| 212 | 0 | 0 | 0 | 0 | 0 | | | | |
| 215 | 305 | 200 | 42 | 40 | 0 | 92 | 65 | 524 | 2 |
| 222 | 445 | 340 | 15 | 210 | 0 | 16 | 29 | 1533 | |
| 224 | 244 | 398 | 72 | 94 | 147 | 12 | 28 | 278 | |
| 241 | 1383 | 943 | 0 | 0 | 0 | 13 | 40 | | |
| 252 | 90 | 943 | 226 | 55 | 0 | 25 | 36 | 588 | 1 |
| 254 | 993 | 352 | 0 | 248 | 0 | 9 | 227 | | 1 |
| 275 | 572 | 624 | 490 | 198 | 0 | 9 | 18 | 290 | |
| 283 | 777 | 591 | 0 | 121 | 0 | 10 | 52 | | |
| 295 | 1800 | 500 | 50 | 700 | 0 | 11 | 42 | 2600 | |
| 311 | 430 | 160 | 214 | 450 | 0 | 23 | 56 | 201 | |
| 315 | 392 | 24 | 99 | 0 | 0 | 28 | 0 | 313 | |
| 324 | 1081 | 768 | 1164 | 0 | 0 | 15 | 51 | 105 | |
| 333 | 850 | 1125 | 128 | 318 | 0 | 13 | 29 | 914 | |
| 341 | 109 | 144 | 252 | 50 | 0 | 18 | 90 | 163 | 18 |
| 345 | 546 | 348 | 0 | 213 | 634 | 15 | 92 | | 10 |
| 362 | 1286 | 756 | 497 | 76 | 0 | 13 | 26 | 143 | 18 |
| 371 | 1800 | 1000 | 200 | 623 | 0 | 15 | 39 | 525 | 10 |
| 374 | 1752 | 998 | 3190 | 225 | 532 | 18 | 32 | 69 | |
| 393 | 96 | 0 | 0 | 82 | 100 | 31 | | | 13 |

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TABLE J.10

DETAILING OF STUDENT STATIONS BY ROOM-TYPE:
FALL, 1973

| *****NUMBER OF ALLOCATED STUDENT STATIONS*****<*****NASF PER ALLOCATED STUDENT STATION*****> | | | | | | | | | |
|--|-----------------|------------------------------------|----------------|------------------|------------------|-----------------|------------------------------------|----------------|-------------------|
| CLASSROOM (1) | CLASSLAB (2) | RESEARCH AND TRAINING (3) | LIBRARY (4) | AUDITORIA (5) | CLASSROOM (6) | CLASSLAB (7) | RESEARCH AND TRAINING (8) | LIBRARY (9) | AUDITORIA (10) |
| 57750 | 42100 | 16145 | 13737 | 23073 | 17 | 50 | 266 | 84 | 11 |
| 95 | 93 | 95 | 95 | 95 | 85 | 87 | 51 | 66 | 38 |
| 608 | 443 | 170 | 145 | 243 | 21 | 56 | 803 | 115 | 12 |
| 2520 | 1824 | 3190 | 1335 | 1738 | 124 | 227 | 4900 | 1000 | 25 |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 65 | 2 | 4 |
| 393 | 363 | 0 | 170 | 0 | 15 | 66 | | 41 | |
| 0 | 90 | 0 | 0 | 0 | | 67 | | | |
| 952 | 402 | 21 | 491 | 276 | 17 | 37 | 3143 | 61 | 11 |
| 0 | 250 | 138 | 75 | 0 | | 44 | 138 | 67 | |
| 1579 | 368 | 1130 | 188 | 753 | 26 | 158 | 175 | 149 | 9 |
| 340 | 550 | 22 | 499 | 1026 | 124 | 45 | 545 | 62 | 12 |
| 1600 | 192 | 0 | 191 | 1051 | 9 | 120 | | 188 | 11 |
| 8 | 0 | 50 | 15 | 0 | 0 | | 1880 | 133 | |
| 522 | 157 | 0 | 110 | 0 | 27 | 70 | | 118 | |
| 376 | 240 | 0 | 0 | 300 | 13 | 29 | | | 10 |
| 520 | 500 | 0 | 23 | 150 | 31 | 76 | | 1000 | 7 |
| 36 | 25 | 0 | 30 | 0 | 28 | 40 | | 200 | |
| 2010 | 1210 | 400 | 1335 | 0 | 17 | 83 | 515 | 37 | |
| 1225 | 744 | 171 | 300 | 0 | 10 | 66 | 632 | 23 | |
| 619 | 152 | 0 | 200 | 626 | 13 | 86 | | 145 | 11 |
| 1078 | 403 | 355 | 194 | 0 | 25 | 57 | 293 | 129 | |
| 1039 | 418 | 94 | 0 | 0 | 9 | 43 | 1521 | | |
| 154 | 60 | 0 | 120 | 0 | 19 | 100 | | 67 | |
| 40 | 40 | 0 | 40 | 0 | 25 | 75 | | 50 | |
| 0 | 0 | 0 | 24 | 0 | | | | 125 | |
| 75 | 222 | 600 | 108 | 744 | 67 | 149 | 110 | 111 | 13 |
| 1301 | 1130 | 40 | 0 | 180 | 18 | 33 | 4900 | | 11 |
| 0 | 0 | 0 | 0 | 0 | | | | | |
| 305 | 200 | 42 | 40 | 0 | 92 | 65 | 524 | 200 | |
| 445 | 340 | 15 | 210 | 0 | 16 | 29 | 1533 | 24 | |
| 244 | 398 | 72 | 94 | 147 | 12 | 28 | 278 | 85 | 7 |
| 1383 | 943 | 0 | 0 | 0 | 13 | 40 | | | |
| 80 | 943 | 226 | 55 | 0 | 25 | 36 | 588 | 164 | |
| 993 | 352 | 0 | 248 | 0 | 9 | 227 | | 113 | |
| 572 | 624 | 490 | 198 | 0 | 9 | 18 | 290 | 56 | |
| 777 | 591 | 0 | 121 | 0 | 10 | 52 | | 74 | |
| 1800 | 500 | 50 | 700 | 0 | 11 | 42 | 2600 | 67 | |
| 430 | 160 | 214 | 450 | 0 | 23 | 56 | 201 | 2 | |
| 392 | 24 | 99 | 0 | 0 | 28 | 0 | 313 | | |
| 1081 | 788 | 1164 | 0 | 0 | 15 | 51 | 105 | | |
| 850 | 1125 | 128 | 318 | 0 | 13 | 29 | 914 | 28 | |
| 109 | 144 | 252 | 50 | 0 | 18 | 90 | 163 | 180 | |
| 546 | 348 | 0 | 213 | 634 | 15 | 92 | | 108 | 17 |
| 1286 | 756 | 497 | 76 | 0 | 13 | 26 | 143 | 184 | |
| 1800 | 1000 | 200 | 623 | 0 | 15 | 39 | 525 | 100 | |
| 1752 | 998 | 3190 | 225 | 532 | 18 | 32 | 69 | 49 | 11 |
| 96 | 0 | 0 | 82 | 100 | 31 | | | 134 | 20 |

TABLE J.10 (Continued)

DETAILING OF STUDENT STATIONS BY ROOM-TYPE:
FALL, 1973

MEDICINE

(CONTINUED)

<*****NUMBER OF ALLOCATED STUDENT STATIONS*****><*****NASF PER ALLOCATED STUDENT STATION*****>

| | CLASSROOM (1) | CLASSLAB (2) | RESEARCH AND RESEARCH TRAINING (3) | LIBRARY (4) | AUDITORIUM (5) | CLASSROOM (6) | CLASSLAB (7) | RESEARCH AND RESEARCH TRAINING (8) | LIBRARY (9) |
|-----|------------------|-----------------|--|----------------|-------------------|------------------|-----------------|--|----------------|
| 395 | 475 | 421 | 305 | 200 | 280 | 15 | 52 | 193 | 9 |
| 401 | 244 | 192 | 125 | 200 | 350 | 12 | 52 | 544 | 14 |
| 415 | 965 | 468 | 150 | 64 | 750 | 17 | 41 | 820 | 21 |
| 433 | 570 | 1040 | 235 | 185 | 1070 | 23 | 56 | 1106 | 9 |
| 455 | 108 | 0 | 0 | 0 | 0 | 19 | | | |
| 472 | 1154 | 1724 | 0 | 0 | 1738 | 12 | 32 | | |
| 483 | 396 | 224 | 55 | 0 | 0 | 13 | 76 | 400 | |
| 484 | 613 | 288 | 145 | 125 | 417 | 24 | 163 | 228 | 11 |
| 522 | 1012 | 500 | 80 | 290 | 800 | 23 | 30 | 1075 | 7 |
| 531 | 696 | 293 | 0 | 163 | 0 | 11 | 51 | | 17 |
| 543 | 598 | 415 | 470 | 0 | 294 | 22 | 31 | 132 | |
| 562 | 0 | 293 | 0 | 0 | 0 | | 44 | | |
| 563 | 161 | 112 | 0 | 0 | 0 | 19 | 27 | | |
| 574 | 967 | 466 | 0 | 291 | 600 | 12 | 73 | | 0 |
| 575 | 139 | 665 | 310 | 0 | 0 | 14 | 5 | 97 | |
| 583 | 272 | 114 | 194 | 75 | 304 | 26 | 79 | 196 | 22 |
| 602 | 90 | 60 | 20 | 0 | 0 | 22 | 33 | 3750 | |
| 613 | 330 | 340 | 0 | 0 | 0 | 15 | 38 | | |
| 624 | 306 | 322 | 0 | 70 | 0 | 62 | 106 | | 5 |
| 635 | 0 | 589 | 0 | 370 | 0 | | 41 | | 7 |
| 651 | 0 | 0 | 0 | 0 | 0 | | | | |
| 652 | 800 | 576 | 40 | 135 | 600 | 10 | 23 | 1475 | 10 |
| 653 | 220 | 200 | 0 | 0 | 0 | 50 | 190 | | |
| 664 | 115 | 613 | 0 | 263 | 682 | 52 | 59 | | 9 |
| 671 | 294 | 408 | 0 | 300 | 1013 | 37 | 42 | | 12 |
| 672 | 12 | 40 | 0 | 0 | 0 | 0 | 50 | | |
| 683 | 480 | 246 | 36 | 84 | 0 | 19 | 77 | 1111 | 13 |
| 711 | 316 | 348 | 46 | 0 | 0 | 16 | 57 | 65 | |
| 714 | 634 | 378 | 197 | 325 | 442 | 9 | 77 | 305 | 5 |
| 731 | 670 | 1824 | 0 | 0 | 0 | 19 | 24 | | |
| 743 | 2520 | 657 | 0 | 100 | 0 | 12 | 38 | | 12 |
| 744 | 2184 | 631 | 0 | 365 | 855 | 14 | 101 | | 10 |
| 761 | 485 | 520 | 62 | 59 | 475 | 19 | 58 | 565 | 1 |
| 772 | 941 | 581 | 1375 | 60 | 1600 | 22 | 43 | 164 | 6 |
| 774 | 712 | 657 | 0 | 0 | 400 | 11 | 38 | | |
| 783 | 1308 | 461 | 125 | 116 | 350 | 11 | 39 | 1056 | 8 |
| 802 | 510 | 682 | 0 | 0 | 0 | 12 | 45 | | |
| 813 | 90 | 87 | 0 | 60 | 85 | 11 | 92 | | 50 |
| 823 | 1000 | 400 | 0 | 300 | 500 | 14 | 45 | | 6 |
| 831 | 80 | 512 | 0 | 130 | 0 | 12 | 49 | | 38 |
| 863 | 969 | 722 | 48 | 200 | 1144 | 14 | 19 | 1792 | 65 |
| 864 | 1325 | 0 | 0 | 0 | 0 | 3 | 22 | | |
| 872 | 1866 | 364 | 0 | 735 | 694 | 12 | 44 | | 112 |
| 891 | 100 | 84 | 10 | 12 | 0 | 60 | 0 | 1300 | 250 |
| 903 | 753 | 800 | 1504 | 200 | 0 | 11 | 50 | 71 | 25 |
| 904 | 238 | 238 | 146 | 0 | 0 | 17 | 71 | 226 | |
| 921 | 937 | 654 | 0 | 175 | 250 | 18 | 35 | | 91 |
| 951 | 101 | 321 | 68 | 15 | 0 | 20 | 106 | 1221 | 133 |
| 952 | 0 | 0 | 0 | 0 | 0 | | | | |
| 953 | 138 | 1431 | 644 | 202 | 861 | 43 | 42 | 141 | 149 |
| 954 | 0 | 0 | 0 | 0 | 0 | | | | |
| 962 | 48 | 48 | 48 | 52 | 0 | 21 | 62 | 167 | 58 |
| 973 | 0 | 601 | 47 | 0 | 0 | | 62 | 638 | |

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TABLE J.10 (Continued)

DETAILING OF STUDENT STATIONS BY ROOM-TYPE:
FALL, 1973

(CONTINUED)

| <*****NUMBER OF ALLOCATED STUDENT STATIONS*****> | | | | | <*****NASF PER ALLOCATED STUDENT STATION*****> | | | | |
|--|-----------------|--|----------------|-------------------|--|-----------------|--|----------------|--------------------|
| CLASSROOM (1) | CLASSLAB (2) | RESEARCH AND RESEARCH TRAINING (3) | LIBRARY (4) | AUDITORIUM (5) | CLASSROOM (6) | CLASSLAB (7) | RESEARCH AND RESEARCH TRAINING (8) | LIBRARY (9) | AUDITORIUM (10) |
| 475 | 421 | 305 | 200 | 280 | 15 | 52 | 193 | 95 | 25 |
| 244 | 192 | 125 | 200 | 350 | 12 | 52 | 544 | 140 | 17 |
| 965 | 468 | 150 | 64 | 750 | 17 | 41 | 820 | 219 | 9 |
| 570 | 1040 | 235 | 185 | 1070 | 23 | 56 | 1106 | 97 | 10 |
| 108 | 0 | 0 | 0 | 0 | 19 | | | | |
| 1154 | 1724 | 0 | 0 | 1738 | 12 | 32 | | | 9 |
| 396 | 224 | 55 | 0 | 0 | 13 | 76 | 400 | | |
| 613 | 288 | 145 | 125 | 417 | 24 | 163 | 228 | 112 | 10 |
| 1012 | 500 | 80 | 290 | 800 | 23 | 30 | 1075 | 76 | 7 |
| 696 | 293 | 0 | 163 | 0 | 11 | 51 | | 178 | |
| 598 | 415 | 470 | 0 | 294 | 22 | 31 | 132 | | 10 |
| 0 | 293 | 0 | 0 | 0 | | 44 | | | |
| 161 | 112 | 0 | 0 | 0 | 19 | 27 | | | |
| 967 | 466 | 0 | 291 | 600 | 12 | 73 | | 86 | 17 |
| 139 | 665 | 310 | 0 | 0 | 14 | 5 | 97 | | |
| 272 | 114 | 194 | 75 | 304 | 26 | 79 | 196 | 227 | 10 |
| 90 | 60 | 20 | 0 | 0 | 22 | 33 | 3750 | | |
| 330 | 340 | 0 | 0 | 0 | 15 | 38 | | | |
| 306 | 322 | 0 | 70 | 0 | 62 | 106 | | 57 | |
| 0 | 589 | 0 | 370 | 0 | | 41 | | 76 | |
| 0 | 0 | 0 | 0 | 0 | | | | | |
| 800 | 576 | 40 | 135 | 600 | 10 | 23 | 1475 | 104 | 13 |
| 220 | 200 | 0 | 0 | 0 | 50 | 190 | | | |
| 115 | 613 | 0 | 263 | 682 | 52 | 59 | | 95 | 16 |
| 294 | 408 | 0 | 300 | 1013 | 37 | 42 | | 120 | 11 |
| 12 | 40 | 0 | 0 | 0 | 0 | 50 | | | |
| 480 | 246 | 36 | 84 | 0 | 19 | 77 | 1111 | 131 | |
| 316 | 348 | 46 | 0 | 0 | 16 | 57 | 65 | | |
| 634 | 378 | 197 | 325 | 442 | 9 | 77 | 305 | 55 | 18 |
| 670 | 1824 | 0 | 0 | 0 | 19 | 24 | | | |
| 2520 | 657 | 0 | 100 | 0 | 12 | 38 | | 120 | |
| 2184 | 631 | 0 | 365 | 855 | 14 | 101 | | 101 | 14 |
| 485 | 520 | 62 | 59 | 475 | 19 | 58 | 565 | 17 | 8 |
| 941 | 581 | 1375 | 60 | 1600 | 22 | 43 | 164 | 67 | 16 |
| 712 | 657 | 0 | 0 | 400 | 11 | 38 | | | 5 |
| 1308 | 461 | 125 | 116 | 350 | 11 | 39 | 1056 | 86 | 6 |
| 510 | 682 | 0 | 0 | 0 | 12 | 45 | | | |
| 90 | 87 | 0 | 60 | 85 | 11 | 92 | | 50 | 12 |
| 1000 | 400 | 0 | 300 | 500 | 14 | 45 | | 67 | 4 |
| 80 | 512 | 0 | 130 | 0 | 12 | 49 | | 38 | |
| 969 | 722 | 48 | 200 | 1144 | 14 | 19 | 1792 | 65 | 5 |
| 1325 | 760 | 0 | 0 | 0 | 3 | 22 | | | |
| 1866 | 364 | 0 | 735 | 694 | 12 | 44 | | | |
| 100 | 84 | 10 | 12 | 0 | 60 | 0 | 1300 | 112 | 12 |
| 753 | 800 | 1504 | 200 | 0 | 11 | 50 | 71 | 250 | |
| 238 | 238 | 146 | 0 | 0 | 17 | 71 | 226 | 25 | |
| 937 | 654 | 0 | 175 | 250 | 18 | 35 | | 91 | 12 |
| 101 | 321 | 68 | 15 | 0 | 20 | 106 | 1221 | 133 | |
| 0 | 0 | 0 | 0 | 0 | | | | | |
| 138 | 1431 | 644 | 202 | 861 | 43 | 42 | 141 | 149 | 13 |
| 0 | 0 | 0 | 0 | 0 | | | | | |
| 48 | 48 | 48 | 52 | 0 | 21 | 62 | 167 | 58 | |
| 0 | 601 | 47 | 0 | 0 | | 62 | 638 | | |

TABLE J.10 (Continued)

DETAILING OF STUDENT STATIONS BY ROOM-TYPE:
FALL, 1973

MEDICINE

(CONTINUED)

| <*****NUMBER OF ALLOCATED STUDENT STATIONS*****> | | | | | <*****NASF PER ALLOCATED STUDENT STATION*****> | | | | |
|--|----------|---|---------|------------|--|----------|---|---------|--|
| CLASSROOM | CLASSLAB | RESEARCH AND RESEARCH TRAINING | LIBRARY | AUDITORIUM | CLASSROOM | CLASSLAB | RESEARCH AND RESEARCH TRAINING | LIBRARY | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | |
| SCHOOLS FOR WHICH | | | | | 23 | 91 | 22 | 23 | |
| VALUES ARE UNDEFINED | | | | | 25 | 172 | 23 | 95 | |
| | | | | | 172 | 212 | 74 | 145 | |
| | | | | | 212 | 393 | 94 | 203 | |
| | | | | | 562 | 455 | 95 | 212 | |
| | | | | | 635 | 651 | 112 | 241 | |
| | | | | | 651 | 952 | 121 | 315 | |
| | | | | | 952 | 954 | 141 | 324 | |
| | | | | | 954 | | 152 | 455 | |
| | | | | | 973 | | 153 | 472 | |
| | | | | | | | 172 | 483 | |
| | | | | | | | 212 | 543 | |
| | | | | | | | 241 | 562 | |
| | | | | | | | 254 | 563 | |
| | | | | | | | 283 | 575 | |
| | | | | | | | 345 | 602 | |
| | | | | | | | 393 | 613 | |
| | | | | | | | 455 | 651 | |
| | | | | | | | 472 | 653 | |
| | | | | | | | 531 | 672 | |
| | | | | | | | 562 | 711 | |
| | | | | | | | 563 | 731 | |
| | | | | | | | 574 | 774 | |
| | | | | | | | 613 | 802 | |
| | | | | | | | 624 | 864 | |
| | | | | | | | 635 | 904 | |
| | | | | | | | 651 | 952 | |
| | | | | | | | 653 | 954 | |
| | | | | | | | 664 | 973 | |
| | | | | | | | 671 | | |
| | | | | | | | 672 | | |
| | | | | | | | 731 | | |
| | | | | | | | 743 | | |
| | | | | | | | 744 | | |
| | | | | | | | 774 | | |
| | | | | | | | 802 | | |
| | | | | | | | 813 | | |
| | | | | | | | 823 | | |
| | | | | | | | 831 | | |
| | | | | | | | 864 | | |
| | | | | | | | 872 | | |
| | | | | | | | 921 | | |
| | | | | | | | 952 | | |
| | | | | | | | 954 | | |

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TABLE J.10 (Continued)

DETAILING OF STUDENT STATIONS BY ROOM-TYPE
FALL, 1973

(CONTINUED)

| <*****NUMBER OF ALLOCATED STUDENT STATIONS*****> | | | | | <*****NASF PER ALLOCATED STUDENT STATION*****> | | | | |
|--|-----------------|--|----------------|------------------|--|-----------------|--|----------------|-------------------|
| CLASSROOM (1) | CLASSLAB (2) | RESEARCH AND RESEARCH TRAINING (3) | LIBRARY (4) | AUDITORIA (5) | CLASSROOM (6) | CLASSLAB (7) | RESEARCH AND RESEARCH TRAINING (8) | LIBRARY (9) | AUDITORIA (10) |
| | | | | | 23 | 91 | 22 | 23 | 22 |
| | | | | | 25 | 172 | 23 | 95 | 23 |
| | | | | | 172 | 212 | 74 | 145 | 25 |
| | | | | | 212 | 393 | 94 | 203 | 91 |
| | | | | | 562 | 455 | 95 | 212 | 94 |
| | | | | | 635 | 651 | 112 | 241 | 121 |
| | | | | | 651 | 952 | 121 | 315 | 133 |
| | | | | | 952 | 954 | 141 | 324 | 134 |
| | | | | | 954 | | 152 | 455 | 142 |
| | | | | | 973 | | 153 | 472 | 145 |
| | | | | | | | 172 | 483 | 152 |
| | | | | | | | 212 | 543 | 153 |
| | | | | | | | 241 | 562 | 172 |
| | | | | | | | 254 | 563 | 212 |
| | | | | | | | 283 | 575 | 215 |
| | | | | | | | 345 | 602 | 222 |
| | | | | | | | 393 | 613 | 241 |
| | | | | | | | 455 | 651 | 252 |
| | | | | | | | 472 | 653 | 254 |
| | | | | | | | 531 | 672 | 275 |
| | | | | | | | 562 | 711 | 283 |
| | | | | | | | 563 | 731 | 295 |
| | | | | | | | 574 | 774 | 311 |
| | | | | | | | 613 | 802 | 315 |
| | | | | | | | 624 | 864 | 324 |
| | | | | | | | 635 | 904 | 333 |
| | | | | | | | 651 | 952 | 341 |
| | | | | | | | 653 | 954 | 362 |
| | | | | | | | 664 | 973 | 371 |
| | | | | | | | 671 | | 455 |
| | | | | | | | 672 | | 483 |
| | | | | | | | 731 | | 531 |
| | | | | | | | 743 | | 562 |
| | | | | | | | 744 | | 563 |
| | | | | | | | 774 | | 575 |
| | | | | | | | 802 | | 602 |
| | | | | | | | 813 | | 613 |
| | | | | | | | 823 | | 624 |
| | | | | | | | 831 | | 635 |
| | | | | | | | 864 | | 651 |
| | | | | | | | 872 | | 653 |
| | | | | | | | 921 | | 672 |
| | | | | | | | 952 | | 683 |
| | | | | | | | 954 | | 711 |
| | | | | | | | | | 731 |
| | | | | | | | | | 743 |
| | | | | | | | | | 802 |
| | | | | | | | | | 831 |
| | | | | | | | | | 864 |
| | | | | | | | | | 891 |
| | | | | | | | | | 903 |
| | | | | | | | | | 904 |
| | | | | | | | | | 951 |
| | | | | | | | | | 952 |
| | | | | | | | | | 954 |
| | | | | | | | | | 962 |
| | | | | | | | | | 973 |

TABLE J.11

DETAILING OF STUDENT STATIONS BY ROOM-TYPE:
FALL, 1973

OPTOMETRY

| | NUMBER OF ALLOCATED STUDENT STATIONS | | | | | NASF PER ALLOCATED STUDENT STATION | | | |
|---|--------------------------------------|-----------------|------------------------------------|----------------|-------------------|------------------------------------|-----------------|------------------------------------|----------------|
| | CLASSROOM (1) | CLASSLAB (2) | RESEARCH AND TRAINING (3) | LIBRARY (4) | AUDITORIUM (5) | CLASSROOM (6) | CLASSLAB (7) | RESEARCH AND TRAINING (8) | LIBRARY (9) |
| TOTAL | 2614 | 1486 | 269 | 519 | 300 | 14 | 51 | 115 | |
| NUMBER OF SCHOOLS | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 9 | |
| MEAN | 261 | 149 | 27 | 52 | 30 | 13 | 56 | 229 | |
| HIGH | 595 | 400 | 110 | 108 | 300 | 17 | 91 | 500 | |
| LOW | 15 | 44 | 0 | 0 | 0 | 0 | 28 | 36 | |
| 065 | 580 | 240 | 25 | 100 | 0 | 12 | 46 | 160 | |
| 072 | 595 | 316 | 110 | 44 | 300 | 15 | 28 | 36 | |
| 101 | 60 | 60 | 0 | 0 | 0 | 17 | 50 | | |
| 111 | 315 | 122 | 44 | 96 | 0 | 13 | 82 | 91 | |
| 223 | 15 | 81 | 23 | 22 | 0 | 0 | 37 | 87 | |
| 335 | 80 | 52 | 36 | 35 | 0 | 12 | 58 | 139 | |
| 461 | 133 | 44 | 8 | 24 | 0 | 15 | 91 | 500 | |
| 534 | 416 | 400 | 5 | 108 | 0 | 17 | 62 | 400 | |
| 634 | 260 | 70 | 8 | 40 | 0 | 15 | 71 | 250 | |
| 892 | 160 | 101 | 10 | 50 | 0 | 12 | 30 | 400 | |
| 933 | | | | | | | | | |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | | | | | | | | 101 | 1 |

TABLE J.11

DETAILING OF STUDENT STATIONS BY ROOM-TYPE/
FALL, 1973

| *****NUMBER OF ALLOCATED STUDENT STATIONS*****<*****NASF PER ALLOCATED STUDENT STATION*****> | | | | | | | | | |
|--|-----------------|--|----------------|------------------|------------------|-----------------|--|----------------|-------------------|
| CLASSROOM (1) | CLASSLAB (2) | RESEARCH AND RESEARCH TRAINING (3) | LIBRARY (4) | AUDITORIA (5) | CLASSROOM (6) | CLASSLAB (7) | RESEARCH AND RESEARCH TRAINING (8) | LIBRARY (9) | AUDITORIA (10) |
| 2614 | 1486 | 269 | 519 | 300 | 14 | 51 | 115 | 56 | 13 |
| 10 | 10 | 10 | 10 | 10 | 10 | 10 | 9 | 9 | 1 |
| 261 | 149 | 27 | 52 | 30 | 13 | 56 | 229 | 56 | 13 |
| 595 | 400 | 110 | 108 | 300 | 17 | 91 | 500 | 91 | 13 |
| 15 | 44 | 0 | 0 | 0 | 0 | 28 | 36 | 29 | 13 |
| 580 | 240 | 25 | 100 | 0 | 12 | 46 | 160 | 60 | |
| 595 | 316 | 110 | 44 | 300 | 15 | 28 | 36 | 91 | 13 |
| 60 | 60 | 0 | 0 | 0 | 17 | 50 | | | |
| 315 | 122 | 44 | 96 | 0 | 13 | 82 | 91 | 62 | |
| 15 | 81 | 23 | 22 | 0 | 0 | 37 | 87 | 45 | |
| 80 | 52 | 36 | 35 | 0 | 12 | 58 | 139 | 29 | |
| 133 | 44 | 8 | 24 | 0 | 15 | 91 | 500 | 42 | |
| 416 | 400 | 5 | 108 | 0 | 17 | 62 | 400 | 37 | |
| 260 | 70 | 8 | 40 | 0 | 15 | 71 | 250 | 75 | |
| 160 | 101 | 10 | 50 | 0 | 12 | 30 | 400 | 60 | |
| | | | | | | | 101 | 101 | 65 |
| | | | | | | | | | 101 |
| | | | | | | | | | 211 |
| | | | | | | | | | 235 |
| | | | | | | | | | 261 |
| | | | | | | | | | 334 |
| | | | | | | | | | 634 |
| | | | | | | | | | 892 |
| | | | | | | | | | 933 |

TABLE J.12

DETAILING OF STUDENT STATIONS BY ROOM-TYPE:
FALL, 1973

OSTEOPATHY

| | <*****NUMBER OF ALLOCATED STUDENT STATIONS*****> | | | | | <*****NASF PER ALLOCATED STUDENT STATION*****> | | | |
|--|--|----------|---|---------|-----------|--|----------|---|---------|
| | CLASSROOM | CLASSLAB | RESEARCH AND RESEARCH TRAINING | LIBRARY | AUDITORIA | CLASSROOM | CLASSLAB | RESEARCH AND RESEARCH TRAINING | LIBRARY |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| TOTAL | 1673 | 1378 | 180 | 333 | 686 | 16 | 34 | 106 | 66 |
| NUMBER OF SCHOOLS | 5 | 5 | 5 | 5 | 5 | 4 | 5 | 4 | 5 |
| MEAN | 335 | 276 | 36 | 67 | 137 | 16 | 38 | 339 | 68 |
| HIGH | 703 | 620 | 100 | 132 | 500 | 18 | 57 | 1000 | 86 |
| LOW | 0 | 88 | 0 | 35 | 0 | 14 | 30 | 30 | 29 |
| 033 | 0 | 88 | 64 | 68 | 0 | | 57 | 125 | 29 |
| 062 | 260 | 250 | 6 | 35 | 186 | 15 | 32 | 1000 | 86 |
| 293 | 260 | 268 | 10 | 63 | 0 | 15 | 30 | 200 | 63 |
| 303 | 703 | 620 | 0 | 35 | 0 | 14 | 32 | | 86 |
| 402 | 450 | 152 | 100 | 132 | 500 | 18 | 39 | 30 | 76 |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED. | | | | | | 33 | | 303 | |

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TABLE J.12

DETAILING OF STUDENT STATIONS BY ROOM-TYPE:
FALL, 1973

| *****NUMBER OF ALLOCATED STUDENT STATIONS*****> | | | | | <*****NASF PER ALLOCATED STUDENT STATION***** | | | | |
|---|----------|---|---------|-----------|---|----------|---|---------|-----------|
| CLASSROOM | CLASSLAB | RESEARCH AND RESEARCH TRAINING | LIBRARY | AUDITORIA | CLASSROOM | CLASSLAB | RESEARCH AND RESEARCH TRAINING | LIBRARY | AUDITORIA |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 1673 | 1370 | 180 | 333 | 086 | 16 | 34 | 106 | 66 | 10 |
| 5 | 5 | 5 | 5 | 5 | 4 | 5 | 4 | 5 | 2 |
| 335 | 276 | 36 | 67 | 137 | 16 | 38 | 339 | 68 | 12 |
| 703 | 620 | 100 | 132 | 500 | 18 | 57 | 1000 | 86 | 16 |
| 0 | 88 | 0 | 35 | 0 | 14 | 30 | 30 | 29 | 8 |
| 0 | 88 | 64 | 68 | 0 | | 57 | 125 | 29 | |
| 260 | 250 | 6 | 35 | 186 | 15 | 32 | 1000 | 86 | 16 |
| 260 | 268 | 10 | 63 | 0 | 15 | 30 | 200 | 63 | |
| 703 | 620 | 0 | 35 | 0 | 14 | 32 | | 86 | |
| 450 | 152 | 100 | 132 | 500 | 18 | 39 | 30 | 76 | 8 |
| | | | | | 33 | | 303 | | 33 |
| | | | | | | | | | 293 |
| | | | | | | | | | 303 |

TABLE J.13

DETAILING OF STUDENT STATIONS BY ROOM-TYPE:
FALL, 1973

PHARMACY

| | <.....NUMBER OF ALLOCATED STUDENT STATIONS.....> | | | | | <.....NASF PER ALLOCATED STUDENT STATION.....> | | | |
|-------------------|--|-----------------|------------------------------------|----------------|------------------|--|-----------------|------------------------------------|----------------|
| | CLASSROOM (1) | CLASSLAB (2) | RESEARCH AND TRAINING (3) | LIBRARY (4) | AUDITORIA (5) | CLASSROOM (6) | CLASSLAB (7) | RESEARCH AND TRAINING (8) | LIBRARY (9) |
| TOTAL | 12949 | 17518 | 3114 | 2421 | 9799 | 14 | 42 | 161 | 41 |
| NUMBER OF SCHOOLS | 64 | 64 | 64 | 64 | 64 | 48 | 63 | 56 | 37 |
| MEAN | 202 | 274 | 49 | 38 | 91 | 15 | 49 | 285 | 34 |
| HIGH | 1136 | 1081 | 665 | 245 | 1520 | 36 | 144 | 5000 | 83 |
| LOW | 0 | 0 | 0 | 0 | 0 | 0 | 11 | 20 | 0 |
| 005 | 0 | 199 | 45 | 0 | 0 | | 45 | 67 | |
| 011 | 130 | 117 | 36 | 0 | 0 | 31 | 77 | 194 | |
| 041 | 160 | 188 | 0 | 0 | 0 | 12 | 48 | | |
| 052 | 237 | 185 | 12 | 20 | 0 | 17 | 65 | 167 | 0 |
| 105 | 116 | 131 | 25 | 0 | 150 | 17 | 38 | 520 | |
| 143 | 182 | 132 | 24 | 8 | 0 | 11 | 53 | 208 | 0 |
| 144 | 398 | 394 | 33 | 89 | 237 | 13 | 69 | 121 | 45 |
| 151 | 0 | 72 | 21 | 0 | 0 | | 56 | 190 | |
| 181 | 70 | 128 | 16 | 0 | 0 | 14 | 39 | 125 | |
| 195 | 109 | 187 | 0 | 28 | 179 | 18 | 59 | | 36 |
| 204 | 845 | 563 | 35 | 32 | 0 | 11 | 18 | 143 | 31 |
| 213 | 0 | 176 | 51 | 60 | 0 | | 34 | 314 | 33 |
| 245 | 0 | 220 | 22 | 64 | 0 | | 50 | 318 | 31 |
| 262 | 0 | 647 | 75 | 0 | 0 | | 68 | 640 | |
| 263 | 160 | 216 | 88 | 45 | 0 | 12 | 42 | 250 | 22 |
| 265 | 0 | 231 | 18 | 84 | 0 | | 61 | 444 | 36 |
| 294 | 260 | 624 | 30 | 20 | 0 | 8 | 16 | 100 | 0 |
| 313 | 514 | 378 | 25 | 116 | 300 | 12 | 42 | 80 | 43 |
| 344 | 82 | 205 | 124 | 120 | 0 | 12 | 63 | 185 | 33 |
| 375 | 180 | 244 | 135 | 0 | 360 | 17 | 41 | 89 | |
| 382 | 353 | 266 | 200 | 130 | 0 | 14 | 83 | 155 | 38 |
| 384 | 0 | 114 | 40 | 75 | 0 | | 44 | 125 | 27 |
| 403 | 0 | 220 | 17 | 0 | 0 | | 45 | 176 | |
| 404 | 0 | 208 | 12 | 48 | 0 | | 43 | 333 | 21 |
| 422 | 156 | 96 | 4 | 22 | 0 | 13 | 52 | 250 | 45 |
| 453 | 0 | 108 | 44 | 0 | 0 | | 46 | 68 | |
| 454 | 230 | 98 | 15 | 36 | 0 | 13 | 41 | 333 | 56 |
| 461 | 970 | 472 | 76 | 125 | 480 | 6 | 28 | 105 | 40 |
| 465 | 375 | 348 | 25 | 0 | 0 | 13 | 32 | 360 | |
| 482 | 200 | 200 | 100 | 100 | 400 | 15 | 55 | 250 | 30 |
| 463 | 0 | 0 | 0 | 0 | 0 | | | | |
| 511 | 0 | 660 | 24 | 0 | 0 | | 23 | 167 | |
| 514 | 303 | 279 | 28 | 13 | 0 | 17 | 47 | 71 | 0 |
| 523 | 199 | 96 | 0 | 0 | 0 | 10 | 52 | | |
| 532 | 180 | 300 | 75 | 50 | 0 | 11 | 17 | 293 | 20 |
| 535 | 28 | 364 | 17 | 8 | 0 | 36 | 16 | 412 | 0 |
| 571 | 50 | 129 | 8 | 0 | 0 | 0 | 39 | 250 | |
| 572 | 258 | 197 | 19 | 34 | 0 | 16 | 51 | 579 | 29 |
| 585 | 30 | 336 | 18 | 0 | 0 | 33 | 39 | 167 | |
| 594 | 30 | 231 | 25 | 0 | 0 | 33 | 61 | 200 | |
| 621 | 317 | 507 | 60 | 90 | 0 | 13 | 16 | 267 | 33 |
| 645 | 12 | 170 | 0 | 54 | 0 | 0 | 82 | | 56 |

TABLE J.13

DETAILING OF STUDENT STATIONS BY ROOM-TYPE:
FALL, 1973

| *****NUMBER OF ALLOCATED STUDENT STATIONS***** | | | | | *****NASF PER ALLOCATED STUDENT STATION***** | | | | |
|--|-----------------|------|----------------|-------------------|--|-----------------|------|----------------|--------------------|
| RESEARCH AND RESEARCH TRAINING | | | | | RESEARCH AND RESEARCH TRAINING | | | | |
| CLASSROOM (1) | CLASSLAB (2) | (3) | LIBRARY (4) | AUDITORIUM (5) | CLASSROOM (6) | CLASSLAB (7) | (8) | LIBRARY (9) | AUDITORIUM (10) |
| 12949 | 17518 | 3114 | 2421 | 5799 | 14 | 42 | 161 | 41 | 10 |
| 64 | 64 | 64 | 64 | 64 | 48 | 63 | 56 | 37 | 15 |
| 202 | 274 | 49 | 38 | 91 | 15 | 49 | 285 | 34 | 10 |
| 1136 | 1081 | 665 | 245 | 1520 | 36 | 144 | 5000 | 83 | 21 |
| 0 | 0 | 0 | 0 | 0 | 0 | 11 | 20 | 0 | 6 |
| 0 | 199 | 45 | 0 | 0 | | 45 | 67 | | |
| 130 | 117 | 36 | 0 | 0 | 31 | 77 | 194 | | |
| 160 | 188 | 0 | 0 | 0 | 12 | 48 | | | |
| 237 | 185 | 12 | 20 | 0 | 17 | 65 | 167 | 0 | |
| 116 | 131 | 25 | 0 | 150 | 17 | 38 | 520 | | 13 |
| 182 | 132 | 24 | 8 | 0 | 11 | 53 | 208 | 0 | |
| 396 | 394 | 33 | 89 | 237 | 13 | 69 | 121 | 45 | 8 |
| 0 | 72 | 21 | 0 | 0 | | 56 | 190 | | |
| 70 | 128 | 16 | 0 | 0 | 14 | 39 | 125 | | |
| 109 | 187 | 0 | 28 | 179 | 18 | 59 | | 36 | 6 |
| 845 | 563 | 35 | 32 | 0 | 11 | 18 | 143 | 31 | |
| 0 | 176 | 51 | 60 | 0 | | 34 | 314 | 33 | |
| 0 | 220 | 22 | 64 | 0 | | 50 | 318 | 31 | |
| 0 | 647 | 75 | 0 | 0 | | 68 | 640 | | |
| 160 | 216 | 88 | 45 | 0 | 12 | 42 | 250 | 22 | |
| 0 | 231 | 18 | 84 | 0 | | 61 | 444 | 36 | |
| 260 | 624 | 30 | 20 | 0 | 8 | 16 | 100 | 0 | |
| 514 | 378 | 25 | 116 | 300 | 12 | 42 | 80 | 43 | 10 |
| 82 | 205 | 124 | 120 | 0 | 12 | 63 | 185 | 33 | |
| 180 | 244 | 135 | 0 | 360 | 17 | 41 | 89 | | 8 |
| 353 | 266 | 200 | 130 | 0 | 14 | 83 | 155 | 38 | |
| 0 | 114 | 40 | 75 | 0 | | 44 | 125 | 27 | |
| 0 | 220 | 17 | 0 | 0 | | 45 | 176 | | |
| 0 | 208 | 12 | 48 | 0 | | 43 | 333 | 21 | |
| 156 | 96 | 4 | 22 | 0 | 13 | 52 | 250 | 45 | |
| 0 | 108 | 44 | 0 | 0 | | 46 | 68 | | |
| 230 | 98 | 15 | 36 | 0 | 13 | 41 | 333 | 56 | |
| 970 | 472 | 76 | 125 | 480 | 6 | 28 | 105 | 40 | 6 |
| 375 | 348 | 25 | 0 | 0 | 13 | 32 | 360 | | |
| 200 | 200 | 100 | 100 | 400 | 15 | 55 | 250 | 30 | 7 |
| 0 | 0 | 0 | 0 | 0 | | | | | |
| 0 | 660 | 24 | 0 | 0 | | 23 | 167 | | |
| 303 | 279 | 28 | 15 | 0 | 17 | 47 | 71 | 0 | |
| 199 | 96 | 0 | 0 | 0 | 10 | 52 | | | |
| 180 | 300 | 75 | 50 | 0 | 11 | 17 | 293 | 20 | |
| 28 | 364 | 17 | 8 | 0 | 36 | 16 | 412 | 0 | |
| 50 | 129 | 8 | 0 | 0 | 0 | 39 | 250 | | |
| 258 | 197 | 19 | 34 | 0 | 16 | 51 | 579 | 29 | |
| 30 | 336 | 18 | 0 | 0 | 33 | 39 | 167 | | |
| 30 | 231 | 25 | 0 | 0 | 33 | 61 | 200 | | |
| 317 | 507 | 60 | 90 | 0 | 13 | 16 | 267 | 33 | |
| 12 | 170 | 0 | 54 | 0 | 0 | 82 | | 56 | |

TABLE J.13 (Continued)

DETAILING OF STUDENT STATIONS BY ROOM-TYPE:
FALL, 1973

PHARMACY

(CONTINUED)

| <*****NUMBER OF ALLOCATED STUDENT STATIONS*****> | | | | | <*****NASF PER ALLOCATED STUDENT STATION*****> | | | | |
|--|----------|---|---------|------------|--|----------|---|---------|----|
| CLASSROOM | CLASSLAB | RESEARCH AND RESEARCH TRAINING | LIBRARY | AUDITORIUM | CLASSROOM | CLASSLAB | RESEARCH AND RESEARCH TRAINING | LIBRARY | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | |
| 663 | 306 | 320 | 105 | 0 | 0 | 13 | 34 | 95 | |
| 665 | 240 | 190 | 0 | 34 | 0 | 17 | 74 | | 29 |
| 684 | 1136 | 773 | 98 | 245 | 1520 | 15 | 48 | 194 | 82 |
| 692 | 739 | 340 | 69 | 0 | 0 | 12 | 76 | 87 | |
| 693 | 70 | 42 | 0 | 12 | 0 | 14 | 71 | | 83 |
| 703 | 198 | 350 | 20 | 142 | 670 | 15 | 57 | 200 | 14 |
| 724 | 150 | 300 | 35 | 0 | 0 | 7 | 43 | 229 | |
| 742 | 210 | 212 | 16 | 50 | 226 | 19 | 42 | 125 | 40 |
| 753 | 288 | 330 | 26 | 60 | 350 | 14 | 36 | 115 | 33 |
| 801 | 135 | 205 | 20 | 60 | 146 | 15 | 93 | 50 | 63 |
| 812 | 344 | 165 | 106 | 0 | 0 | 20 | 67 | 170 | |
| 824 | 0 | 112 | 0 | 0 | 0 | | 80 | | |
| 841 | 125 | 90 | 1 | 0 | 0 | 16 | 144 | 5000 | |
| 874 | 159 | 819 | 50 | 84 | 128 | 13 | 11 | 20 | 24 |
| 883 | 0 | 274 | 12 | 0 | 0 | | 33 | 83 | |
| 902 | 842 | 1081 | 46 | 120 | 0 | 10 | 29 | 43 | 67 |
| 922 | 0 | 131 | 35 | 0 | 0 | | 53 | 200 | |
| 923 | 0 | 112 | 665 | 0 | 0 | | 36 | 45 | |
| 971 | 295 | 184 | 14 | 87 | 0 | 14 | 43 | 143 | 46 |
| 982 | 128 | 266 | 18 | 0 | 341 | 23 | 75 | 111 | |
| 984 | 189 | 360 | 17 | 6 | 0 | 16 | 17 | 176 | 0 |
| 991 | 261 | 226 | 139 | 48 | 312 | 19 | 35 | 173 | 42 |

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TABLE J.13 (Continued)

DETAILING OF STUDENT STATIONS BY ROOM-TYPE:
FALL, 1973

(CONTINUED)

| NUMBER OF ALLOCATED STUDENT STATIONS | | | | | NASF PER ALLOCATED STUDENT STATION | | | | |
|--------------------------------------|-----------------|--|----------------|------------------|------------------------------------|-----------------|--|----------------|-------------------|
| CLASSROOM (1) | CLASSLAB (2) | RESEARCH AND RESEARCH TRAINING (3) | LIBRARY (4) | AUDITORIA (5) | CLASSROOM (6) | CLASSLAB (7) | RESEARCH AND RESEARCH TRAINING (8) | LIBRARY (9) | AUDITORIA (10) |
| 306 | 320 | 105 | 0 | 0 | 13 | 34 | 95 | | |
| 240 | 190 | 0 | 34 | 0 | 17 | 74 | | | |
| 1136 | 773 | 98 | 245 | 1520 | 15 | 48 | 194 | 29 | |
| 739 | 340 | 69 | 0 | 0 | 12 | 76 | 87 | 82 | 10 |
| 70 | 42 | 0 | 12 | 0 | 14 | 71 | | 83 | |
| 198 | 350 | 20 | 142 | 670 | 15 | 57 | 200 | 14 | 9 |
| 150 | 300 | 35 | 0 | 0 | 7 | 43 | 229 | | |
| 210 | 212 | 16 | 50 | 226 | 19 | 42 | 125 | 40 | 13 |
| 288 | 330 | 26 | 60 | 350 | 14 | 36 | 115 | 33 | 11 |
| 135 | 205 | 20 | 60 | 146 | 15 | 93 | 50 | 83 | 21 |
| 344 | 165 | 106 | 0 | 0 | 20 | 67 | 170 | | |
| 0 | 112 | 0 | 0 | 0 | | 80 | | | |
| 125 | 90 | 1 | 0 | 0 | 16 | 144 | 5000 | | |
| 159 | 819 | 50 | 84 | 128 | 13 | 11 | 20 | 24 | 8 |
| 0 | 274 | 12 | 0 | 0 | | 33 | 83 | | |
| 842 | 1081 | 46 | 120 | 0 | 18 | 25 | 43 | 67 | |
| 0 | 131 | 35 | 0 | 0 | | 53 | 200 | | |
| 0 | 112 | 665 | 0 | 0 | | 36 | 45 | | |
| 295 | 184 | 14 | 87 | 0 | 14 | 43 | 143 | 46 | |
| 128 | 266 | 18 | 0 | 341 | 23 | 75 | 111 | | 9 |
| 189 | 360 | 17 | 6 | 0 | 16 | 17 | 176 | 0 | |
| 261 | 226 | 139 | 48 | 312 | 19 | 35 | 173 | 42 | 13 |

TABLE J.13 (Continued)

DETAILING OF STUDENT STATIONS BY ROOM-TYPE:
FALL, 1973

PHARMACY

(CONTINUED)

| <*****NUMBER OF ALLOCATED STUDENT STATIONS*****> | | | | | <*****NASF PER ALLOCATED STUDENT STATION*****> | | | | |
|--|-----------------|--|----------------|------------------|--|-----------------|--|----------------|--|
| CLASSROOM (1) | CLASSLAB (2) | RESEARCH AND RESEARCH TRAINING (3) | LIBRARY (4) | AUDITORIA (5) | CLASSROOM (6) | CLASSLAB (7) | RESEARCH AND RESEARCH TRAINING (8) | LIBRARY (9) | |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | | | | | 5 | 493 | 41 | 5 | |
| | | | | | 151 | | 195 | 11 | |
| | | | | | 213 | | 493 | 41 | |
| | | | | | 245 | | 523 | 105 | |
| | | | | | 262 | | 645 | 151 | |
| | | | | | 265 | | 665 | 181 | |
| | | | | | 384 | | 693 | 262 | |
| | | | | | 403 | | 824 | 375 | |
| | | | | | 404 | | | 403 | |
| | | | | | 453 | | | 453 | |
| | | | | | 493 | | | 465 | |
| | | | | | 511 | | | 493 | |
| | | | | | 824 | | | 511 | |
| | | | | | 883 | | | 523 | |
| | | | | | 922 | | | 571 | |
| | | | | | 923 | | | 585 | |
| | | | | | | | | 594 | |
| | | | | | | | | 663 | |
| | | | | | | | | 692 | |
| | | | | | | | | 724 | |
| | | | | | | | | 812 | |
| | | | | | | | | 824 | |
| | | | | | | | | 841 | |
| | | | | | | | | 883 | |
| | | | | | | | | 922 | |
| | | | | | | | | 923 | |
| | | | | | | | | 982 | |

TABLE J.13 (Continued)

DETAILING OF STUDENT STATIONS BY ROOM-TYPE:
FALL, 1973

(CONTINUED)

| *****NUMBER OF ALLOCATED STUDENT STATIONS*****> | | | | | <*****NASF PER ALLOCATED STUDENT STATION*****< | | | | |
|---|-----------------|--|----------------|------------------|--|-----------------|--|----------------|-------------------|
| CLASSROOM (1) | CLASSLAB (2) | RESEARCH AND RESEARCH TRAINING (3) | LIBRARY (4) | AUDITORIA (5) | CLASSROOM (6) | CLASSLAB (7) | RESEARCH AND RESEARCH TRAINING (8) | LIBRARY (9) | AUDITORIA (10) |
| | | | | | 5 | 493 | 41 | 5 | 5 |
| | | | | | 151 | | 195 | 11 | 11 |
| | | | | | 213 | | 493 | 41 | 41 |
| | | | | | 245 | | 523 | 105 | 52 |
| | | | | | 262 | | 645 | 151 | 143 |
| | | | | | 265 | | 665 | 181 | 151 |
| | | | | | 384 | | 693 | 262 | 181 |
| | | | | | 403 | | 824 | 375 | 204 |
| | | | | | 404 | | | 403 | 213 |
| | | | | | 453 | | | 453 | 245 |
| | | | | | 493 | | | 465 | 262 |
| | | | | | 511 | | | 493 | 263 |
| | | | | | 824 | | | 511 | 265 |
| | | | | | 883 | | | 523 | 294 |
| | | | | | 922 | | | 571 | 344 |
| | | | | | 923 | | | 585 | 382 |
| | | | | | | | | 594 | 384 |
| | | | | | | | | 663 | 403 |
| | | | | | | | | 692 | 404 |
| | | | | | | | | 724 | 422 |
| | | | | | | | | 812 | 453 |
| | | | | | | | | 824 | 454 |
| | | | | | | | | 841 | 465 |
| | | | | | | | | 883 | 493 |
| | | | | | | | | 922 | 511 |
| | | | | | | | | 923 | 514 |
| | | | | | | | | 982 | 523 |
| | | | | | | | | | 532 |
| | | | | | | | | | 535 |
| | | | | | | | | | 571 |
| | | | | | | | | | 572 |
| | | | | | | | | | 585 |
| | | | | | | | | | 594 |
| | | | | | | | | | 621 |
| | | | | | | | | | 645 |
| | | | | | | | | | 663 |
| | | | | | | | | | 665 |
| | | | | | | | | | 692 |
| | | | | | | | | | 693 |
| | | | | | | | | | 724 |
| | | | | | | | | | 812 |
| | | | | | | | | | 824 |
| | | | | | | | | | 841 |
| | | | | | | | | | 883 |
| | | | | | | | | | 902 |
| | | | | | | | | | 922 |
| | | | | | | | | | 923 |
| | | | | | | | | | 971 |
| | | | | | | | | | 984 |

TABLE J.14

DETAILING OF STUDENT STATIONS BY ROOM-TYPE:
FALL, 1973

PODIATRY

| | <.....NUMBER OF ALLOCATED STUDENT STATIONS.....> | | | | | <.....NASF PER ALLOCATED STUDENT STATION.....> | | | |
|---|--|----------|---|---------|------------|--|----------|---|---------|
| | CLASSROOM | CLASSLAB | RESEARCH AND RESEARCH TRAINING | LIBRARY | AUDITORIUM | CLASSROOM | CLASSLAB | RESEARCH AND RESEARCH TRAINING | LIBRARY |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
| TOTAL | 1324 | 428 | 4 | 232 | 350 | 22 | 49 | 0 | 26 |
| NUMBER OF SCHOOLS | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 |
| MEAN | 265 | 86 | 1 | 46 | 70 | 22 | 73 | 0 | 49 |
| HIGH | 320 | 120 | 4 | 100 | 350 | 37 | 200 | 0 | 100 |
| LOW | 190 | 20 | 0 | 10 | 0 | 12 | 20 | 0 | 10 |
| 082 | 300 | 120 | 0 | 60 | 350 | 37 | 75 | | 33 |
| 191 | 320 | 70 | 0 | 12 | 0 | 12 | 43 | | 83 |
| 264 | 300 | 100 | 0 | 100 | 0 | 13 | 20 | | 10 |
| 644 | 214 | 20 | 0 | 10 | 0 | 33 | 200 | | 100 |
| 833 | 190 | 118 | 4 | 50 | 0 | 16 | 25 | 0 | 20 |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | | | | | | | | 82 | |
| | | | | | | | | 191 | |
| | | | | | | | | 264 | |
| | | | | | | | | 644 | |

TABLE J.14

DETAILING OF STUDENT STATIONS BY ROOM-TYPE:
FALL, 1973

| *****NUMBER OF ALLOCATED STUDENT STATIONS*****><*****NASF PER ALLOCATED STUDENT STATION*****> | | | | | | | | | |
|---|----------|---|---------|-----------|-----------|----------|---|---------|-----------|
| CLASSROOM | CLASSLAB | RESEARCH AND RESEARCH TRAINING | LIBRARY | AUDITORIA | CLASSROOM | CLASSLAB | RESEARCH AND RESEARCH TRAINING | LIBRARY | AUDITORIA |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) | (10) |
| 1324 | 428 | 4 | 232 | 350 | 22 | 49 | 0 | 26 | 11 |
| 5 | 5 | 5 | 5 | 5 | 5 | 5 | 1 | 5 | 1 |
| 265 | 86 | 1 | 46 | 70 | 22 | 73 | 0 | 49 | 11 |
| 320 | 120 | 4 | 100 | 350 | 37 | 200 | 0 | 100 | 11 |
| 190 | 20 | 0 | 10 | 0 | 12 | 20 | 0 | 10 | 11 |
| 300 | 120 | 0 | 60 | 350 | 37 | 75 | | 33 | 11 |
| 320 | 70 | 0 | 12 | 0 | 12 | 43 | | 83 | |
| 300 | 100 | 0 | 100 | 0 | 13 | 20 | | 10 | |
| 214 | 20 | 0 | 10 | 0 | 33 | 200 | | 100 | |
| 190 | 118 | 4 | 50 | 0 | 16 | 25 | 0 | 20 | |
| | | | | | | | 82 | | 191 |
| | | | | | | | 191 | | 264 |
| | | | | | | | 264 | | 644 |
| | | | | | | | 644 | | 833 |

TABLE J.15

DETAILING OF STUDENT STATIONS BY ROOM-TYPE:
FALL, 1973

PUBLIC HEALTH

| | <.....NUMBER OF ALLOCATED STUDENT STATIONS.....> | | | | | <.....NASF PER ALLOCATED STUDENT STATION.....> | | | |
|---|--|-----------------|--|----------------|-------------------|--|-----------------|--|----------------|
| | CLASSROOM (1) | CLASSLAB (2) | RESEARCH AND RESEARCH TRAINING (3) | LIBRARY (4) | AUDITORIUM (5) | CLASSROOM (6) | CLASSLAB (7) | RESEARCH AND RESEARCH TRAINING (8) | LIBRARY (9) |
| TOTAL | 4430 | 1068 | 1168 | 998 | 1438 | 21 | 40 | 269 | 55 |
| NUMBER OF SCHOOLS | 13 | 13 | 13 | 13 | 13 | 13 | 11 | 11 | 10 |
| MEAN | 341 | 82 | 90 | 77 | 111 | 24 | 42 | 512 | 65 |
| HIGH | 1120 | 181 | 365 | 309 | 460 | 62 | 111 | 1580 | 125 |
| LOW | 35 | 0 | 0 | 0 | 0 | 14 | 0 | 89 | 40 |
| 032 | 179 | 18 | 18 | 134 | 0 | 17 | 111 | 167 | 60 |
| 154 | 538 | 180 | 191 | 8 | 240 | 19 | 39 | 89 | 125 |
| 223 | 174 | 59 | 33 | 0 | 0 | 17 | 34 | 727 | |
| 251 | 375 | 148 | 3 | 20 | 0 | 16 | 27 | 667 | 50 |
| 272 | 70 | 8 | 0 | 0 | 0 | 14 | 0 | | |
| 291 | 35 | 135 | 82 | 112 | 0 | 29 | 37 | 341 | 71 |
| 381 | 211 | 115 | 178 | 0 | 0 | 19 | 43 | 152 | |
| 494 | 220 | 0 | 8 | 20 | 0 | 41 | | 500 | 100 |
| 681 | 140 | 35 | 20 | 50 | 100 | 14 | 29 | 1050 | 40 |
| 762 | 1120 | 181 | 365 | 309 | 350 | 22 | 39 | 205 | 45 |
| 763 | 80 | 0 | 220 | 40 | 0 | 62 | | 155 | 50 |
| 834 | 961 | 101 | 0 | 152 | 288 | 14 | 59 | | 59 |
| 882 | 327 | 88 | 50 | 153 | 460 | 31 | 45 | 1580 | 52 |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | | | | | | | 494 | 272 | 223 |
| | | | | | | | 763 | 834 | 272 |
| | | | | | | | | | 381 |

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TABLE J.15

DETAILING OF STUDENT STATIONS BY ROOM-TYPE:
FALL, 1973

| <.....NUMBER OF ALLOCATED STUDENT STATIONS.....> | | | | | <.....NASF PER ALLOCATED STUDENT STATION.....> | | | | |
|--|-----------------|--|----------------|------------------|--|-----------------|--|----------------|-------------------|
| CLASSROOM (1) | CLASSLAB (2) | RESEARCH AND RESEARCH TRAINING (3) | LIBRARY (4) | AUDITORIA (5) | CLASSROOM (6) | CLASSLAB (7) | RESEARCH AND RESEARCH TRAINING (8) | LIBRARY (9) | AUDITORIA (10) |
| 4430 | 1068 | 1168 | 998 | 1438 | 21 | 40 | 269 | 55 | 11 |
| 13 | 13 | 13 | 13 | 13 | 13 | 11 | 11 | 10 | 5 |
| 341 | 82 | 90 | 77 | 111 | 24 | 42 | 512 | 65 | 10 |
| 1120 | 181 | 365 | 309 | 460 | 62 | 111 | 1580 | 125 | 20 |
| 35 | 0 | 0 | 0 | 0 | 14 | 0 | 89 | 40 | 3 |
| 179 | 18 | 18 | 134 | 0 | 17 | 111 | 167 | 60 | |
| 538 | 180 | 191 | 8 | 240 | 19 | 39 | 89 | 125 | 8 |
| 174 | 59 | 33 | 0 | 0 | 17 | 34 | 727 | | |
| 375 | 148 | 3 | 20 | 0 | 16 | 27 | 667 | 50 | |
| 70 | 8 | 0 | 0 | 0 | 14 | 0 | | | |
| 39 | 135 | 82 | 112 | 0 | 29 | 37 | 341 | 71 | |
| 211 | 115 | 178 | 0 | 0 | 19 | 43 | 152 | | |
| 220 | 0 | 8 | 20 | 0 | 41 | | 500 | 100 | |
| 140 | 35 | 20 | 50 | 100 | 14 | 29 | 1050 | 40 | 10 |
| 1120 | 181 | 365 | 309 | 350 | 22 | 39 | 205 | 45 | 9 |
| 80 | 0 | 220 | 40 | 0 | 62 | | 155 | 50 | |
| 961 | 101 | 0 | 152 | 288 | 14 | 59 | | 59 | 3 |
| 327 | 88 | 50 | 153 | 460 | 31 | 45 | 1580 | 52 | 20 |
| | | | | | | 494 | 272 | 223 | 32 |
| | | | | | | 763 | 834 | 272 | 223 |
| | | | | | | | | 381 | 251 |
| | | | | | | | | | 272 |
| | | | | | | | | | 291 |
| | | | | | | | | | 381 |
| | | | | | | | | | 494 |
| | | | | | | | | | 763 |

TABLE J.16

DETAILING OF STUDENT STATIONS BY ROOM-TYPE:
FALL, 1973

VETERINARY MEDICINE

<.....NUMBER OF ALLOCATED STUDENT STATIONS.....><.....NASF PER ALLOCATED STUDENT STATION.....>

| | CLASSROOM (1) | CLASSLAB (2) | RESEARCH AND RESEARCH TRAINING (3) | LIBRARY (4) | AUDITORIA (5) | CLASSROOM (6) | CLASSLAB (7) | RESEARCH AND RESEARCH TRAINING (8) | LIBRARY (9) |
|---|------------------|-----------------|--|----------------|------------------|------------------|-----------------|--|----------------|
| TOTAL NUMBER MEAN HIGH LOW | 6390 | 6314 | 985 | 1157 | 1324 | 17 | 55 | 519 | 46 |
| | 19 | 19 | 19 | 19 | 19 | 14 | 18 | 15 | 14 |
| | 336 | 332 | 52 | 61 | 70 | 16 | 54 | 622 | 43 |
| | 1154 | 578 | 228 | 206 | 310 | 29 | 149 | 1017 | 88 |
| | 0 | 0 | 0 | 0 | 0 | 9 | 0 | 145 | 0 |
| 002 | 403 | 438 | 44 | 59 | 264 | 22 | 48 | 864 | 68 |
| 021 | 651 | 578 | 30 | 112 | 0 | 11 | 66 | 733 | 36 |
| 043 | 0 | 10 | 0 | 0 | 0 | | 0 | | |
| 061 | 166 | 169 | 14 | 32 | 200 | 18 | 53 | 786 | 31 |
| 165 | 557 | 486 | 60 | 125 | 310 | 9 | 78 | 1017 | 88 |
| 243 | 336 | 483 | 46 | 116 | 0 | 12 | 46 | 500 | 52 |
| 292 | 0 | 508 | 40 | 0 | 0 | | 57 | 775 | |
| 321 | 0 | 94 | 86 | 0 | 0 | | 149 | 512 | |
| 354 | 1154 | 490 | 62 | 143 | 0 | 29 | 53 | 403 | 42 |
| 363 | 288 | 288 | 54 | 206 | 0 | 28 | 10 | 889 | 10 |
| 392 | 300 | 360 | 74 | 67 | 0 | 17 | 50 | 243 | 45 |
| 424 | 230 | 248 | 60 | 50 | 300 | 13 | 81 | 383 | 40 |
| 442 | 574 | 393 | 228 | 40 | 0 | 10 | 61 | 145 | 50 |
| 502 | 200 | 300 | 25 | 40 | 250 | 15 | 13 | 640 | 0 |
| 545 | 0 | 259 | 30 | 55 | 0 | | 69 | 700 | 73 |
| 551 | 933 | 507 | 132 | 2 | 0 | 13 | 69 | 735 | 0 |
| 622 | 48 | 256 | 0 | 0 | 0 | 21 | 16 | | |
| 784 | 550 | 447 | 0 | 110 | 0 | 11 | 58 | | 73 |
| 851 | 0 | 0 | 0 | 0 | 0 | | | | |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | | | | | | 43 | 851 | 43 | 43 |
| | | | | | | 292 | | 622 | 292 |
| | | | | | | 321 | | 784 | 321 |
| | | | | | | 545 | | 851 | 622 |
| | | | | | | 851 | | | 851 |

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TABLE J.16

DETAILING OF STUDENT STATIONS BY ROOM-TYPE:
FALL, 1973

| *****NUMBER OF ALLOCATED STUDENT STATIONS*****<*****NASF PER ALLOCATED STUDENT STATION*****> | | | | | | | | | |
|--|-----------------|------------------------------------|----------------|-------------------|------------------|-----------------|------------------------------------|----------------|--------------------|
| CLASSROOM (1) | CLASSLAB (2) | RESEARCH AND TRAINING (3) | LIBRARY (4) | AUDITORIUM (5) | CLASSROOM (6) | CLASSLAB (7) | RESEARCH AND TRAINING (8) | LIBRARY (9) | AUDITORIUM (10) |
| 6390 | 6314 | 985 | 1157 | 1324 | 17 | 55 | 519 | 46 | 10 |
| 19 | 19 | 19 | 19 | 19 | 14 | 18 | 15 | 14 | 5 |
| 336 | 332 | 52 | 61 | 70 | 16 | 54 | 622 | 43 | 9 |
| 1154 | 578 | 228 | 206 | 310 | 29 | 149 | 1017 | 88 | 17 |
| 0 | 0 | 0 | 0 | 0 | 9 | 0 | 145 | 0 | 4 |
| 403 | 438 | 44 | 59 | 264 | 22 | 48 | 864 | 68 | 8 |
| 651 | 578 | 30 | 112 | 0 | 11 | 66 | 733 | 36 | |
| 0 | 10 | 0 | 0 | 0 | | 0 | | | |
| 166 | 169 | 14 | 32 | 200 | 18 | 53 | 766 | 31 | 5 |
| 557 | 486 | 60 | 125 | 310 | 9 | 78 | 1017 | 88 | 13 |
| 336 | 483 | 46 | 116 | 0 | 12 | 46 | 500 | 52 | |
| 0 | 508 | 40 | 0 | 0 | | 57 | 775 | | |
| 0 | 94 | 86 | 0 | 0 | | 149 | 512 | | |
| 1154 | 490 | 62 | 143 | 0 | 29 | 53 | 403 | 42 | |
| 288 | 288 | 54 | 206 | 0 | 28 | 10 | 889 | 10 | |
| 300 | 360 | 74 | 67 | 0 | 17 | 50 | 243 | 45 | |
| 230 | 248 | 60 | 50 | 300 | 13 | 81 | 383 | 40 | 17 |
| 574 | 393 | 228 | 40 | 0 | 10 | 61 | 145 | 50 | |
| 200 | 300 | 25 | 40 | 250 | 15 | 13 | 640 | 0 | 4 |
| 0 | 259 | 30 | 55 | 0 | | 69 | 700 | 73 | |
| 933 | 507 | 132 | 2 | 0 | 13 | 69 | 735 | 0 | |
| 48 | 256 | 0 | 0 | 0 | 21 | 16 | | | |
| 550 | 447 | 0 | 110 | 0 | 11 | 58 | | 73 | |
| 0 | 0 | 0 | 0 | 0 | | | | | |
| | | | | | 43 | 851 | 43 | 43 | 21 |
| | | | | | 292 | | 622 | 292 | 43 |
| | | | | | 321 | | 784 | 321 | 243 |
| | | | | | 545 | | 851 | 622 | 292 |
| | | | | | 851 | | | 851 | 321 |
| | | | | | | | | | 354 |
| | | | | | | | | | 363 |
| | | | | | | | | | 392 |
| | | | | | | | | | 442 |
| | | | | | | | | | 545 |
| | | | | | | | | | 551 |
| | | | | | | | | | 622 |
| | | | | | | | | | 784 |
| | | | | | | | | | 851 |

FOOTNOTES

DETAILING OF STUDENT STATIONS BY ROOM TYPE

1. In this and all other columns, the number of student stations reported (and used in the computation of NASF per station) excludes any student stations available for use on a "shared" basis (i.e., joint-use), a typical situation in the case of library and auditoria. For those schools which have a large number of student stations available on a joint-use basis, the number reported in any of columns 1-5 may thus appear low.

TABLE J.17

INSTRUCTION RESOURCES IN CLINICAL AREAS

DENTISTRY

| | NUMBER OF TEACHING BEDS RE- PORTED (1) | NUMBER OF AMBULATORY PATIENT STATIONS (2) | NASF (000) OF "ONSITE PATIENT CARE" FACILITIES (3) | NASF (000) OF IN- STRUCTION- AL SPACE (EXCL. PAT. CARE AREA) (4) | PERCENTAGE OF COL.4 CONSIDERED SATIS- FACTORY (5) | PERCENTAGE OF COL.4 NEEDING REMODELING (6) | PERCENTAGE OF COL.4 NEEDING REPLACE- MENT (7) | INSTRUCT. SPACE NEEDED IN CLINICAL AREAS (POST-CON) (8) |
|-------------------|--|---|---|--|--|--|--|---|
| TOTAL | 6416 | 11004 | 1235 | 200 | 80 | 8 | 10 | 138 |
| NUMBER OF SCHOOLS | 93 | 93 | 53 | 53 | 17 | 17 | 17 | 53 |
| MEAN | 121 | 208 | 23 | 4 | 61 | 21 | 15 | 3 |
| HIGH | 3578 | 703 | 62 | 62 | 100 | 100 | 150 | 74 |
| LOW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 081 | 0 | 141 | 20 | 0 | | | | 0 |
| 085 | 29 | 199 | 19 | 0 | | | | 0 |
| 102 | 2 | 328 | 32 | 0 | | | | 0 |
| 124 | 487 | 247 | 42 | 0 | | | | 0 |
| 132 | 0 | 161 | 24 | 0 | | | | 0 |
| 135 | 0 | 19 | 0 | 0 | | | | 0 |
| 192 | 0 | 9 | 2 | 0 | | | | 0 |
| 193 | 18 | 236 | 24 | 11 | 0 | 0 | 100 | 5 |
| 231 | 20 | 158 | 10 | 13 | 69 | 15 | 0 | 1 |
| 242 | 0 | 364 | 53 | 0 | | | | 0 |
| 244 | 0 | 220 | 27 | 0 | | | | 0 |
| 305 | 11 | 369 | 48 | 0 | | | | 0 |
| 314 | 6 | 584 | 62 | 0 | | | | 0 |
| 335 | 0 | 33 | 5 | 0 | | | | 0 |
| 352 | 0 | 439 | 44 | 1 | 100 | 0 | 0 | 1 |
| 361 | 5 | 312 | 25 | 1 | 0 | 100 | 0 | 0 |
| 383 | 18 | 378 | 34 | 54 | 98 | 0 | 0 | 1 |
| 423 | 0 | 113 | 17 | 0 | | | | 0 |
| 445 | 117 | 239 | 37 | 4 | 100 | 0 | 0 | 7 |
| 462 | 8 | 265 | 50 | 1 | 100 | 0 | 0 | 2 |
| 471 | 0 | 269 | 23 | 0 | | | | 0 |
| 473 | 7 | 98 | 11 | 1 | 100 | 0 | 0 | 0 |
| 474 | 0 | 28 | 5 | 0 | | | | 0 |
| 491 | 22 | 375 | 39 | 0 | | | | 0 |
| 513 | 0 | 147 | 17 | 0 | | | | 0 |
| 552 | 2 | 201 | 15 | 3 | 100 | 0 | 0 | 1 |
| 564 | 0 | 223 | 19 | 0 | | | | 0 |
| 565 | 1 | 147 | 16 | 0 | | | | 7 |
| 591 | 0 | 0 | 0 | 0 | | | | 0 |
| 592 | 0 | 322 | 37 | 2 | 0 | 0 | 150 | 3 |
| 603 | 0 | 0 | 40 | 0 | | | | 0 |
| 605 | 2 | 256 | 25 | 0 | | | | 0 |
| 633 | 970 | 166 | 38 | 0 | | | | 0 |
| 641 | 0 | 38 | 0 | 0 | | | | 0 |
| 642 | 64 | 21 | 29 | 0 | | | | 0 |
| 701 | 415 | 327 | 45 | 1 | 0 | 100 | 0 | 0 |
| 704 | 0 | 209 | 19 | 0 | | | | 0 |
| 715 | 0 | 0 | 0 | 0 | | | | 0 |
| 733 | 0 | 186 | 10 | 0 | | | | 0 |
| 751 | 12 | 372 | 28 | 0 | | | | 33 |
| 764 | 10 | 210 | 24 | 5 | 100 | 0 | 0 | 0 |
| 792 | 0 | 392 | 39 | 0 | | | | 0 |
| 804 | 0 | 258 | 20 | 0 | | | | 0 |
| 821 | 0 | 37 | 7 | 0 | | | | 0 |

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TABLE J.17 (Continued)

INSTRUCTION RESOURCES IN CLINICAL AREAS

DENTISTRY

(CONTINUED)

| | NUMBER OF TEACHING BEDS RE- PORTED (1) | NUMBER OF AMBULATORY PATIENT STATIONS (2) | NASF (000) OF "ONSITE PATIENT CARE" FACILITIES (3) | NASF (000) OF IN- STRUCTION- AL SPACE (EXCL. PAT. CARE AREA) (4) | PERCENTAGE OF COL. 4 CONSIDERED SATIS- FACTORY (5) | PERCENTAGE OF COL. 4 NEEDING REMODELING (6) | PERCENTAGE OF COL. 4 NEEDING REPLACE- MENT (7) | INSTRUCT. SPACE NEEDED IN CLINICAL AREAS (POST-CON) (8) |
|---|--|---|---|--|---|---|---|---|
| 832 | 0 | 72 | 7 | 0 | | | | 0 |
| 853 | 3578 | 703 | 25 | 62 | 74 | 16 | 10 | 74 |
| 854 | 11 | 175 | 21 | 0 | | | | 0 |
| 862 | 0 | 46 | 3 | 0 | | | | 0 |
| 911 | 373 | 228 | 32 | 32 | 100 | 0 | 0 | 0 |
| 913 | 4 | 190 | 8 | 5 | 100 | 0 | 0 | 0 |
| 941 | 5 | 305 | 35 | 1 | 0 | 100 | 0 | 0 |
| 942 | 19 | 37 | 0 | 3 | 0 | 33 | 0 | 3 |
| 944 | 6 | 152 | 23 | 0 | | | | 0 |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | | | | | 81 | 81 | 81 | |
| | | | | | 85 | 85 | 85 | |
| | | | | | 102 | 102 | 102 | |
| | | | | | 124 | 124 | 124 | |
| | | | | | 132 | 132 | 132 | |
| | | | | | 135 | 135 | 135 | |
| | | | | | 192 | 192 | 192 | |
| | | | | | 242 | 242 | 242 | |
| | | | | | 244 | 244 | 244 | |
| | | | | | 305 | 305 | 305 | |
| | | | | | 314 | 314 | 314 | |
| | | | | | 335 | 335 | 335 | |
| | | | | | 423 | 423 | 423 | |
| | | | | | 471 | 471 | 471 | |
| | | | | | 474 | 474 | 474 | |
| | | | | | 491 | 491 | 491 | |
| | | | | | 513 | 513 | 513 | |
| | | | | | 564 | 564 | 564 | |
| | | | | | 565 | 565 | 565 | |
| | | | | | 591 | 591 | 591 | |
| | | | | | 603 | 603 | 603 | |
| | | | | | 605 | 605 | 605 | |
| | | | | | 633 | 633 | 633 | |
| | | | | | 641 | 641 | 641 | |
| | | | | | 642 | 642 | 642 | |
| | | | | | 704 | 704 | 704 | |
| | | | | | 715 | 715 | 715 | |
| | | | | | 733 | 733 | 733 | |
| | | | | | 751 | 751 | 751 | |
| | | | | | 792 | 792 | 792 | |
| | | | | | 804 | 804 | 804 | |
| | | | | | 821 | 821 | 821 | |
| | | | | | 832 | 832 | 832 | |
| | | | | | 854 | 854 | 854 | |
| | | | | | 862 | 862 | 862 | |
| | | | | | 944 | 944 | 944 | |

TABLE J.18

INSTRUCTION RESOURCES IN CLINICAL AREAS

MEDICINE

| | NUMBER OF TEACHING BEDS RE- PORTED (1) | NUMBER OF AMBULATORY PATIENT STATIONS (2) | NASF (000) OF "ONSITE PATIENT CARE" FACILITIES (3) | NASF (000) OF IN- STRUCTION- AL SPACE (EXCL. PAT. CARE AREA) (4) | PERCENTAGE OF COL. 4 CONSIDERED SATIS- FACTORY (5) | PERCENTAGE OF COL. 4 NEEDING REMODELING (6) | PERCENTAGE OF COL. 4 NEEDING REPLACE- MENT (7) | INSTRUCT, SPACE NEEDED IN CLINICAL AREAS (POST-CON) (8) |
|-------------------|--|---|---|--|---|---|---|---|
| TOTAL | 178941 | 19353 | 1716 | 5448 | 72 | 14 | 8 | 1755 |
| NUMBER OF SCHOOLS | 95 | 95 | 95 | 95 | 81 | 81 | 81 | 95 |
| MEAN | 1884 | 204 | 18 | 57 | 75 | 12 | 7 | 18 |
| HIGH | 7574 | 2000 | 466 | 487 | 100 | 80 | 100 | 318 |
| LOW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 022 | 0 | 0 | 1 | 60 | 0 | 0 | 0 | 0 |
| 023 | 6508 | 128 | 0 | 46 | 100 | 0 | 0 | 0 |
| 024 | 2878 | 154 | 13 | 41 | 100 | 0 | 0 | 0 |
| 025 | 1129 | 0 | 0 | 0 | | | | 0 |
| 054 | 6997 | 250 | 6 | 0 | | | | 0 |
| 055 | 397 | 389 | 0 | 12 | 0 | 0 | 100 | 280 |
| 074 | 2960 | 186 | 4 | 138 | 90 | 0 | 10 | 7 |
| 091 | 656 | 24 | 0 | 50 | 20 | 50 | 30 | 65 |
| 094 | 2019 | 1058 | 466 | 8 | 75 | 25 | 0 | 63 |
| 095 | 2323 | 272 | 44 | 58 | 100 | 0 | 0 | 0 |
| 112 | 4667 | 160 | 0 | 0 | | | | 0 |
| 121 | 305 | 36 | 0 | 5 | 100 | 0 | 0 | 5 |
| 133 | 4780 | 500 | 24 | 257 | 70 | 6 | 23 | 92 |
| 134 | 1671 | 180 | 0 | 5 | 100 | 0 | 0 | 3 |
| 141 | 979 | 56 | 180 | 30 | 93 | 0 | 7 | 4 |
| 142 | 2481 | 181 | 35 | 96 | 93 | 5 | 1 | 24 |
| 145 | 2993 | 286 | 10 | 248 | 83 | 0 | 0 | 10 |
| 152 | 2893 | 59 | 0 | 21 | 67 | 10 | 24 | 0 |
| 153 | 1550 | 2000 | 0 | 0 | | | | 0 |
| 172 | 1558 | 14 | 2 | 0 | | | | 0 |
| 184 | 596 | 93 | 0 | 9 | 100 | 0 | 0 | 0 |
| 203 | 3126 | 389 | 0 | 161 | 70 | 3 | 27 | 20 |
| 212 | 660 | 387 | 0 | 5 | 88 | 20 | 0 | 33 |
| 215 | 1502 | 258 | 61 | 3 | 100 | 0 | 0 | 0 |
| 222 | 2634 | 188 | 0 | 38 | 100 | 0 | 0 | 0 |
| 224 | 1076 | 0 | 0 | 0 | | | | 0 |
| 241 | 2242 | 246 | 5 | 12 | 92 | 8 | 0 | 5 |
| 252 | 7574 | 361 | 6 | 8 | 0 | 50 | 50 | 32 |
| 254 | 0 | 0 | 0 | 0 | | | | 0 |
| 275 | 3119 | 397 | 2 | 44 | 100 | 0 | 0 | 7 |
| 283 | 939 | 30 | 0 | 5 | 60 | 20 | 20 | 14 |
| 295 | 2246 | 270 | 0 | 87 | 29 | 55 | 16 | 0 |
| 311 | 636 | 52 | 0 | 11 | 55 | 45 | 0 | 17 |
| 315 | 870 | 101 | 3 | 18 | 100 | 0 | 0 | 0 |
| 324 | 3351 | 368 | 2 | 119 | 73 | 25 | 2 | 318 |
| 333 | 1295 | 123 | 15 | 94 | 59 | 16 | 7 | 0 |
| 341 | 1227 | 93 | 2 | 10 | 50 | 50 | 0 | 0 |
| 345 | 1352 | 24 | 0 | 23 | 100 | 0 | 0 | 24 |
| 362 | 578 | 181 | 17 | 114 | 50 | 25 | 25 | 0 |
| 371 | 2776 | 174 | 43 | 111 | 92 | | 0 | 3 |
| 377 | 3793 | 348 | 0 | 75 | 100 | 0 | 0 | 5 |
| 393 | 650 | 33 | 0 | 111 | 100 | 0 | 0 | 0 |
| 395 | 512 | 49 | 0 | 19 | 100 | 0 | 0 | 0 |
| 401 | 1498 | 70 | 0 | 95 | 93 | 1 | 6 | 21 |

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TABLE J.18 (Continued)

INSTRUCTION RESOURCES IN CLINICAL AREAS

MEDICINE

(CONTINUED)

| | NUMBER OF TEACHING BEDS RE- PORTED (1) | NUMBER OF AMBULATORY PATIENT STATIONS (2) | NASF (000) OF "ONSITE PATIENT CARE" FACILITIES (3) | NASF (000) OF IN- STRUCTION- AL SPACE (EXCL. PAT. CARE AREA) (4) | PERCENTAGE OF COL. 4 CONSIDERED SATIS- FACTORY (5) | PERCENTAGE OF COL. 4 NEEDING REMODELING (6) | PERCENTAGE OF COL. 4 NEEDING REPLACE- MENT (7) | INSTRUCT. SPACE NEEDED IN CLINICAL AREAS (POST-CON) (8) |
|-----|--|---|---|--|---|---|---|---|
| 415 | 3397 | 258 | 10 | 19 | 89 | 5 | 3 | 10 |
| 433 | 2273 | 438 | 39 | 109 | 89 | 11 | 0 | 12 |
| 455 | 4467 | 491 | 0 | 54 | 52 | 48 | 0 | 6 |
| 472 | 1152 | 287 | 11 | 90 | 29 | 3 | 0 | 0 |
| 483 | 810 | 97 | 0 | 57 | 44 | 0 | 56 | 93 |
| 484 | 1004 | 80 | 0 | 62 | 68 | 6 | 26 | 0 |
| 522 | 1209 | 271 | 0 | 83 | 84 | 16 | 0 | 0 |
| 531 | 1173 | 242 | 348 | 78 | 97 | 3 | 0 | 10 |
| 543 | 1787 | 164 | 0 | 45 | 100 | 0 | 0 | 0 |
| 562 | 1149 | 201 | 3 | 28 | 100 | 0 | 0 | 84 |
| 563 | 0 | 12 | 0 | 16 | 100 | 0 | 0 | 0 |
| 574 | 937 | 238 | 19 | 90 | 100 | 1 | 0 | 0 |
| 575 | 1281 | 123 | 0 | 84 | 75 | 25 | 0 | 60 |
| 583 | 200 | 0 | 0 | 9 | 100 | 0 | 0 | 0 |
| 602 | 1260 | 275 | 6 | 16 | 94 | 6 | 0 | 0 |
| 613 | 2550 | 252 | 0 | 41 | 32 | 41 | 29 | 11 |
| 624 | 1357 | 65 | 0 | 29 | 100 | 0 | 0 | 0 |
| 635 | 1877 | 160 | 0 | 0 | | | | 0 |
| 651 | 1951 | 12 | 0 | 75 | 77 | 0 | 0 | 0 |
| 652 | 1908 | 212 | 0 | 37 | 51 | 30 | 19 | 36 |
| 653 | 727 | 8 | 0 | 6 | 100 | 0 | 0 | 7 |
| 664 | 2101 | 271 | 1 | 71 | 100 | 0 | 0 | 0 |
| 671 | 1316 | 41 | 36 | 0 | | | | 0 |
| 672 | 1094 | 124 | 0 | 41 | 0 | 0 | 0 | 0 |
| 683 | 1019 | 143 | 1 | 39 | 41 | 59 | 0 | 3 |
| 711 | 1989 | 86 | 0 | 30 | 20 | 80 | 0 | 45 |
| 714 | 3570 | 474 | 2 | 43 | 88 | 9 | 2 | 25 |
| 731 | 546 | 146 | 0 | 198 | 100 | 0 | 0 | 0 |
| 743 | 903 | 140 | 0 | 85 | 75 | 22 | 2 | 26 |
| 744 | 3621 | 358 | 253 | 75 | 79 | 0 | 11 | 22 |
| 761 | 1263 | 163 | 1 | 0 | | | | 0 |
| 772 | 0 | 0 | 10 | 0 | | | | 0 |
| 774 | 2090 | 251 | 0 | 173 | 82 | 11 | 5 | 11 |
| 783 | 2474 | 490 | 0 | 0 | | | | 0 |
| 802 | 2145 | 401 | 0 | 51 | 20 | 0 | 0 | 59 |
| 813 | 2674 | 111 | 0 | 114 | 85 | 3 | 13 | 0 |
| 823 | 3388 | 38 | 7 | 2 | 100 | 0 | 0 | 0 |
| 831 | 861 | 153 | 0 | 119 | 100 | 0 | 0 | 18 |
| 863 | 3608 | 31 | 0 | 0 | | | | 17 |
| 864 | 2061 | 102 | 0 | 18 | 100 | 0 | 0 | 2 |
| 872 | 1761 | 146 | 0 | 487 | 23 | 53 | 24 | 0 |
| 891 | 818 | 28 | 0 | 44 | 89 | 11 | 0 | 0 |
| 903 | 0 | 0 | 6 | 0 | | | | 0 |
| 904 | 1766 | 28 | 0 | 100 | 58 | 23 | 9 | 2 |
| 921 | 2134 | 254 | 12 | 198 | 100 | 0 | 0 | 5 |
| 951 | 1602 | 486 | 10 | 59 | 31 | 69 | 0 | 5 |
| 952 | 4509 | 54 | 0 | 49 | 96 | 2 | 2 | 0 |
| 953 | 350 | 114 | 0 | 42 | 100 | 0 | 0 | 0 |
| 954 | 451 | 300 | 0 | 18 | 0 | 0 | 0 | 0 |
| 962 | 1241 | 52 | 0 | 35 | 97 | 0 | 3 | 0 |
| 973 | 1121 | 314 | 0 | 82 | 100 | 0 | 0 | 134 |

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TABLE J.18 (Continued)

INSTRUCTION RESOURCES IN CLINICAL AREAS

MEDICINE

(CONTINUED)

| NUMBER OF TEACHING BEDS RE- PORTED (1) | NUMBER OF AMBULATORY PATIENT STATIONS (2) | NASF (000) OF "ONSITE PATIENT CARE" FACILITIES (3) | NASF (000) OF IN- STRUCTION- AL SPACE (EXCL.PAT. CARE AREA) (4) | PERCENTAGE OF COL.4 CONSIDERED SATIS- FACTORY (5) | PERCENTAGE OF COL.4 NEEDING REMODELING (6) | PERCENTAGE OF COL.4 NEEDING, REPLACE- MENT (7) | INSTRUCT, SPACE NEEDED IN CLINICAL AREAS (POST-CON) (8) |
|--|---|---|---|--|--|---|---|
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | | | | 25 | 25 | 25 | |
| | | | | 54 | 54 | 54 | |
| | | | | 112 | 112 | 112 | |
| | | | | 153 | 153 | 153 | |
| | | | | 172 | 172 | 172 | |
| | | | | 224 | 224 | 224 | |
| | | | | 254 | 254 | 254 | |
| | | | | 635 | 635 | 635 | |
| | | | | 671 | 671 | 671 | |
| | | | | 761 | 761 | 761 | |
| | | | | 772 | 772 | 772 | |
| | | | | 783 | 783 | 783 | |
| | | | | 863 | 863 | 863 | |
| | | | | 903 | 903 | 903 | |

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TABLE J.19

INSTRUCTION RESOURCES IN CLINICAL AREAS

OPTOMETRY

| | NUMBER OF TEACHING BEDS RE- PORTED (1) | NUMBER OF AMBULATORY PATIENT STATIONS (2) | NASF (000) OF "ONSITE PATIENT CARE" FACILITIES (3) | NASF (000) OF IN- STRUCTION- AL SPACE (EXCL. PAT. CARE AREA) (4) | PERCENTAGE OF COL. 4 CONSIDERED SATIS- FACTORY (5) | PERCENTAGE OF COL. 4 NEEDING REMODELING (6) | PERCENTAGE OF COL. 4 NEEDING REPLACE- MENT (7) | INSTRUCT. SPACE NEEDED IN CLINICAL AREAS (POST-CON) (8) |
|---|--|---|---|--|---|---|---|---|
| TOTAL | 120 | 742 | 85 | 7 | 100 | 0 | 0 | 5 |
| NUMBER OF SCHOOLS | 10 | 10 | 10 | 10 | 3 | 3 | 3 | 10 |
| MEAN | 12 | 74 | 8 | 1 | 100 | 0 | 0 | 0 |
| HIGH | 120 | 240 | 35 | 4 | 100 | 0 | 0 | 4 |
| LOW | 0 | 20 | 0 | 0 | 100 | 0 | 0 | 0 |
| 065 | 0 | 96 | 15 | 0 | | | | 0 |
| 072 | 120 | 240 | 35 | 4 | 100 | 0 | 0 | 1 |
| 101 | 0 | 26 | 4 | 0 | | | | 0 |
| 211 | 0 | 121 | 0 | 2 | 100 | 0 | 0 | 0 |
| 235 | 0 | 64 | 9 | 0 | | | | 0 |
| 281 | 0 | 48 | 5 | 0 | | | | 0 |
| 334 | 0 | 54 | 13 | 0 | | | | 0 |
| 634 | 0 | 43 | 0 | 0 | | | | 0 |
| 892 | 0 | 30 | 4 | 1 | 100 | 0 | 0 | 0 |
| 933 | 0 | 20 | 0 | 0 | | | | 4 |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | | | | | 65 | 65 | 65 | 0 |
| | | | | | 101 | 101 | 101 | |
| | | | | | 235 | 235 | 235 | |
| | | | | | 281 | 281 | 281 | |
| | | | | | 334 | 334 | 334 | |
| | | | | | 634 | 634 | 634 | |
| | | | | | 933 | 933 | 933 | |

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TABLE J,20

INSTRUCTION RESOURCES IN CLINICAL AREAS

OSTEOPATHY

| | NUMBER OF TEACHING BEDS RE- PORTED (1) | NUMBER OF AMBULATORY PATIENT STATIONS (2) | NASF (000) OF "ONSITE PATIENT CARE" FACILITIES (3) | NASF (000) OF IN- STRUCTION- AL SPACE (EXCL. PAY, CARE AREA) (4) | PERCENTAGE OF COL. 4 CONSIDERED SATIS- FACTORY (5) | PERCENTAGE OF COL. 4 NEEDING REMODELING (6) | PERCENTAGE OF COL. 4 NEEDING REPLACE- MENT (7) | INSTRUCT. SPACE NEEDED IN CLINICAL AREAS (POST-CON) (8) |
|---|--|---|---|--|---|---|---|---|
| TOTAL | 8739 | 390 | 218 | 61 | 90 | 0 | 5 | 0 |
| NUMBER OF SCHOOLS | 5 | 5 | 5 | 5 | 3 | 3 | 3 | 5 |
| MEAN | 1748 | 78 | 44 | 12 | 62 | 0 | 35 | 0 |
| HIGH | 4028 | 141 | 143 | 39 | 100 | 0 | 100 | 0 |
| LOW | 145 | 9 | 0 | 0 | 0 | 0 | 0 | 0 |
| 033 | 4028 | 141 | 0 | 0 | | | | 0 |
| 062 | 294 | 54 | 143 | 0 | | | | 0 |
| 293 | 930 | 45 | 0 | 21 | 100 | 0 | 0 | 0 |
| 303 | 3342 | 141 | 74 | 39 | 87 | 0 | 5 | 0 |
| 402 | 145 | 9 | 1 | 1 | 0 | 0 | 100 | 0 |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | | | | | 33 62 | 33 62 | 33 62 | |

TABLE J.21

INSTRUCTION RESOURCES IN CLINICAL AREAS

PHARMACY

| | NUMBER OF TEACHING BEDS RE- PORTED (1) | NUMBER OF AMBULATORY PATIENT STATIONS (2) | NASF (000) OF "ONSITE PATIENT CARE" FACILITIES (3) | NASF (000) OF IN- STRUCTION- AL SPACE (EXCL.PAT. CARE AREA) (4) | PERCENTAGE OF COL.4 CONSIDERED SATIS- FACTORY (5) | PERCENTAGE OF COL.4 NEEDING REMODELING (6) | PERCENTAGE OF COL.4 NEEDING REPLACE- MENT (7) | INSTRUCT. SPACE NEEDED IN CLINICAL AREAS (POST-CON) (8) |
|-------------------|--|---|---|---|--|--|--|---|
| TOTAL | 38011 | 1011 | 3 | 244 | 68 | 18 | 8 | 88 |
| NUMBER OF SCHOOLS | 64 | 64 | 64 | 64 | 29 | 29 | 29 | 54 |
| MEAN | 594 | 16 | 0 | 4 | 70 | 18 | 6 | 1 |
| HIGH | 5419 | 123 | 1 | 48 | 100 | 100 | 100 | 15 |
| LOW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 005 | 12 | 0 | 0 | 0 | | | | 0 |
| 011 | 175 | 0 | 0 | 0 | | | | 0 |
| 041 | 0 | 0 | 0 | 0 | | | | 0 |
| 052 | 70 | 2 | 1 | 0 | | | | 0 |
| 125 | 1154 | 34 | 0 | 12 | 75 | 42 | 0 | 2 |
| 143 | 110 | 101 | 0 | 2 | 100 | 0 | 0 | 0 |
| 144 | 1410 | 5 | 0 | 11 | 45 | 45 | 9 | 5 |
| 151 | 120 | 26 | 0 | 6 | 100 | 0 | 0 | 0 |
| 161 | 120 | 10 | 0 | 3 | 100 | 0 | 0 | 0 |
| 195 | 334 | 14 | 0 | 0 | | | | 0 |
| 204 | 315 | 7 | 0 | 20 | 80 | 20 | 0 | 5 |
| 213 | 3111 | 5 | 0 | 3 | 100 | 0 | 0 | 0 |
| 245 | 0 | 0 | 0 | 0 | | | | 0 |
| 262 | 335 | 37 | 0 | 1 | 100 | 0 | 0 | 7 |
| 263 | 280 | 6 | 0 | 0 | | | | 0 |
| 265 | 0 | 0 | 0 | 0 | | | | 0 |
| 274 | 2589 | 52 | 1 | 1 | 100 | 0 | 0 | 0 |
| 313 | 140 | 120 | 0 | 0 | | | | 0 |
| 344 | 2621 | 88 | 0 | 31 | 71 | 19 | 10 | 9 |
| 375 | 195 | 15 | 0 | 0 | | | | 0 |
| 382 | 126 | 0 | 0 | 1 | 100 | 0 | 0 | 0 |
| 384 | 192 | 0 | 0 | 2 | 0 | 0 | 0 | 0 |
| 403 | 400 | 5 | 0 | 2 | 50 | 50 | 0 | 6 |
| 404 | 15 | 0 | 0 | 0 | | | | 0 |
| 422 | 700 | 0 | 0 | 0 | | | | 0 |
| 453 | 0 | 0 | 0 | 0 | | | | 0 |
| 454 | 1130 | 10 | 0 | 4 | 25 | 75 | 0 | 7 |
| 451 | 0 | 0 | 0 | 0 | | | | 0 |
| 465 | 350 | 4 | 0 | 2 | 0 | 100 | 0 | 0 |
| 482 | 405 | 21 | 0 | 0 | | | | 2 |
| 493 | 1016 | 0 | 0 | 1 | 0 | 0 | 100 | 0 |
| 511 | 600 | 20 | 0 | 7 | 100 | 0 | 0 | 0 |
| 514 | 634 | 18 | 0 | 1 | 100 | 0 | 0 | 0 |
| 523 | 339 | 123 | 0 | 1 | 100 | 0 | 0 | 0 |
| 532 | 0 | 0 | 0 | 0 | | | | 0 |
| 535 | 0 | 0 | 0 | 0 | | | | 0 |
| 571 | 37 | 4 | 0 | 4 | 100 | 0 | 0 | 1 |
| 572 | 421 | 0 | 0 | 0 | | | | 3 |
| 585 | 440 | 95 | 0 | 29 | 76 | 24 | 0 | 0 |
| 594 | 150 | 5 | 0 | 3 | 100 | 0 | 0 | 4 |
| 621 | 404 | 3 | 0 | 48 | 56 | 17 | 29 | 6 |
| 645 | 200 | 0 | 0 | 0 | | | | 0 |
| 663 | 2329 | 0 | 0 | 0 | | | | 0 |
| 668 | 12 | 0 | 0 | 0 | | | | 0 |

TABLE J.21 (Continued)

INSTRUCTION RESOURCES IN CLINICAL AREAS

PHARMACY

(CONTINUED)

| | NUMBER OF TEACHING BEDS RE- PORTED (1) | NUMBER OF AMBULATORY PATIENT STATIONS (2) | NASF (000) OF "ONSITE PATIENT CARE" FACILITIES (3) | NASF (000) OF IN- STRUCTION- AL SPACE (EXCL. PAT. CARE AREA) (4) | PERCENTAGE OF COL.4 CONSIDERED SATIS- FACTORY (5) | PERCENTAGE OF COL.4 NEEDING REMODELING (6) | PERCENTAGE OF COL.4 NEEDING REPLACE- MENT (7) | INSTRUCT. SPACE NEEDED IN CLINICAL AREAS (POST-CON) (8) |
|-----|--|---|---|--|--|--|--|---|
| 684 | 720 | 0 | 0 | 0 | | | | 0 |
| 692 | 60 | 2 | 0 | 0 | | | | 3 |
| 693 | 0 | 30 | 0 | 1 | 0 | 100 | 0 | 1 |
| 703 | 0 | 0 | 0 | 0 | | | | 0 |
| 724 | 661 | 0 | 0 | 0 | | | | 1 |
| 742 | 0 | 0 | 0 | 0 | | | | 0 |
| 753 | 0 | 0 | 0 | 0 | | | | 0 |
| 801 | 0 | 0 | 0 | 0 | | | | 0 |
| 812 | 200 | 0 | 0 | 1 | 100 | 0 | 0 | 1 |
| 824 | 1789 | 0 | 0 | 0 | | | | 0 |
| 841 | 0 | 15 | 0 | 18 | 89 | 11 | 0 | 0 |
| 874 | 0 | 0 | 0 | 0 | | | | 0 |
| 883 | 0 | 0 | 0 | 0 | | | | 0 |
| 902 | 828 | 2 | 0 | 0 | | | | 0 |
| 922 | 0 | 0 | 0 | 0 | | | | 0 |
| 923 | 822 | 0 | 0 | 7 | 71 | 14 | 14 | 15 |
| 971 | 2258 | 73 | 1 | 8 | 100 | 0 | 0 | 0 |
| 982 | 5419 | 0 | 0 | 0 | | | | 0 |
| 984 | 1540 | 56 | 0 | 14 | 0 | 0 | 0 | 0 |
| 991 | 783 | 3 | 0 | 0 | | | | 2 |

SCHOOLS FOR WHICH
VALUES ARE UNDEFINED

| | | |
|-----|-----|-----|
| 5 | 5 | 5 |
| 11 | 11 | 11 |
| 41 | 41 | 41 |
| 52 | 52 | 52 |
| 195 | 195 | 195 |
| 245 | 245 | 245 |
| 263 | 263 | 263 |
| 265 | 265 | 265 |
| 313 | 313 | 313 |
| 375 | 375 | 375 |
| 404 | 404 | 404 |
| 422 | 422 | 422 |
| 453 | 453 | 453 |
| 461 | 461 | 461 |
| 482 | 482 | 482 |
| 532 | 532 | 532 |
| 535 | 535 | 535 |
| 572 | 572 | 572 |
| 645 | 645 | 645 |
| 663 | 663 | 663 |
| 665 | 665 | 665 |
| 684 | 684 | 684 |
| 692 | 692 | 692 |
| 703 | 703 | 703 |
| 724 | 724 | 724 |
| 742 | 742 | 742 |
| 753 | 753 | 753 |
| 801 | 801 | 801 |
| 824 | 824 | 824 |
| 874 | 874 | 874 |
| 883 | 883 | 883 |
| 902 | 902 | 902 |
| 922 | 922 | 922 |
| 982 | 982 | 982 |
| 991 | 991 | 991 |

TABLE J.22

INSTRUCTION RESOURCES IN CLINICAL AREAS

PODIATRY

| | NUMBER OF TEACHING BEDS RE- PORTED (1) | NUMBER OF AMBULATORY PATIENT STATIONS (2) | NASF (000) OF "ONSITE PATIENT CARE" FACILITIES (3) | NASF (000) OF IN- STRUCTION- AL SPACE (EXCL. PAT. CARE AREA) (4) | PERCENTAGE OF COL.4 CONSIDERED SATIS- FACTORY (5) | PERCENTAGE OF COL.4 NEEDING REMODELING (6) | PERCENTAGE OF COL.4 NEEDING REPLACE- MENT (7) | INSTRUCT. SPACE NEEDED IN CLINICAL AREAS (POST-CON) (8) |
|---|--|---|---|--|--|--|--|---|
| TOTAL | 4997 | 351 | 31 | 1 | 0 | 0 | 100 | 5 |
| NUMBER OF SCHOOLS | 5 | 5 | 5 | 5 | 1 | 1 | 1 | 5 |
| MEAN | 999 | 70 | 6 | 0 | 0 | 0 | 100 | 1 |
| HIGH | 2446 | 145 | 18 | 1 | 0 | 0 | 100 | 5 |
| LOW | 28 | 22 | 0 | 0 | 0 | 0 | 100 | 0 |
| 082 | 350 | 68 | 18 | 0 | | | | 0 |
| 191 | 28 | 22 | 0 | 1 | 0 | 0 | 100 | 5 |
| 264 | 2446 | 55 | 5 | 0 | | | | 0 |
| 644 | 1490 | 145 | 3 | 0 | | | | 0 |
| 833 | 683 | 61 | 5 | 0 | | | | 0 |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | | | | | 82 | 82 | 82 | |
| | | | | | 264 | 264 | 264 | |
| | | | | | 644 | 644 | 644 | |
| | | | | | 833 | 833 | 833 | |

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TABLE J.23

INSTRUCTION RESOURCES IN CLINICAL AREAS

PUBLIC HEALTH

| | NUMBER OF TEACHING BEDS RE- PORTED (1) | NUMBER OF AMBULATORY PATIENT STATIONS (2) | NASF (000) OF "ONSITE PATIENT CARE" FACILITIES (3) | NASF (000) OF IN- STRUCTION- AL SPACE (EXCL. PAT. CARE AREA) (4) | PERCENTAGE OF COL. 4 CONSIDERED SATIS- FACTORY (5) | PERCENTAGE OF COL. 4 NEEDING REMODELING (6) | PERCENTAGE OF COL. 4 NEEDING REPLACE- MENT (7) | INSTRUCT. SPACE NEEDED IN CLINICAL AREAS (POST-CON) (8) |
|---|--|---|---|--|---|---|---|---|
| TOTAL | 230 | 23 | 1 | 5 | 0 | 0 | 0 | 0 |
| NUMBER OF SCHOOLS | 13 | 13 | 13 | 13 | 1 | 1 | 1 | 13 |
| MEAN | 18 | 2 | 0 | 0 | 0 | 0 | 0 | 0 |
| HIGH | 230 | 20 | 1 | 5 | 0 | 0 | 0 | 0 |
| LOW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 032 | 0 | 0 | 0 | 0 | | | | 0 |
| 154 | 0 | 0 | 0 | 0 | | | | 0 |
| 223 | 0 | 0 | 0 | 0 | | | | 0 |
| 251 | 0 | 3 | 1 | 0 | | | | 0 |
| 272 | 0 | 0 | 0 | 0 | | | | 0 |
| 291 | 0 | 0 | 0 | 0 | | | | 0 |
| 381 | 0 | 0 | 0 | 0 | | | | 0 |
| 494 | 230 | 20 | 0 | 5 | 0 | 0 | 0 | 0 |
| 681 | 0 | 0 | 0 | 0 | | | | 0 |
| 762 | 0 | 0 | 0 | 0 | | | | 0 |
| 763 | 0 | 0 | 0 | 0 | | | | 0 |
| 834 | 0 | 0 | 0 | 0 | | | | 0 |
| 882 | 0 | 0 | 0 | 0 | | | | 0 |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | | | | | 32 | 32 | 32 | |
| | | | | | 154 | 154 | 154 | |
| | | | | | 223 | 223 | 223 | |
| | | | | | 251 | 251 | 251 | |
| | | | | | 272 | 272 | 272 | |
| | | | | | 291 | 291 | 291 | |
| | | | | | 381 | 381 | 381 | |
| | | | | | 681 | 681 | 681 | |
| | | | | | 762 | 762 | 762 | |
| | | | | | 763 | 763 | 763 | |
| | | | | | 834 | 834 | 834 | |
| | | | | | 882 | 882 | 882 | |

TABLE J.24

INSTRUCTION RESOURCES IN CLINICAL AREAS

VETERINARY MEDICINE

| | NUMBER OF TEACHING BEDS RE- PORTED (1) | NUMBER OF AMBULATORY PATIENT STATIONS (2) | NASF (000) OF "ONSITE PATIENT CARE" FACILITIES (3) | NASF (000) OF IN- STRUCTION- AL SPACE (EXCL. PAT. CARE AREA) (4) | PERCENTAGE OF COL.4 CONSIDERED SATIS- FACTORY (5) | PERCENTAGE OF COL.4 NEEDING REMODELING (6) | PERCENTAGE OF COL.4 NEEDING REPLACE- MENT (7) | INSTRUCT, SPACE NEEDED IN CLINICAL AREAS (POST-CON) (8) |
|---|--|---|---|--|--|--|--|---|
| TOTAL | 3406 | 388 | 274 | 288 | 84 | 9 | 6 | 101 |
| NUMBER OF SCHOOLS | 19 | 19 | 19 | 19 | 8 | 8 | 8 | 19 |
| MEAN | 179 | 20 | 14 | 15 | 87 | 8 | 5 | 10 |
| HIGH | 405 | 133 | 54 | 113 | 100 | 58 | 42 | 101 |
| LOW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 002 | 201 | 13 | 31 | 0 | | | | 0 |
| 021 | 253 | 15 | 0 | 37 | 95 | 5 | 0 | 51 |
| 043 | 234 | 18 | 0 | 113 | 100 | 0 | 0 | 0 |
| 061 | 93 | 10 | 11 | 0 | | | | 0 |
| 165 | 255 | 26 | 0 | 15 | 100 | 0 | 0 | 0 |
| 243 | 149 | 8 | 24 | 0 | | | | 0 |
| 292 | 334 | 12 | 46 | 0 | | | | 0 |
| 321 | 405 | 36 | 0 | 9 | 100 | 0 | 0 | 5 |
| 354 | 309 | 19 | 54 | 0 | | | | 0 |
| 363 | 148 | 12 | 0 | 22 | 100 | 0 | 0 | 101 |
| 392 | 195 | 133 | 0 | 17 | 100 | 0 | 0 | 6 |
| 424 | 98 | 17 | 18 | 0 | | | | 0 |
| 442 | 158 | 12 | 0 | 43 | 0 | 58 | 42 | 12 |
| 502 | 0 | 0 | 5 | 0 | | | | 0 |
| 545 | 150 | 7 | 52 | 0 | | | | 0 |
| 551 | 215 | 40 | 33 | 0 | | | | 0 |
| 622 | 0 | 0 | 0 | 0 | | | | 0 |
| 784 | 209 | 10 | 0 | 32 | 100 | 0 | 0 | 6 |
| 851 | 0 | 0 | 0 | 0 | | | | 0 |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | | | | | 2 | 2 | 2 | |
| | | | | | 61 | 61 | 61 | |
| | | | | | 243 | 243 | 243 | |
| | | | | | 292 | 292 | 292 | |
| | | | | | 354 | 354 | 354 | |
| | | | | | 424 | 424 | 424 | |
| | | | | | 502 | 502 | 502 | |
| | | | | | 545 | 545 | 545 | |
| | | | | | 551 | 551 | 551 | |
| | | | | | 622 | 622 | 622 | |
| | | | | | 851 | 851 | 851 | |

FOOTNOTES
INSTRUCTION RESOURCES IN CLINICAL AREAS

1. The figure displayed represents the number of teaching beds reported as available for use in either "on-site patient care facilities", owned and major affiliated hospitals, or "minor" affiliates. For schools of veterinary medicine, substitute "Animal Holding Units" for "beds".
2. The number displayed is obtained by adding the reported numbers of ambulatory patient stations available in "on-site patient care" facilities, and affiliated hospitals and clinics.
3. The figure displayed represents those patient care areas which are considered by respondent to be a physically integrated portion of the school's "allocated" facilities. "On-site patient care" facilities were found to be the primary clinically-oriented facilities resource for schools of dentistry, optometry, and podiatry.
4. The figure displayed represents the sum, over all owned and major affiliated hospitals (reported as physically separated from basic biological sciences instruction facilities), of classroom, class laboratory, research and research training, and other instructional facilities.
5. The sum of columns 5-7 will occasionally not sum to 100% due to round-off error, and data errors uncorrectable at the time of this writing.
8. Each figure displayed represents the NASF (in 000's) of nonclinical instruction facilities felt to be needed in (physically separate) owned and major affiliated hospitals, following the completion of hospital-related ongoing construction and remodeling efforts.

TABLE J.25

USAGE OF FACILITIES - SECTION 1

DENTISTRY

| | FULL-TIME EQUIVALENT ENROLLMENT (1) | ALLOCATED NASF PER STU- DENT (2) | ALLOCATED STUDENT STATIONS, AND CLASS- ROOMS AND LAB STA- TIONS PER STUDENT CLASSLABS (3) | ALLOCATED CLASSROOM AND CLASS- ROOMS PER STUDENT (4) | NUMBER OF JOINT-USE STATIONS UTILIZED (5) | STUDENT CONTACT- HOURS SPENT IN CLSRMS AND CLASSLABS (6) | STUDENT CONTACT- HOURS SPENT IN PATIENT AREAS (7) |
|-------------------|--|--|--|---|---|--|---|
| TOTAL | 18546 | 131 | 35563 | 1.92 | 29906 | 160539 | 128670 |
| NUMBER OF SCHOOLS | 53 | 50 | 53 | 50 | 53 | 53 | 53 |
| MEAN | 350 | 202 | 671 | 2.19 | 564 | 3029 | 2428 |
| HIGH | 792 | 1750 | 2169 | 11.00 | 2048 | 5830 | 7300 |
| LOW | 0 | 0 | 0 | 0.00 | 0 | 0 | 0 |
| 081 | 303 | 145 | 356 | 1.17 | 1726 | 3979 | 2598 |
| 085 | 458 | 50 | 538 | 1.17 | 695 | 4493 | 2796 |
| 102 | 558 | 102 | 1214 | 2.18 | 165 | 5250 | 6506 |
| 124 | 328 | 232 | 911 | 2.78 | 392 | 3750 | 2163 |
| 132 | 396 | 78 | 587 | 1.48 | 160 | 3034 | 132 |
| 135 | 479 | 140 | 1573 | 3.28 | 400 | 2986 | 1806 |
| 192 | 24 | 1750 | 166 | 6.92 | 0 | 1340 | 100 |
| 193 | 535 | 73 | 516 | 0.96 | 1087 | 3160 | 3860 |
| 231 | 316 | 66 | 604 | 1.91 | 875 | 3285 | 2157 |
| 242 | 541 | 128 | 280 | 0.52 | 1640 | 4140 | 3720 |
| 244 | 376 | 223 | 1114 | 2.96 | 0 | 3538 | 3012 |
| 305 | 522 | 188 | 735 | 1.41 | 0 | 2672 | 1958 |
| 314 | 648 | 123 | 2169 | 3.35 | 180 | 5830 | 2970 |
| 335 | 62 | 129 | 144 | 2.32 | 610 | 2444 | 754 |
| 352 | 583 | 99 | 1200 | 2.06 | 1023 | 4356 | 3638 |
| 361 | 414 | 118 | 586 | 1.42 | 1143 | 2915 | 4354 |
| 383 | 655 | 102 | 959 | 1.46 | 0 | 2204 | 3219 |
| 423 | 249 | 112 | 492 | 1.98 | 63 | 3461 | 3536 |
| 445 | 419 | 138 | 938 | 2.24 | 178 | 2865 | 1840 |
| 462 | 359 | 134 | 452 | 1.26 | 1440 | 3584 | 3373 |
| 471 | 457 | 123 | 1343 | 2.94 | 0 | 2938 | 4030 |
| 473 | 223 | 58 | 331 | 1.48 | 821 | 3751 | 2753 |
| 474 | 24 | 1000 | 264 | 11.00 | 0 | 961 | 220 |
| 491 | 549 | 117 | 1435 | 2.61 | 0 | 2304 | 2041 |
| 513 | 272 | 118 | 726 | 2.65 | 0 | 3508 | 2187 |
| 552 | 234 | 124 | 427 | 1.82 | 1337 | 2574 | 2043 |
| 564 | 348 | 161 | 1210 | 3.48 | 0 | 5706 | 2398 |
| 565 | 249 | 48 | 121 | 0.49 | 2048 | 2880 | 1516 |
| 591 | 0 | | 0 | | 0 | 0 | 0 |
| 592 | 326 | 160 | 718 | 2.20 | 180 | 4442 | 1570 |
| 603 | 249 | 129 | 484 | 1.94 | 120 | 2066 | 2048 |
| 605 | 560 | 75 | 1999 | 3.57 | 0 | 2788 | 1938 |
| 633 | 308 | 162 | 863 | 2.80 | 0 | 3650 | 2550 |
| 641 | 97 | 691 | 283 | 2.92 | 824 | 4138 | 2170 |
| 642 | 236 | 369 | 584 | 2.47 | 0 | 2623 | 2044 |
| 701 | 474 | 105 | 839 | 1.77 | 1751 | 2287 | 2548 |
| 704 | 567 | 65 | 450 | 0.79 | 0 | 3082 | 2722 |
| 715 | 0 | | 0 | | 0 | 0 | 0 |
| 733 | 252 | 87 | 258 | 1.02 | 249 | 2713 | 2341 |
| 751 | 392 | 66 | 495 | 1.26 | 1005 | 2992 | 1662 |
| 764 | 651 | 135 | 1189 | 1.83 | 374 | 2509 | 2401 |
| 792 | 542 | 260 | 736 | 1.36 | 0 | 3540 | 3237 |
| 804 | 505 | 145 | 1596 | 3.16 | 1230 | 2940 | 2360 |
| 821 | 26 | 423 | 56 | 2.13 | 776 | 2714 | 1704 |

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TABLE J.26

USAGE OF FACILITIES - SECTION 1

MEDICINE

| | FULL-TIME EQUIVALENT ENROLLMENT (1) | ALLOCATED NASF PER STU- DENT (2) | ALLOCATED STUDENT STATIONS, AND CLASS- ROOMS AND CLASSLABS (3) | ALLOCATED CLASSROOM LAB STA- TIONS PER STUDENT (4) | NUMBER OF JOINT-USE STATIONS UTILIZED (5) | STUDENT CONTACT- HOURS SPENT IN CLSRMS AND CLASSLABS (6) | STUDENT CONTACT- HOURS SPENT IN PATIENT AREAS (7) |
|-------------------|--|--|---|---|---|--|---|
| TOTAL | 46888 | 394 | 99850 | 2.13 | 29136 | 255719 | 277111 |
| NUMBER OF SCHOOLS | 95 | 94 | 95 | 94 | 95 | 95 | 95 |
| MEAN | 494 | 433 | 1051 | 2.20 | 307 | 2692 | 2917 |
| HIGH | 1571 | 1738 | 3220 | 8.28 | 3444 | 7596 | 8400 |
| LOW | 0 | 0 | 0 | 0.00 | 0 | 0 | 0 |
| 022 | 212 | 491 | 756 | 3.57 | 353 | 5684 | 384 |
| 023 | 339 | 162 | 90 | 0.27 | 375 | 1999 | 4554 |
| 024 | 453 | 419 | 1354 | 2.99 | 0 | 2802 | 1677 |
| 025 | 146 | 322 | 250 | 1.71 | 156 | 2851 | 0 |
| 054 | 597 | 873 | 1947 | 3.26 | 0 | 2638 | 1995 |
| 055 | 337 | 504 | 890 | 2.64 | 0 | 3003 | 2272 |
| 074 | 578 | 638 | 1792 | 3.10 | 0 | 3350 | 492 |
| 091 | 352 | 273 | 8 | 0.02 | 439 | 1800 | 2000 |
| 094 | 425 | 1179 | 679 | 1.60 | 0 | 3325 | 2314 |
| 095 | 585 | 217 | 616 | 1.05 | 3444 | 2351 | 2640 |
| 112 | 603 | 294 | 1020 | 1.69 | 38 | 3700 | 3260 |
| 121 | 25 | 720 | 61 | 2.44 | 0 | 1120 | 0 |
| 133 | 1040 | 478 | 3220 | 3.10 | 0 | 3620 | 3380 |
| 134 | 575 | 494 | 1969 | 3.42 | 0 | 2245 | 2750 |
| 141 | 324 | 824 | 771 | 2.38 | 0 | 1780 | 5260 |
| 142 | 736 | 323 | 1481 | 2.01 | 266 | 1914 | 3992 |
| 145 | 546 | 463 | 1457 | 2.67 | 0 | 3254 | 4078 |
| 152 | 419 | 60 | 214 | 0.51 | 0 | 1517 | 4357 |
| 153 | 40 | 225 | 80 | 2.00 | 0 | 1474 | 116 |
| 172 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 184 | 379 | 425 | 297 | 0.78 | 0 | 1869 | 560 |
| 203 | 865 | 455 | 2431 | 2.81 | 1960 | 5200 | 4000 |
| 212 | 415 | 0 | 0 | 0.00 | 845 | 1283 | 181 |
| 215 | 61 | 1738 | 505 | 8.28 | 36 | 2850 | 1600 |
| 222 | 365 | 200 | 785 | 2.15 | 0 | 2181 | 3758 |
| 224 | 176 | 335 | 642 | 3.65 | 0 | 2853 | 128 |
| 241 | 514 | 282 | 2326 | 4.53 | 370 | 3230 | 2045 |
| 252 | 1211 | 230 | 1023 | 0.84 | 1731 | 0 | 0 |
| 254 | 617 | 480 | 1345 | 2.18 | 0 | 2842 | 0 |
| 275 | 601 | 468 | 1196 | 1.99 | 0 | 2846 | 2692 |
| 283 | 489 | 434 | 1368 | 2.80 | 0 | 3244 | 2426 |
| 295 | 786 | 407 | 2300 | 2.93 | 100 | 3129 | 2406 |
| 311 | 395 | 273 | 590 | 1.49 | 0 | 4959 | 2722 |
| 315 | 129 | 535 | 416 | 3.22 | 705 | 1859 | 1403 |
| 324 | 1017 | 252 | 1849 | 1.82 | 0 | 4898 | 7766 |
| 333 | 663 | 327 | 1975 | 2.98 | 380 | 2718 | 3852 |
| 341 | 310 | 294 | 253 | 0.82 | 0 | 3084 | 8400 |
| 345 | 469 | 463 | 894 | 1.91 | 0 | 3934 | 3360 |
| 362 | 1571 | 129 | 2042 | 1.30 | 0 | 1952 | 3363 |
| 371 | 746 | 484 | 2800 | 3.75 | 0 | 2564 | 3736 |
| 374 | 615 | 686 | 2750 | 4.47 | 0 | 3173 | 3416 |
| 393 | 84 | 310 | 96 | 1.14 | 150 | 0 | 5920 |
| 395 | 301 | 502 | 896 | 2.98 | 0 | 1535 | 5096 |
| 401 | 314 | 557 | 436 | 1.39 | 0 | 5118 | 2837 |

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TABLE J.26 (Continued)

MEDICINE

USAGE OF FACILITIES - SECTION 1

(CONTINUED)

| | FULL-TIME EQUIVALENT ENROLLMENT (1) | ALLOCATED NASF PER STU- DENT (2) | ALLOCATED STUDENT STATIONS, CLASSROOMS AND CLASSLABS (3) | ALLOCATED CLASSROOM AND CLASS- LAB STA- TIONS PER STUDENT (4) | NUMBER OF JOINT-USE STATIONS UTILIZED (5) | STUDENT CONTACT- HOURS SPENT IN CLSRMS AND CLASSLABS (6) | STUDENT CONTACT- HOURS SPENT IN PATIENT AREAS (7) |
|-----|--|--|--|---|---|--|---|
| 415 | 527 | 529 | 1433 | 2.72 | 0 | 3092 | 2901 |
| 433 | 573 | 771 | 1610 | 2.81 | 0 | 7596 | 3096 |
| 455 | 767 | 115 | 108 | 0.14 | 1067 | 2035 | 47 |
| 472 | 645 | 719 | 2878 | 4.46 | 0 | 2280 | 3858 |
| 483 | 418 | 158 | 620 | 1.46 | 426 | 2638 | 4193 |
| 484 | 822 | 187 | 901 | 1.10 | 0 | 1719 | 2622 |
| 522 | 686 | 293 | 1512 | 2.20 | 0 | 2585 | 3410 |
| 531 | 446 | 901 | 989 | 2.22 | 0 | 1975 | 5800 |
| 543 | 695 | 206 | 1013 | 1.46 | 253 | 4918 | 4600 |
| 562 | 447 | 300 | 293 | 0.66 | 1676 | 3110 | 4130 |
| 563 | 93 | 323 | 273 | 2.94 | 0 | 1178 | 210 |
| 574 | 473 | 617 | 1433 | 3.03 | 0 | 3710 | 2197 |
| 575 | 314 | 172 | 804 | 2.56 | 2048 | 2660 | 4466 |
| 583 | 150 | 727 | 386 | 2.57 | 0 | 3715 | 3100 |
| 602 | 590 | 164 | 150 | 0.25 | 630 | 2197 | 2928 |
| 613 | 447 | 360 | 670 | 1.50 | 0 | 2119 | 4350 |
| 624 | 358 | 372 | 628 | 1.75 | 0 | 4215 | 2342 |
| 635 | 734 | 443 | 589 | 0.75 | 749 | 1987 | 4465 |
| 651 | 161 | 404 | 0 | 0.00 | 897 | 1994 | 4400 |
| 652 | 566 | 253 | 1376 | 2.43 | 0 | 2462 | 2234 |
| 653 | 234 | 756 | 420 | 1.79 | 0 | 2353 | 3960 |
| 664 | 283 | 777 | 728 | 2.57 | 0 | 2012 | 3855 |
| 671 | 395 | 1035 | 702 | 1.78 | 0 | 2290 | 1690 |
| 672 | 154 | 175 | 52 | 0.34 | 0 | 3144 | 3198 |
| 683 | 243 | 473 | 726 | 2.99 | 0 | 3374 | 5448 |
| 711 | 705 | 68 | 664 | 0.94 | 1751 | 3496 | 3894 |
| 714 | 860 | 231 | 1012 | 1.18 | 0 | 3094 | 2212 |
| 731 | 522 | 372 | 2494 | 4.78 | 0 | 3432 | 995 |
| 743 | 698 | 464 | 3177 | 4.55 | 46 | 1307 | 4320 |
| 744 | 863 | 473 | 2615 | 3.26 | 0 | 2749 | 2940 |
| 761 | 519 | 254 | 1005 | 1.94 | 0 | 3112 | 3284 |
| 772 | 542 | 908 | 1522 | 2.81 | 0 | 0 | 0 |
| 774 | 644 | 446 | 1369 | 2.13 | 0 | 1883 | 5282 |
| 783 | 393 | 746 | 1769 | 4.50 | 0 | 2025 | 3085 |
| 802 | 703 | 256 | 1192 | 1.70 | 0 | 2504 | 4360 |
| 813 | 238 | 269 | 177 | 0.74 | 0 | 3272 | 3322 |
| 823 | 615 | 358 | 1400 | 2.28 | 0 | 4349 | 3325 |
| 831 | 421 | 444 | 592 | 1.41 | 630 | 2975 | 4237 |
| 863 | 751 | 269 | 1691 | 2.25 | 0 | 2750 | 6090 |
| 864 | 479 | 232 | 2085 | 4.35 | 105 | 3022 | 1774 |
| 872 | 637 | 619 | 2230 | 3.50 | 0 | 0 | 0 |
| 891 | 79 | 418 | 184 | 2.33 | 0 | 1802 | 3650 |
| 903 | 671 | 294 | 1553 | 2.31 | 2000 | 2064 | 0 |
| 904 | 115 | 957 | 476 | 4.14 | 70 | 2438 | 2300 |
| 921 | 448 | 511 | 1591 | 3.55 | 0 | 4237 | 4865 |
| 951 | 567 | 286 | 422 | 0.74 | 1442 | 3081 | 4044 |
| 952 | 624 | 120 | 0 | 0.00 | 1099 | 2690 | 2010 |
| 953 | 979 | 297 | 1569 | 1.60 | 0 | 2680 | 2400 |
| 954 | 531 | 288 | 0 | 0.00 | 2099 | 3084 | 3543 |
| 962 | 64 | 422 | 96 | 1.50 | 0 | 1943 | 1450 |
| 973 | 524 | 227 | 601 | 1.15 | 800 | 2624 | 2641 |

SCHOOLS FOR WHICH
VALUES ARE UNDEFINED

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TABLE J.27

USAGE OF FACILITIES - SECTION 1

OPTOMETRY

| | FULL-TIME EQUIVALENT ENROLLMENT (1) | ALLOCATED NASF PER STU- DENT (2) | ALLOCATED STUDENT STATIONS, AND CLASS- ROOMS AND CLASSLABS (3) | ALLOCATED CLASSROOM AND CLASS- LAB STA- TIONS PER STUDENT (4) | NUMBER OF JOINT-USE STATIONS UTILIZED (5) | STUDENT CONTACT- HOURS SPENT IN CLSRMS AND CLASSLABS (6) | STUDENT CONTACT- HOURS SPENT IN PATIENT AREAS (7) |
|-------------------|--|--|---|---|---|--|---|
| TOTAL | 2830 | 86 | 4100 | 1.45 | 2648 | 30993 | 12164 |
| NUMBER OF SCHOOLS | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| MEAN | 283 | 110 | 410 | 1.66 | 265 | 3099 | 1216 |
| HIGH | 515 | 347 | 911 | 5.33 | 1845 | 5060 | 2520 |
| LOW | 49 | 40 | 96 | 0.38 | 0 | 1880 | 70 |
| 065 | 515 | 76 | 820 | 1.59 | 0 | 2796 | 816 |
| 072 | 489 | 74 | 911 | 1.66 | 0 | 3522 | 936 |
| 101 | 87 | 126 | 120 | 1.38 | 460 | 3458 | 2520 |
| 211 | 260 | 131 | 437 | 1.68 | 0 | 2700 | 864 |
| 235 | 250 | 40 | 96 | 0.38 | 265 | 3162 | 1266 |
| 281 | 184 | 82 | 132 | 0.72 | 1845 | 2795 | 1140 |
| 334 | 220 | 64 | 177 | 0.80 | 138 | 5060 | 2042 |
| 634 | 491 | 96 | 816 | 1.66 | 0 | 2786 | 1190 |
| 892 | 285 | 70 | 330 | 1.16 | 0 | 2834 | 1320 |
| 933 | 49 | 347 | 261 | 5.33 | 0 | 1880 | 70 |

TABLE J.28

USAGE OF FACILITIES - SECTION 1

OSTEOPATHY

| | FULL-TIME EQUIVALENT ENROLLMENT (1) | ALLOCATED NASF PER STU- DENT (2) | ALLOCATED STUDENT STATIONS, AND CLASS- ROOMS AND LAB STA- TIONS PER STUDENT (3) | ALLOCATED CLASSROOM AND CLASS- ROOMS PER STUDENT (4) | NUMBER OF JOINT-USE STATIONS UTILIZED (5) | STUDENT CONTACT- HOURS SPENT IN CLSRMS AND CLASSLABS (6) | STUDENT CONTACT- HOURS SPENT IN PATIENT AREAS (7) |
|-------------------|--|--|---|---|---|--|---|
| TOTAL | 1818 | 124 | 3051 | 1.68 | 380 | 14391 | 13916 |
| NUMBER OF SCHOOLS | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| MEAN | 364 | 145 | 610 | 1.54 | 76 | 2378 | 2783 |
| HIGH | 497 | 267 | 1323 | 3.04 | 380 | 3933 | 4816 |
| LOW | 150 | 60 | 88 | 0.59 | 0 | 1800 | 1460 |
| 033 | 150 | 267 | 88 | 0.59 | 380 | 1800 | 1460 |
| 062 | 329 | 143 | 510 | 1.55 | 0 | 2500 | 2407 |
| 293 | 487 | 60 | 528 | 1.08 | 0 | 2970 | 2204 |
| 303 | 435 | 131 | 1323 | 3.04 | 0 | 3188 | 3027 |
| 402 | 417 | 127 | 602 | 1.44 | 0 | 3933 | 4816 |

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USAGE OF FACILITIES - SECTION 1

PHARMACY

| | FULL-TIME EQUIVALENT ENROLLMENT (1) | ALLOCATED NASF PER STU- DENT (2) | ALLOCATED STUDENT STATIONS, AND CLASS- ROOMS AND CLASSLABS (3) | ALLOCATED CLASSROOM AND CLASS- LAB STA- TIONS PER STUDENT (4) | NUMBER OF JOINT-USE STATIONS UTILIZED (5) | STUDENT CONTACT- HOURS SPENT IN CLSRMS AND CLASSLABS (6) | STUDENT CONTACT- HOURS SPENT IN PATIENT AREAS (7) |
|-------------------|--|--|--|---|---|--|---|
| TOTAL | 25628 | 79 | 30467 | 1.19 | 48013 | 206775 | 13162 |
| NUMBER OF SCHOOLS | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| MEAN | 400 | 85 | 476 | 1.25 | 750 | 3231 | 206 |
| HIGH | 842 | 225 | 1923 | 3.77 | 6700 | 9813 | 1350 |
| LOW | 112 | 20 | 6 | 0.00 | 0 | 1250 | 0 |
| 005 | 191 | 68 | 199 | 1.04 | 414 | 1856 | 0 |
| 011 | 282 | 85 | 247 | 0.88 | 303 | 5920 | 0 |
| 041 | 201 | 65 | 348 | 1.73 | 403 | 1680 | 0 |
| 052 | 203 | 113 | 422 | 2.08 | 0 | 2115 | 400 |
| 105 | 395 | 78 | 247 | 0.63 | 880 | 3500 | 0 |
| 143 | 555 | 34 | 314 | 0.57 | 0 | 3220 | 710 |
| 144 | 627 | 80 | 792 | 1.26 | 300 | 8348 | 0 |
| 151 | 273 | 51 | 72 | 0.26 | 6700 | 2126 | 400 |
| 181 | 185 | 76 | 198 | 1.07 | 319 | 2094 | 192 |
| 195 | 303 | 66 | 293 | 0.98 | 300 | 2690 | 180 |
| 204 | 524 | 59 | 1408 | 2.69 | 0 | 3090 | 1350 |
| 213 | 362 | 86 | 176 | 0.49 | 1681 | 3314 | 570 |
| 245 | 594 | 44 | 220 | 0.37 | 1630 | 3444 | 0 |
| 262 | 627 | 169 | 647 | 1.63 | 1739 | 3300 | 80 |
| 263 | 323 | 130 | 376 | 1.16 | 210 | 2192 | 0 |
| 265 | 751 | 44 | 231 | 0.31 | 1489 | 5328 | 0 |
| 294 | 576 | 35 | 884 | 1.53 | 968 | 2610 | 54 |
| 313 | 675 | 55 | 892 | 1.32 | 0 | 3000 | 0 |
| 344 | 469 | 109 | 287 | 0.61 | 395 | 3510 | 800 |
| 375 | 325 | 108 | 424 | 1.30 | 0 | 3312 | 138 |
| 382 | 747 | 107 | 619 | 0.83 | 150 | 3660 | 2 |
| 384 | 359 | 45 | 114 | 0.32 | 590 | 3158 | 0 |
| 403 | 326 | 55 | 220 | 0.67 | 650 | 3014 | 188 |
| 404 | 360 | 47 | 208 | 0.58 | 0 | 1280 | 6 |
| 422 | 323 | 31 | 252 | 0.78 | 1109 | 3072 | 176 |
| 453 | 157 | 64 | 108 | 0.69 | 175 | 3909 | 0 |
| 454 | 288 | 62 | 328 | 1.14 | 250 | 7010 | 600 |
| 461 | 589 | 71 | 1442 | 2.45 | 0 | 9813 | 0 |
| 465 | 282 | 99 | 723 | 2.56 | 804 | 2224 | 560 |
| 482 | 419 | 115 | 400 | 0.95 | 600 | 2736 | 240 |
| 493 | 148 | 20 | 0 | 0.00 | 1377 | 2140 | 326 |
| 511 | 498 | 48 | 660 | 1.33 | 1284 | 3584 | 688 |
| 514 | 431 | 58 | 582 | 1.35 | 215 | 2608 | 0 |
| 523 | 277 | 54 | 295 | 1.06 | 1163 | 2324 | 160 |
| 532 | 279 | 133 | 480 | 1.72 | 0 | 1250 | 0 |
| 535 | 223 | 85 | 392 | 1.76 | 132 | 3660 | 0 |
| 571 | 162 | 49 | 179 | 1.10 | 450 | 2808 | 150 |
| 572 | 307 | 121 | 455 | 1.48 | 1263 | 3177 | 430 |
| 585 | 201 | 100 | 366 | 1.82 | 2048 | 2784 | 192 |
| 594 | 370 | 62 | 261 | 0.71 | 1220 | 3745 | 230 |
| 621 | 513 | 74 | 824 | 1.61 | 5025 | 4965 | 180 |
| 645 | 567 | 99 | 182 | 0.32 | 1023 | 3750 | 0 |
| 663 | 540 | 61 | 826 | 1.16 | 894 | 3192 | 210 |
| 665 | 173 | 145 | 430 | 2.49 | 0 | 1464 | 0 |

TABLE J.29 (Continued)

PHARMACY

USAGE OF FACILITIES - SECTION 1

(CONTINUED)

| | FULL-TIME EQUIVALENT ENROLLMENT (1) | ALLOCATED NASF PER STU- DENT (2) | ALLOCATED STUDENT STATIONS, CLASSROOMS AND CLASSLABS (3) | ALLOCATED CLASSROOM AND CLASS- LAB STA- TIONS PER STUDENT (4) | NUMBER OF JOINT-USE STATIONS UTILIZED (5) | STUDENT CONTACT- HOURS SPENT IN CLSRMS AND CLASSLABS (6) | STUDENT CONTACT- HOURS SPENT IN PATIENT AREAS (7) |
|-----|--|--|--|---|---|--|---|
| 684 | 842 | 140 | 1909 | 2.27 | 0 | 3663 | 1295 |
| 692 | 791 | 66 | 1079 | 1.36 | 377 | 1470 | 0 |
| 693 | 206 | 44 | 112 | 0.54 | 649 | 1608 | 32 |
| 703 | 575 | 75 | 548 | 0.95 | 0 | 2997 | 150 |
| 724 | 341 | 82 | 450 | 1.32 | 660 | 3345 | 525 |
| 742 | 112 | 214 | 422 | 3.77 | 0 | 1936 | 0 |
| 753 | 228 | 140 | 618 | 2.71 | 0 | 2964 | 120 |
| 801 | 184 | 207 | 340 | 1.85 | 0 | 1730 | 0 |
| 812 | 259 | 166 | 509 | 1.97 | 179 | 3034 | 400 |
| 824 | 421 | 74 | 112 | 0.27 | 1030 | 3420 | 0 |
| 841 | 258 | 101 | 215 | 0.83 | 150 | 2310 | 300 |
| 874 | 685 | 28 | 978 | 1.43 | 4520 | 3384 | 0 |
| 893 | 714 | 20 | 274 | 0.38 | 784 | 3300 | 0 |
| 902 | 673 | 100 | 1923 | 2.86 | 0 | 2641 | 0 |
| 922 | 509 | 35 | 131 | 0.26 | 597 | 3280 | 0 |
| 923 | 178 | 225 | 112 | 0.63 | 914 | 2045 | 538 |
| 971 | 268 | 97 | 479 | 1.79 | 0 | 2651 | 384 |
| 982 | 758 | 47 | 394 | 0.52 | 0 | 3410 | 0 |
| 984 | 190 | 79 | 549 | 2.89 | 0 | 6974 | 163 |
| 991 | 456 | 118 | 487 | 1.07 | 0 | 2157 | 43 |

TABLE J.30

USAGE OF FACILITIES - SECTION 1

PODIATRY

| | FULL-TIME EQUIVALENT ENROLLMENT (1) | ALLOCATED NASF PER STU- DENT (2) | ALLOCATED STUDENT STATIONS, AND CLASS- ROOMS AND CLASSLABS (3) | ALLOCATED CLASSROOM LAB STA- TIONS PER STUDENT (4) | NUMBER OF JOINT-USE STATIONS UTILIZED (5) | STUDENT CONTACT- HOURS SPENT IN CLSRMS AND CLASSLABS (6) | STUDENT CONTACT- HOURS SPENT IN PATIENT AREAS (7) |
|-------------------|--|--|---|---|---|--|---|
| TOTAL | 1555 | 55 | 1752 | 1.13 | 0 | 14372 | 11959 |
| NUMBER OF SCHOOLS | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| MEAN | 311 | 55 | 350 | 1.15 | 0 | 2874 | 2392 |
| HIGH | 416 | 82 | 420 | 1.38 | 0 | 3455 | 4900 |
| LOW | 227 | 33 | 234 | 1.01 | 0 | 2453 | 1020 |
| 082 | 416 | 82 | 420 | 1.01 | 0 | 2453 | 1020 |
| 191 | 283 | 42 | 390 | 1.38 | 0 | 3455 | 4900 |
| 264 | 398 | 33 | 400 | 1.01 | 0 | 3386 | 1412 |
| 644 | 227 | 79 | 234 | 1.03 | 0 | 2540 | 1880 |
| 833 | 231 | 39 | 308 | 1.33 | 0 | 2538 | 2739 |

TABLE J.31

USAGE OF FACILITIES - SECTION 1

PUBLIC HEALTH

| | FULL-TIME EQUIVALENT ENROLLMENT (1) | ALLOCATED NASF PER STU- DENT (2) | ALLOCATED STUDENT STATIONS, CLASSROOMS AND CLASSLABS (3) | ALLOCATED CLASSROOM AND CLASS- LAB STA- TIONS PER STUDENT (4) | NUMBER OF JOINT-USE STATIONS UTILIZED (5) | STUDENT CONTACT- HOURS SPENT IN CLSRMS AND CLASSLABS (6) | STUDENT CONTACT- HOURS SPENT IN PATIENT AREAS (7) |
|-------------------|--|--|--|---|---|--|---|
| TOTAL | 3285 | 282 | 5498 | 1.67 | 5285 | 13307 | 132 |
| NUMBER OF SCHOOLS | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| MEAN | 253 | 289 | 423 | 1.66 | 407 | 1024 | 10 |
| HIGH | 488 | 745 | 1301 | 3.67 | 2279 | 2300 | 132 |
| LOW | 31 | 121 | 78 | 0.55 | 0 | 450 | 0 |
| 032 | 146 | 212 | 197 | 1.35 | 144 | 1132 | 0 |
| 154 | 446 | 182 | 718 | 1.61 | 40 | 690 | 0 |
| 223 | 356 | 121 | 233 | 0.65 | 2279 | 792 | 132 |
| 251 | 186 | 145 | 523 | 2.81 | 0 | 2296 | 0 |
| 272 | 31 | 290 | 78 | 2.52 | 725 | 600 | 0 |
| 291 | 307 | 257 | 170 | 0.55 | 1692 | 450 | 0 |
| 381 | 348 | 187 | 326 | 0.94 | 0 | 2300 | 0 |
| 494 | 169 | 207 | 220 | 1.30 | 120 | 704 | 0 |
| 681 | 164 | 274 | 175 | 1.07 | 285 | 595 | 0 |
| 762 | 488 | 408 | 1301 | 2.67 | 0 | 860 | 0 |
| 763 | 139 | 374 | 80 | 0.58 | 0 | 512 | 0 |
| 834 | 289 | 339 | 1062 | 3.67 | 0 | 1800 | 0 |
| 882 | 216 | 745 | 415 | 1.92 | 0 | 576 | 0 |

TABLE J.32

USAGE OF FACILITIES - SECTION 1

VETERINARY MEDICINE

| | FULL-TIME EQUIVALENT ENROLLMENT (1) | ALLOCATED NASF PER STU- DENT (2) | ALLOCATED STUDENT STATIONS, AND CLASS- ROOMS AND LAB STA- TIONS PER CLASSLABS (3) | ALLOCATED CLASSROOM AND CLASS- ROOMS PER STUDENT (4) | NUMBER OF JOINT-USE STATIONS UTILIZED (5) | STUDENT CONTACT- HOURS SPENT IN CLSRMS AND CLASSLABS (6) | STUDENT CONTACT- HOURS SPENT IN PATIENT AREAS (7) |
|---|--|--|---|---|---|--|---|
| TOTAL NUMBER OF SCHOOLS | 5913 | 320 | 12704 | 2.15 | 4245 | 65107 | 28989 |
| MEAN | 19 | 18 | 19 | 18 | 19 | 19 | 19 |
| HIGH | 311 | 313 | 669 | 2.42 | 223 | 3479 | 1526 |
| LOW | 511 | 649 | 1644 | 8.44 | 860 | 5363 | 3728 |
| | 0 | 73 | 0 | 0.03 | 0 | 0 | 0 |
| 002 | 327 | 477 | 841 | 2.57 | 0 | 4145 | 1254 |
| 021 | 424 | 278 | 1229 | 2.90 | 0 | 4323 | 2230 |
| 043 | 330 | 73 | 10 | 0.03 | 487 | 4570 | 1590 |
| 061 | 153 | 190 | 335 | 2.19 | 0 | 2656 | 1005 |
| 165 | 422 | 358 | 1043 | 2.47 | 0 | 4860 | 1665 |
| 243 | 284 | 345 | 819 | 2.88 | 0 | 4710 | 1600 |
| 292 | 346 | 361 | 508 | 1.47 | 860 | 3445 | 1102 |
| 321 | 431 | 241 | 94 | 0.22 | 631 | 3566 | 1542 |
| 354 | 511 | 270 | 1644 | 3.22 | 0 | 2170 | 1711 |
| 363 | 305 | 275 | 576 | 1.89 | 0 | 4800 | 1280 |
| 392 | 323 | 201 | 660 | 2.04 | 0 | 4200 | 1200 |
| 424 | 243 | 284 | 478 | 1.97 | 635 | 2766 | 1720 |
| 442 | 371 | 296 | 967 | 2.61 | 232 | 3042 | 2052 |
| 502 | 384 | 187 | 500 | 1.30 | 144 | 5383 | 2362 |
| 545 | 270 | 263 | 259 | 0.96 | 399 | 3872 | 844 |
| 551 | 380 | 603 | 1440 | 3.79 | 582 | 3720 | 2040 |
| 622 | 36 | 278 | 304 | 8.44 | 0 | 960 | 64 |
| 784 | 373 | 649 | 997 | 2.67 | 275 | 2919 | 3728 |
| 851 | 0 | | 0 | | 0 | 0 | 0 |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | | 851 | | 851 | | | |

FOOTNOTES
USAGE OF FACILITIES - SECTION 1

1. Full-time equivalent enrollment is defined as full-time equivalent undergraduate enrollment plus full-time graduate-level enrollment excluding interns and residents as of fall, 1973.
2. Each figure displayed represents the ratio between total NASF of instructional space (excluding "on-site patient care" and "other" facilities) and full time equivalent enrollment as defined for column 1.
4. The number of students used in this computation is the number found in column 1 (full-time equivalent graduate plus undergraduate).
5. It should be noted that stations reported as "jointly utilized" are not necessarily available on a full-time basis but rather are controlled by either another health profession school, or by some central agency such as a health science center.
6. The figure displayed represents the total amount of time spent by a "typical" student over a career composed of all undergraduate plus one year of graduate study.
7. In parallel with column 6, the figures displayed represent time spent in "on-site patient care facilities" or in owned and major affiliated hospitals--whether that time be spent dealing with inpatients or ambulatory patients.

TABLE J.33

USAGE OF FACILITIES - SECTION 2

DENTISTRY

| | <.....CLASSROOMS.....> | | <.....CLASSLAB.....> | | NASF OF OFFICE SPACE PER FACULTY MEMBER | BEDS PER STUDENT | AMBULATORY PATIENT STATIONS PER STUDENT |
|-------------------|--|---|--|---|---|------------------------|---|
| | PERCENT ROOM UTILIZA- TION (1) | PERCENT STUDENT UTILIZA- TION (2) | PERCENT ROOM UTILIZA- TION (3) | PERCENT STUDENT UTILIZA- TION (4) | | | |
| TOTAL | 23.96 | 17.98 | 34.87 | 20.79 | 101 | 0.35 | 0.59 |
| NUMBER OF SCHOOLS | 42 | 46 | 42 | 46 | 50 | 50 | 50 |
| MEAN | 33.39 | 24.06 | 33.83 | 26.14 | 114 | 0.25 | 0.62 |
| HIGH | 131.25 | 102.72 | 80.55 | 90.75 | 300 | 4.52 | 2.03 |
| LOW | 1.37 | 5.13 | 3.17 | 7.35 | 0 | 0.00 | 0.00 |
| 081 | 45.67 | 23.61 | 43.27 | 24.64 | 150 | 0.00 | 0.47 |
| 085 | 47.45 | 43.34 | 45.29 | 56.37 | 94 | 0.06 | 0.43 |
| 102 | 19.84 | 22.32 | 28.41 | 34.78 | 94 | 0.00 | 0.59 |
| 124 | 22.00 | 15.19 | 13.15 | 10.56 | 131 | 1.48 | 0.75 |
| 132 | 20.13 | 21.45 | 30.17 | 26.48 | 59 | 0.00 | 0.41 |
| 135 | 15.59 | 7.48 | 29.37 | 13.42 | 147 | 0.00 | 0.04 |
| 192 | | | | | 129 | 0.00 | 0.37 |
| 193 | 6.21 | 58.81 | 15.62 | 18.82 | 62 | 0.03 | 0.44 |
| 231 | 33.65 | 23.45 | 34.13 | 31.79 | 76 | 0.06 | 0.50 |
| 242 | | 102.72 | | 44.50 | 210 | 0.00 | 0.67 |
| 244 | 29.63 | 26.82 | 3.17 | 11.46 | 49 | 0.00 | 0.59 |
| 305 | 20.65 | 16.33 | 54.55 | 25.93 | 84 | 0.02 | 0.71 |
| 314 | 22.73 | 15.10 | 26.51 | 22.15 | 187 | 0.01 | 0.90 |
| 335 | | | | | 86 | 0.00 | 0.53 |
| 352 | 24.37 | 18.89 | 44.96 | 31.29 | 75 | 0.00 | 0.75 |
| 361 | 18.50 | 26.52 | 64.67 | 16.26 | 120 | 0.01 | 0.75 |
| 383 | 43.96 | 21.48 | 27.55 | 19.19 | 65 | 0.03 | 0.58 |
| 423 | 10.48 | 17.32 | 7.62 | 10.44 | 119 | 0.00 | 0.45 |
| 445 | 71.11 | 29.00 | 72.12 | 12.80 | 215 | 0.28 | 0.57 |
| 462 | 19.04 | 25.09 | 26.30 | 27.71 | 128 | 0.02 | 0.74 |
| 471 | 10.82 | 16.08 | 19.71 | 9.62 | 83 | 0.00 | 0.59 |
| 473 | 11.54 | 18.32 | 23.08 | 28.32 | 43 | 0.03 | 0.44 |
| 474 | | | | | 83 | 0.00 | 1.17 |
| 491 | 23.66 | 12.05 | 80.55 | 14.96 | 66 | 0.04 | 0.68 |
| 513 | 32.69 | 28.55 | 23.97 | 12.44 | 82 | 0.00 | 0.54 |
| 552 | 39.29 | 26.43 | 60.00 | 8.49 | 91 | 0.01 | 0.86 |
| 564 | 31.49 | 8.43 | 21.30 | 11.08 | 94 | 0.00 | 0.64 |
| 565 | 36.06 | 20.08 | 80.13 | 23.38 | 51 | 0.00 | 0.59 |
| 591 | | | | | 300 | | |
| 592 | 21.77 | 19.77 | 15.75 | 25.78 | 102 | 0.00 | 0.99 |
| 603 | 16.06 | 8.44 | 47.60 | 35.52 | 180 | 0.00 | 0.00 |
| 605 | 16.23 | 9.59 | 50.35 | 7.35 | 60 | 0.00 | 0.46 |
| 633 | 27.64 | 30.75 | 18.93 | 18.08 | 122 | 3.15 | 0.54 |
| 641 | 1.37 | 5.13 | 8.14 | 9.65 | 214 | 0.00 | 0.39 |
| 642 | 12.47 | 47.06 | 7.97 | 10.35 | 271 | 0.27 | 0.09 |
| 701 | 64.90 | 12.08 | 40.66 | 14.35 | 186 | 0.88 | 0.69 |
| 704 | | 31.37 | | 42.25 | 64 | 0.00 | 0.37 |
| 715 | | | | | | | |
| 733 | 38.46 | 28.11 | 46.25 | 16.51 | 51 | 0.00 | 0.74 |
| 751 | 33.56 | 21.89 | 44.29 | 34.48 | 59 | 0.03 | 0.95 |
| 764 | 25.10 | 10.84 | 10.74 | 26.44 | 30 | 0.22 | 0.32 |
| 792 | 8.26 | 14.44 | 43.27 | 82.97 | 171 | 0.11 | 0.72 |
| 804 | 34.10 | 11.66 | 35.23 | 9.39 | 103 | 0.00 | 0.51 |
| 821 | | | | | 140 | 0.00 | 1.42 |

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TABLE J.33 (Continued)

DENTISTRY

USAGE OF FACILITIES - SECTION 2

(CONTINUED)

| | <*****CLASSROOMS*****> | | <*****CLASSLAB*****> | | | | |
|---|--|--|--|--|--|-------------------------------|--|
| | PERCENT ROOM UTILIZA- TION (1) | PERCENT STUDENT STATION UTILIZA- TION (2) | PERCENT ROOM UTILIZA- TION (3) | PERCENT STUDENT STATION UTILIZA- TION (4) | NASF OF OFFICE SPACE PER FACULTY MEMBER (5) | BEDS PER STUDENT (6) | AMBULATORY PATIENT STATIONS PER STUDENT (7) |
| 832 | | | | | | | |
| 853 | 49.81 | 15.36 | 34.44 | 16.47 | 65 | 4.52 | 0.69 |
| 854 | 29.81 | 26.94 | 34.62 | 13.87 | 155 | 0.06 | 0.96 |
| 862 | 131.25 | 40.20 | 25.24 | 72.56 | | 0.00 | 0.32 |
| 911 | 20.64 | 13.31 | 15.32 | 19.50 | 138 | 0.89 | 0.55 |
| 913 | 35.34 | 19.76 | 6.92 | 56.34 | 44 | 0.01 | 0.52 |
| 941 | 52.88 | 11.64 | 49.68 | 34.49 | 127 | 0.03 | 2.03 |
| 942 | | 18.21 | | 90.75 | 0 | 0.04 | 0.07 |
| 944 | | 65.52 | | 18.47 | 159 | 0.03 | 0.71 |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | 192 | 192 | 192 | 192 | 715 | 591 | 591 |
| | 242 | 335 | 242 | 335 | 832 | 715 | 715 |
| | 335 | 474 | 335 | 474 | 862 | 832 | 832 |
| | 474 | 591 | 474 | 591 | | | |
| | 591 | 715 | 591 | 715 | | | |
| | 704 | 821 | 704 | 821 | | | |
| | 715 | 832 | 715 | 832 | | | |
| | 821 | | 821 | | | | |
| | 832 | | 832 | | | | |
| | 942 | | 942 | | | | |
| | 944 | | 944 | | | | |

TABLE J.34

USAGE OF FACILITIES - SECTION 2

MEDICINE

| | <.....CLASSROOMS.....> | | <.....CLASSLAB.....> | | NASF OF | | AMBULATORY |
|-------------------|------------------------|----------|----------------------|----------|-----------|---------|------------|
| | PERCENT | PERCENT | PERCENT | PERCENT | OFFICE | BEDS | PATIENT |
| | ROOM | STUDENT | ROOM | STUDENT | SPACE PER | PER | STATIONS |
| | UTILIZA- | UTILIZA- | UTILIZA- | UTILIZA- | FACULTY | STUDENT | PER |
| | TION | TION | TION | TION | MEMBER | | STUDENT |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| TOTAL | 35.33 | 17.53 | 34.25 | 17.54 | 79 | 3.78 | 0.41 |
| NUMBER OF SCHOOLS | 68 | 75 | 68 | 75 | 92 | 94 | 94 |
| MEAN | 38.05 | 23.80 | 32.52 | 21.15 | 94 | 5.02 | 0.96 |
| HIGH | 117.15 | 90.48 | 100.38 | 195.31 | 258 | 38.75 | 50.00 |
| LOW | 0.00 | 0.00 | 0.00 | 0.00 | 0 | 0.00 | 0.00 |
| 022 | | | | | 77 | 0.00 | 0.00 |
| 023 | | 64.00 | | 35.68 | 82 | 19.20 | 0.38 |
| 024 | 57.26 | 9.87 | 12.02 | 5.47 | 40 | 6.35 | 0.34 |
| 025 | | | | | 129 | 7.73 | 0.00 |
| 054 | 35.80 | 5.79 | 12.47 | 8.14 | 194 | 11.72 | 0.42 |
| 055 | 63.01 | 23.46 | 69.57 | 19.61 | 227 | 1.18 | 1.15 |
| 074 | 26.32 | 10.78 | 25.38 | 26.02 | 19 | 5.12 | 0.32 |
| 091 | | 41.10 | | 195.31 | 0 | 1.86 | 0.07 |
| 094 | 0.00 | 29.41 | 9.76 | 34.90 | 94 | 4.75 | 2.49 |
| 095 | 40.31 | 21.91 | 21.34 | 42.01 | 258 | 3.97 | 0.46 |
| 112 | 14.17 | 22.35 | 21.77 | 23.24 | 200 | 7.74 | 0.27 |
| 121 | | | | | 88 | 12.20 | 1.44 |
| 133 | 25.74 | 10.13 | 30.30 | 13.34 | 177 | 4.60 | 0.48 |
| 134 | 16.84 | 16.89 | 16.14 | 14.65 | 123 | 2.91 | 0.31 |
| 141 | | 3.76 | | 12.11 | 46 | 3.02 | 0.17 |
| 142 | 34.92 | 7.72 | 45.82 | 15.61 | 48 | 3.37 | 0.25 |
| 145 | 96.94 | 18.31 | 62.95 | 13.18 | 75 | 5.48 | 0.52 |
| 152 | 116.92 | 24.10 | 84.13 | 17.23 | 0 | 6.90 | 0.14 |
| 153 | | | | | 0 | 38.75 | 50.00 |
| 172 | | | | | | | |
| 184 | 43.71 | 57.50 | 42.93 | 9.03 | 60 | 1.57 | 0.25 |
| 203 | 72.67 | 14.64 | 72.97 | 9.36 | 147 | 3.61 | 0.45 |
| 212 | | | | | 0 | 1.59 | 0.93 |
| 215 | | | | | 97 | 24.62 | 4.23 |
| 222 | 17.80 | 12.63 | 11.88 | 5.23 | 100 | 7.22 | 0.52 |
| 224 | | | | | 125 | 6.11 | 0.00 |
| 241 | 22.77 | 8.52 | 37.05 | 9.65 | 107 | 4.36 | 0.48 |
| 252 | 34.62 | | 15.18 | | 233 | 6.25 | 0.30 |
| 254 | 25.74 | 21.08 | 57.57 | 10.98 | 30 | 0.00 | 0.00 |
| 275 | 23.30 | 39.13 | 4.05 | 12.63 | | 5.19 | 0.66 |
| 283 | 22.44 | 38.30 | 10.58 | 24.70 | 126 | 1.92 | 0.06 |
| 295 | 62.38 | 10.94 | 50.02 | 11.08 | 199 | 2.86 | 0.34 |
| 311 | 21.15 | 14.34 | 21.15 | 53.12 | 94 | 1.61 | 0.13 |
| 315 | | | | | 125 | 6.74 | 0.78 |
| 324 | 72.37 | 41.43 | 69.25 | 15.03 | 33 | 3.29 | 0.36 |
| 333 | 68.70 | 12.05 | 46.64 | 5.46 | 141 | 1.95 | 0.19 |
| 341 | 21.87 | 17.16 | 9.24 | 33.19 | 36 | 3.96 | 0.30 |
| 345 | 57.64 | 16.02 | 68.64 | 35.83 | 154 | 2.88 | 0.05 |
| 362 | 59.78 | 26.13 | 57.69 | 45.32 | 34 | 0.37 | 0.12 |
| 371 | | 5.73 | | 5.81 | 85 | 3.72 | 0.23 |
| 374 | 28.89 | 4.96 | 17.31 | 6.30 | 105 | 6.17 | 0.57 |
| 393 | | | | | | 7.74 | 0.39 |
| 395 | 0.00 | 9.44 | 0.00 | 3.24 | 92 | 1.70 | 0.16 |
| 401 | 39.31 | 21.28 | 41.83 | 25.82 | 56 | 4.77 | 0.22 |

TABLE J.34 (Continued)

MEDICINE

USAGE OF FACILITIES - SECTION 2

(CONTINUED)

| | <*****CLASSROOMS*****> | | <*****CLASSLAB*****> | | | | |
|-----|--|--|--|--|--|-------------------------------|--|
| | PERCENT ROOM UTILIZA- TION (1) | PERCENT STUDENT STATION UTILIZA- TION (2) | PERCENT ROOM UTILIZA- TION (3) | PERCENT STUDENT STATION UTILIZA- TION (4) | NASF OF SPACE PER FACULTY MEMBER (5) | BEDS PER STUDENT (6) | AMBULATORY PATIENT STATIONS PER STUDENT (7) |
| 415 | 21.01 | 11.35 | 2.74 | 5.24 | 84 | 6.45 | 0.49 |
| 433 | 13.07 | 16.31 | 11.21 | 11.63 | 87 | 3.97 | 0.76 |
| 455 | | 52.67 | | 75.42 | 73 | 5.82 | 0.64 |
| 472 | 44.13 | 29.82 | 90.66 | 64.17 | 183 | 1.79 | 0.44 |
| 483 | 46.13 | 35.09 | 27.72 | 17.82 | 79 | 1.94 | 0.23 |
| 484 | 117.15 | 52.92 | 92.15 | 56.05 | 124 | 1.22 | 0.10 |
| 522 | 45.01 | 21.48 | 23.50 | 13.48 | 57 | 1.76 | 0.40 |
| 531 | 23.63 | 7.54 | 28.85 | 5.66 | 56 | 2.63 | 0.54 |
| 543 | 116.79 | 60.21 | 100.38 | 80.16 | 41 | 2.57 | 0.24 |
| 562 | | 21.60 | | 17.32 | 118 | 2.57 | 0.45 |
| 563 | | | | | 167 | 0.00 | 0.13 |
| 574 | 27.78 | 15.03 | 18.63 | 15.00 | 140 | 1.08 | 0.50 |
| 575 | 35.26 | 9.29 | 39.61 | 9.26 | 68 | 4.08 | 0.39 |
| 583 | | | | | 96 | 1.33 | 0.00 |
| 602 | | 66.25 | | 27.92 | 14 | 2.14 | 0.47 |
| 613 | 36.78 | 21.74 | 19.23 | 7.03 | 0 | 5.70 | 0.56 |
| 624 | 42.95 | 30.20 | 3.29 | 13.36 | 112 | 3.79 | 0.18 |
| 635 | | 29.74 | | 8.84 | 144 | 2.39 | 0.20 |
| 651 | | 16.17 | | 23.39 | 84 | 12.12 | 0.07 |
| 652 | 41.43 | 12.12 | 26.83 | 12.00 | 48 | 3.37 | 0.37 |
| 653 | 22.58 | 29.00 | 1.00 | 7.36 | 113 | 3.11 | 0.03 |
| 664 | 60.66 | 90.48 | 13.99 | 4.00 | 75 | 7.42 | 0.96 |
| 671 | 20.54 | 23.83 | 17.31 | 11.62 | 59 | 3.33 | 0.10 |
| 672 | 0.87 | 0.00 | 16.35 | 0.00 | 29 | 7.10 | 0.81 |
| 683 | 13.46 | 11.54 | 28.58 | 12.23 | 57 | 4.19 | 0.59 |
| 711 | 32.84 | 36.61 | 19.31 | 19.63 | 67 | 2.82 | 0.12 |
| 714 | 34.86 | 25.15 | 24.02 | 28.11 | 80 | 4.15 | 0.55 |
| 731 | 33.75 | 13.17 | 34.62 | 4.67 | 46 | 1.05 | 0.28 |
| 743 | 0.40 | 2.42 | 1.86 | 8.33 | 34 | 1.29 | 0.20 |
| 744 | 16.31 | 20.39 | 19.97 | 10.94 | 169 | 4.20 | 0.41 |
| 761 | 60.48 | 24.14 | 38.94 | 20.61 | 61 | 2.43 | 0.31 |
| 772 | 0.00 | | 0.46 | | 92 | 0.00 | 0.00 |
| 774 | 61.80 | 9.82 | 42.88 | 4.51 | 27 | 3.25 | 0.39 |
| 783 | 60.86 | 5.15 | 66.44 | 6.82 | 177 | 6.30 | 1.25 |
| 802 | 51.92 | 18.02 | 56.00 | 12.34 | 127 | 3.05 | 0.57 |
| 813 | 20.67 | 46.05 | 16.83 | 30.23 | 13 | 11.24 | 0.47 |
| 823 | 81.97 | 4.00 | 80.77 | 3.25 | 77 | 5.51 | 0.06 |
| 831 | 42.31 | 60.29 | 49.92 | 13.45 | 57 | 2.05 | 0.36 |
| 863 | 9.18 | 14.46 | 28.72 | 13.96 | 10 | 4.80 | 0.04 |
| 864 | 18.27 | 13.13 | 14.66 | 12.53 | 172 | 4.30 | 0.21 |
| 872 | 8.00 | | 14.82 | | 34 | 2.76 | 0.23 |
| 891 | | | | | 89 | 10.35 | 0.35 |
| 903 | 1.31 | | 0.00 | | 225 | 0.00 | 0.00 |
| 904 | | | | | 250 | 15.36 | 0.24 |
| 921 | 31.96 | 10.57 | 24.88 | 10.12 | 89 | 4.76 | 0.57 |
| 951 | 44.19 | 47.82 | 19.79 | 9.77 | 66 | 2.83 | 0.86 |
| 952 | | 37.06 | | 36.15 | 5 | 7.23 | 0.09 |
| 953 | 23.86 | | 90.00 | | 120 | 0.36 | 0.12 |
| 954 | | 33.71 | | 11.50 | 181 | 0.85 | 0.56 |
| 962 | | | | | 47 | 19.39 | 0.81 |
| 973 | | 17.94 | | 9.92 | 152 | 2.14 | 0.60 |

TABLE J.34 (Continued)

MEDICINE

USAGE OF FACILITIES - SECTION 2

(CONTINUED)

| | <*****CLASSROOMS*****> | | <*****CLASSLAB*****> | | | | |
|---|--|--|--|--|---|-------------------------------|--|
| | PERCENT ROOM UTILIZA- TION (1) | PERCENT STUDENT STATION UTILIZA- TION (2) | PERCENT ROOM UTILIZA- TION (3) | PERCENT STUDENT STATION UTILIZA- TION (4) | NAF OF OFFICE SPACE PER FACULTY MEMBER (5) | BEDS PER STUDENT (6) | AMBULATORY PATIENT STATIONS PER STUDENT (7) |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | 22 | 22 | 22 | 22 | 172 | 172 | 172 |
| | 23 | 25 | 23 | 25 | 275 | | |
| | 25 | 121 | 25 | 121 | 393 | | |
| | 91 | 153 | 91 | 153 | | | |
| | 121 | 172 | 121 | 172 | | | |
| | 141 | 212 | 141 | 212 | | | |
| | 153 | 215 | 153 | 215 | | | |
| | 172 | 224 | 172 | 224 | | | |
| | 212 | 252 | 212 | 252 | | | |
| | 215 | 315 | 215 | 315 | | | |
| | 224 | 393 | 224 | 393 | | | |
| | 315 | 563 | 315 | 563 | | | |
| | 371 | 583 | 371 | 583 | | | |
| | 393 | 772 | 393 | 772 | | | |
| | 455 | 872 | 455 | 872 | | | |
| | 562 | 891 | 562 | 891 | | | |
| | 563 | 903 | 563 | 903 | | | |
| | 583 | 904 | 583 | 904 | | | |
| | 602 | 953 | 602 | 953 | | | |
| | 635 | 962 | 635 | 962 | | | |
| | 651 | | 651 | | | | |
| | 891 | | 891 | | | | |
| | 904 | | 904 | | | | |
| | 952 | | 952 | | | | |
| | 954 | | 954 | | | | |
| | 962 | | 962 | | | | |
| | 973 | | 973 | | | | |

TABLE J.35

USAGE OF FACILITIES - SECTION 2

OPTOMETRY

| | <*****CLASSROOMS*****> | | <*****CLASSLAB*****> | | | | |
|---|--|--|--|--|--|-------------------------------|--|
| | PERCENT ROOM UTILIZA- TION (1) | PERCENT STUDENT STATION UTILIZA- TION (2) | PERCENT ROOM UTILIZA- TION (3) | PERCENT STUDENT STATION UTILIZA- TION (4) | NASF OF OFFICE SPACE PER FACULTY MEMBER (5) | BEDS PER STUDENT (6) | AMBULATORY PATIENT STATIONS PER STUDENT (7) |
| TOTAL | 40.13 | 21.70 | 12.89 | 21.73 | 103 | 0.04 | 0.26 |
| NUMBER OF SCHOOLS | 9 | 9 | 9 | 9 | 10 | 10 | 10 |
| MEAN | 42.07 | 27.87 | 18.92 | 34.64 | 106 | 0.02 | 0.28 |
| HIGH | 86.54 | 65.13 | 32.64 | 120.85 | 207 | 0.25 | 0.49 |
| LOW | 22.43 | 10.38 | 1.09 | 6.49 | 65 | 0.00 | 0.09 |
| 065 | 48.85 | 10.38 | 16.87 | 6.49 | 79 | 0.00 | 0.19 |
| 072 | 42.92 | 23.21 | 1.09 | 23.05 | 114 | 0.25 | 0.49 |
| 101 | 28.91 | 30.93 | 16.15 | 27.76 | 115 | 0.00 | 0.30 |
| 211 | 22.43 | 17.81 | 12.69 | 21.95 | 207 | 0.00 | 0.47 |
| 235 | 50.58 | 65.13 | 31.88 | 29.53 | 91 | 0.00 | 0.26 |
| 281 | 38.46 | 25.26 | 32.64 | 34.65 | 107 | 0.00 | 0.26 |
| 334 | 86.54 | 27.77 | 16.35 | 120.85 | 65 | 0.00 | 0.25 |
| 634 | 26.15 | 29.60 | 20.56 | 11.94 | 83 | 0.00 | 0.09 |
| 892 | 33.75 | 20.75 | 22.00 | 35.58 | 65 | 0.00 | 0.11 |
| 933 | | | | | 136 | 0.00 | 0.41 |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | 933 | 933 | 933 | 933 | | | |

TABLE J.36

USAGE OF FACILITIES - SECTION 2

OSTEOPATHY

| | <*****CLASSROOMS*****> | | <*****CLASSLAB*****> | | | | |
|---|--|--|--|--|--|-------------------------------|--|
| | PERCENT ROOM UTILIZA- TION (1) | PERCENT STUDENT STATION UTILIZA- TION (2) | PERCENT ROOM UTILIZA- TION (3) | PERCENT STUDENT STATION UTILIZA- TION (4) | NASE OF OFFICE SPACE PER FACULTY MEMBER (5) | BEDS PER STUDENT (6) | AMBULATORY PATIENT STATIONS PER STUDENT (7) |
| TOTAL | 21.84 | 24.82 | 10.14 | 16.16 | 116 | 4.81 | 0.21 |
| NUMBER OF SCHOOLS | 4 | 5 | 4 | 5 | 5 | 5 | 5 |
| MEAN | 25.10 | 31.21 | 11.45 | 18.35 | 120 | 7.54 | 0.31 |
| HIGH | 38.30 | 49.74 | 18.75 | 39.19 | 203 | 26.85 | 0.94 |
| LOW | 10.31 | 15.76 | 8.68 | 5.35 | 52 | 0.35 | 0.02 |
| 033 | | 49.74 | | 5.35 | 132 | 26.85 | 0.94 |
| 062 | 38.30 | 27.39 | 18.75 | 13.93 | 203 | 0.89 | 0.16 |
| 293 | 31.73 | 36.48 | 9.60 | 23.45 | 67 | 1.91 | 0.09 |
| 303 | 20.03 | 15.76 | 8.75 | 9.81 | 52 | 7.68 | 0.32 |
| 402 | 10.31 | 26.69 | 8.68 | 39.19 | 145 | 0.35 | 0.02 |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | 33 | | 33 | | | | |

TABLE J.37

USAGE OF FACILITIES - SECTION 2

PHARMACY

| | <*****CLASSROOMS*****> | | <*****CLASSLAB*****> | | NASF OF | | AMBULATORY |
|-------------------|------------------------|----------|----------------------|----------|-----------|---------|------------|
| | PERCENT | PERCENT | PERCENT | PERCENT | OFFICE | BEDS | PATIENT |
| | ROOM | STUDENT | ROOM | STUDENT | SPACE PER | PER | STATIONS |
| | UTILIZA- | UTILIZA- | UTILIZA- | UTILIZA- | FACULTY | STUDENT | PER |
| | TION | TION | TION | TION | MEMBER | | STUDENT |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| TOTAL | 31.58 | 31.51 | 25.42 | 15.26 | 123 | 1.48 | 0.04 |
| NUMBER OF SCHOOLS | 46 | 60 | 46 | 60 | 63 | 64 | 64 |
| MEAN | 33.63 | 42.39 | 25.05 | 21.14 | 129 | 1.56 | 0.05 |
| HIGH | 98.22 | 129.02 | 66.83 | 125.15 | 270 | 8.59 | 0.47 |
| LOW | 1.44 | 5.69 | 0.50 | 4.01 | 43 | 0.00 | 0.00 |
| 005 | | 68.71 | | 10.07 | 111 | 0.06 | 0.00 |
| 011 | 28.37 | 100.07 | 31.73 | 69.24 | 100 | 0.62 | 0.00 |
| 041 | 22.55 | 19.88 | 6.79 | 10.69 | 111 | 0.00 | 0.00 |
| 052 | 28.53 | 12.66 | 15.13 | 15.72 | 143 | 0.34 | 0.01 |
| 105 | 50.48 | 33.16 | 17.12 | 8.65 | 89 | 2.92 | 0.09 |
| 143 | 34.13 | 60.73 | 15.38 | 34.53 | 43 | 0.20 | 0.18 |
| 144 | 22.44 | 32.20 | 18.31 | 17.73 | 74 | 2.25 | 0.01 |
| 151 | | 28.67 | | 10.23 | 87 | 0.44 | 0.10 |
| 181 | 30.00 | 30.92 | 14.62 | 16.38 | 111 | 0.65 | 0.05 |
| 195 | 43.08 | 38.54 | 13.85 | 15.77 | 133 | 1.10 | 0.05 |
| 204 | 24.16 | 11.94 | 63.65 | 5.01 | 167 | 0.60 | 0.01 |
| 213 | | 115.55 | | 20.97 | 148 | 8.59 | 0.01 |
| 245 | | 70.65 | | 26.81 | 71 | 0.00 | 0.00 |
| 262 | | 23.02 | | 11.26 | 125 | 0.53 | 0.06 |
| 263 | 46.15 | 29.91 | 36.76 | 17.18 | 147 | 0.87 | 0.02 |
| 265 | | 79.84 | | 51.49 | 208 | 0.00 | 0.00 |
| 294 | 1.44 | 33.88 | 18.32 | 6.20 | 133 | 4.49 | 0.09 |
| 313 | 25.96 | 24.38 | 19.27 | 18.71 | 107 | 0.21 | 0.18 |
| 344 | 37.74 | 25.74 | 27.54 | 26.06 | 147 | 5.59 | 0.19 |
| 375 | 24.66 | 49.62 | 25.27 | 15.16 | 167 | 0.60 | 0.05 |
| 382 | 49.23 | 49.58 | 14.74 | 36.96 | 143 | 0.17 | 0.00 |
| 384 | | 46.79 | | 23.22 | 130 | 0.53 | 0.00 |
| 403 | | 110.58 | | 13.77 | 115 | 1.23 | 0.02 |
| 404 | | | | | 111 | 0.04 | 0.00 |
| 422 | 30.96 | 32.89 | 25.58 | 24.21 | 83 | 2.17 | 0.00 |
| 453 | | 123.87 | | 14.87 | 100 | 0.00 | 0.00 |
| 454 | 60.90 | 33.49 | 19.23 | 76.78 | 143 | 3.82 | 0.03 |
| 461 | 22.87 | 50.48 | 64.90 | 28.01 | 136 | 0.00 | 0.00 |
| 465 | 26.89 | 17.48 | 14.67 | 7.22 | 80 | 1.24 | 0.01 |
| 482 | | 34.04 | | 24.76 | 67 | 0.97 | 0.05 |
| 493 | | 102.58 | | 125.15 | 91 | 6.86 | 0.00 |
| 511 | | 78.00 | | 10.11 | 60 | 1.20 | 0.04 |
| 514 | 55.38 | 26.24 | 39.44 | 15.92 | 59 | 1.47 | 0.04 |
| 523 | 36.45 | 50.36 | 24.04 | 21.03 | 118 | 1.12 | 0.44 |
| 532 | | | | | 185 | 0.00 | 0.00 |
| 535 | 15.38 | 64.11 | 10.32 | 10.21 | 125 | 0.00 | 0.00 |
| 571 | 25.96 | 43.93 | 14.54 | 21.06 | 143 | 0.23 | 0.02 |
| 572 | 32.10 | 13.61 | 12.71 | 23.97 | 182 | 1.37 | 0.00 |
| 585 | 38.46 | 27.40 | 35.94 | 10.70 | | 2.39 | 0.47 |
| 594 | 28.85 | 52.42 | 18.70 | 15.00 | 100 | 0.41 | 0.01 |
| 621 | 40.06 | 19.14 | 52.60 | 16.22 | 125 | 0.79 | 0.01 |
| 645 | 91.35 | | 42.37 | | 243 | 0.35 | 0.00 |
| 663 | 18.56 | 19.47 | 9.91 | 14.82 | 107 | 4.31 | 0.00 |
| 665 | 32.83 | 5.69 | 15.14 | 4.38 | 222 | 0.07 | 0.00 |

TABLE J.37 (Continued)

USAGE OF FACILITIES - SECTION 2

PHARMACY

(CONTINUED)

| | <.....CLASSROOMS.....> | | <.....CLASSLAB.....> | | | | |
|----------------------|--|--|--|--|--|-------------------------------|--|
| | PERCENT ROOM UTILIZA- TION (1) | PERCENT STUDENT STATION UTILIZA- TION (2) | PERCENT ROOM UTILIZA- TION (3) | PERCENT STUDENT STATION UTILIZA- TION (4) | NASF OF OFFICE SPACE PER FACULTY MEMBER (5) | BEDS PER STUDENT (6) | AMBULATORY PATIENT STATIONS PER STUDENT (7) |
| 684 | 33.65 | 16.09 | 32.60 | 8.66 | 81 | 0.86 | 0.00 |
| 692 | 3.61 | 9.61 | 0.50 | 12.63 | 231 | 0.08 | 0.00 |
| 693 | 31.92 | 33.66 | 25.24 | 26.46 | 143 | 0.00 | 0.15 |
| 703 | 30.42 | 42.59 | 15.08 | 18.59 | 165 | 0.00 | 0.00 |
| 724 | 30.77 | 15.51 | 46.15 | 14.75 | 95 | 1.94 | 0.00 |
| 742 | 13.58 | 12.62 | 5.67 | 7.67 | 182 | 0.00 | 0.00 |
| 753 | 20.43 | 15.54 | 44.89 | 7.62 | 200 | 0.00 | 0.00 |
| 801 | 10.75 | 27.01 | 15.50 | 6.05 | 267 | 0.00 | 0.00 |
| 812 | 34.39 | 13.01 | 13.00 | 23.89 | 71 | 0.77 | 0.00 |
| 824 | | 27.51 | | 52.33 | 108 | 4.25 | 0.00 |
| 841 | 33.49 | 27.13 | 38.46 | 17.25 | 125 | 0.00 | 0.06 |
| 874 | 98.22 | 57.59 | 32.67 | 11.33 | 95 | 0.00 | 0.00 |
| 883 | | | | | 133 | 0.00 | 0.00 |
| 902 | 24.29 | 14.45 | 8.61 | 4.01 | 270 | 1.23 | 0.00 |
| 922 | | 78.87 | | 25.93 | 154 | 0.00 | 0.00 |
| 923 | | 29.27 | | 7.38 | 122 | 4.62 | 0.00 |
| 971 | 38.41 | 21.61 | 21.90 | 13.22 | 91 | 8.43 | 0.27 |
| 982 | 26.68 | 129.02 | 66.83 | 32.42 | 111 | 7.15 | 0.00 |
| 984 | 20.38 | 41.78 | 10.38 | 11.53 | 62 | 8.11 | 0.29 |
| 991 | 40.19 | 38.11 | 36.11 | 20.17 | 77 | 1.72 | 0.01 |
| <hr/> | | | | | | | |
| SCHOOLS FOR WHICH | 5 | 404 | 5 | 404 | 585 | | |
| VALUES ARE UNDEFINED | 151 | 532 | 151 | 532 | | | |
| | 213 | 645 | 213 | 645 | | | |
| | 245 | 883 | 245 | 883 | | | |
| | 262 | | 262 | | | | |
| | 265 | | 265 | | | | |
| | 384 | | 384 | | | | |
| | 403 | | 403 | | | | |
| | 404 | | 404 | | | | |
| | 453 | | 453 | | | | |
| | 482 | | 482 | | | | |
| | 493 | | 493 | | | | |
| | 511 | | 511 | | | | |
| | 532 | | 532 | | | | |
| | 824 | | 824 | | | | |
| | 863 | | 883 | | | | |
| | 922 | | 922 | | | | |
| | 923 | | 923 | | | | |

TABLE J.38

USAGE OF FACILITIES - SECTION 2

PODIATRY

| | <.....CLASSROOMS.....> | | <.....CLASSLAB.....> | | NASF OF | | AMBULATORY |
|-------------------|------------------------|----------|----------------------|----------|-----------|---------|------------|
| | PERCENT | PERCENT | PERCENT | PERCENT | OFFICE | BEDS | PATIENT |
| | ROOM | STUDENT | ROOM | STUDENT | SPACE PER | PER | STATIONS |
| | UTILIZA- | UTILIZA- | UTILIZA- | UTILIZA- | FACULTY | STUDENT | PER |
| | TION | TION | TION | TION | MEMBER | | STUDENT |
| | (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| TOTAL | 35.10 | 30.06 | 23.08 | 39.72 | 68 | 3.21 | 0.23 |
| NUMBER OF SCHOOLS | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| MEAN | 36.09 | 29.87 | 24.25 | 49.70 | 76 | 3.32 | 0.26 |
| HIGH | 47.60 | 38.24 | 38.46 | 85.58 | 167 | 6.56 | 0.64 |
| LOW | 22.07 | 22.42 | 16.35 | 17.44 | 33 | 0.10 | 0.08 |
| 082 | 22.07 | 32.92 | 16.35 | 26.36 | 59 | 0.84 | 0.16 |
| 191 | 47.60 | 22.42 | 38.46 | 61.47 | 62 | 0.10 | 0.08 |
| 264 | 41.71 | 38.24 | 26.06 | 57.64 | 167 | 6.15 | 0.14 |
| 644 | 33.65 | 28.04 | 20.77 | 85.58 | 59 | 6.56 | 0.64 |
| 833 | 35.42 | 27.76 | 19.62 | 17.44 | 33 | 2.96 | 0.26 |

TABLE J.39

USAGE OF FACILITIES - SECTION 2

PUBLIC HEALTH

| | <*****CLASSROOMS*****> | | <*****CLASSLAB*****> | | NASF OF OFFICE SPACE PER FACULTY MEMBER | BEDS PER STUDENT | AMBULATORY PATIENT STATIONS PER STUDENT |
|---|--|--|--|--|---|------------------------|---|
| | PERCENT ROOM UTILIZA- TION (1) | PERCENT STUDENT STATION UTILIZA- TION (2) | PERCENT ROOM UTILIZA- TION (3) | PERCENT STUDENT STATION UTILIZA- TION (4) | (5) | (6) | (7) |
| TOTAL | 31.90 | 19.12 | 36.16 | 43.06 | 195 | 0.07 | 0.01 |
| NUMBER OF SCHOOLS | 11 | 11 | 11 | 9 | 12 | 13 | 13 |
| MEAN | 31.68 | 27.67 | 35.83 | 42.82 | 215 | 0.10 | 0.01 |
| HIGH | 55.67 | 44.68 | 88.46 | 185.74 | 531 | 1.36 | 0.12 |
| LOW | 0.00 | 6.51 | 0.00 | 3.44 | 71 | 0.00 | 0.00 |
| 032 | 46.96 | | 88.46 | | 182 | 0.00 | 0.00 |
| 154 | 54.46 | 20.17 | 34.82 | 21.27 | 152 | 0.00 | 0.00 |
| 223 | 25.89 | 41.55 | 9.25 | 38.30 | 158 | 0.00 | 0.00 |
| 251 | 44.68 | 41.06 | 41.01 | 34.69 | 184 | 0.00 | 0.02 |
| 272 | | | | | 161 | 0.00 | 0.00 |
| 291 | 28.37 | 44.68 | 23.00 | 5.48 | 333 | 0.00 | 0.00 |
| 381 | 55.67 | 42.27 | 55.67 | 30.60 | 145 | 0.00 | 0.00 |
| 494 | | 8.99 | | | 531 | 1.36 | 0.12 |
| 681 | 15.61 | 30.01 | 67.79 | 10.16 | 169 | 0.00 | 0.00 |
| 762 | 20.13 | 9.01 | 26.70 | 55.73 | 163 | 0.00 | 0.00 |
| 763 | 0.00 | 42.79 | 0.00 | | 71 | 0.00 | 0.00 |
| 834 | 48.11 | 6.51 | 42.84 | 185.74 | | 0.00 | 0.00 |
| 882 | 8.57 | 17.38 | 4.62 | 3.44 | 325 | 0.00 | 0.00 |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | 272 | 32 | 272 | 32 | 834 | | |
| | 494 | 272 | 494 | 272 | | | |
| | | | | 494 | | | |
| | | | | 763 | | | |

TABLE J.40

USAGE OF FACILITIES - SECTION 2

VETERINARY MEDICINE

| | <*****CLASSROOMS*****> | | <*****CLASSLAB*****> | | NASE OF OFFICE SPACE PER FACULTY MEMBER (5) | BEDS PER STUDENT (6) | AMBULATORY PATIENT STATIONS PER STUDENT (7) |
|---|--|--|--|--|--|-------------------------------|--|
| | PERCENT ROOM UTILIZA- TION (1) | PERCENT STUDENT STATION UTILIZA- TION (2) | PERCENT ROOM UTILIZA- TION (3) | PERCENT STUDENT STATION UTILIZA- TION (4) | | | |
| TOTAL NUMBER OF SCHOOLS | 39.09 13 | 20.11 15 | 33.81 13 | 17.34 15 | 116 18 | 0.58 18 | 0.07 18 |
| MEAN | 33.63 | 31.82 | 27.76 | 21.61 | 122 | 0.54 | 0.06 |
| HIGH | 61.46 | 155.34 | 61.56 | 87.44 | 216 | 0.97 | 0.41 |
| LOW | 13.90 | 7.39 | 3.05 | 8.44 | 20 | 0.00 | 0.00 |
| 002 | 25.20 | 18.88 | 20.80 | 13.13 | 138 | 0.61 | 0.04 |
| 021 | 16.48 | 9.80 | 3.05 | 13.57 | 130 | 0.60 | 0.04 |
| 043 | | | | | 20 | 0.71 | 0.05 |
| 061 | 13.90 | 14.37 | 34.00 | 14.74 | 73 | 0.61 | 0.07 |
| 165 | 46.52 | 22.34 | 61.56 | 28.65 | 109 | 0.60 | 0.06 |
| 243 | 40.19 | 19.27 | 16.12 | 13.55 | 145 | 0.52 | 0.03 |
| 292 | | 68.98 | | 10.56 | 150 | 0.97 | 0.03 |
| 321 | | 155.34 | | 87.44 | 121 | 0.94 | 0.08 |
| 354 | 28.35 | 7.39 | 22.63 | 8.44 | 152 | 0.60 | 0.04 |
| 363 | 28.21 | 12.35 | 9.62 | 19.01 | 64 | 0.49 | 0.04 |
| 392 | 35.41 | 22.72 | 24.04 | 21.17 | 66 | 0.60 | 0.41 |
| 424 | 51.17 | 12.42 | 55.02 | 16.54 | 163 | 0.40 | 0.07 |
| 442 | 33.94 | 13.38 | 10.66 | 15.23 | 84 | 0.43 | 0.03 |
| 502 | 40.38 | | 46.15 | | 216 | 0.00 | 0.00 |
| 545 | | 47.68 | | 20.79 | 141 | 0.56 | 0.03 |
| 551 | 61.46 | 37.02 | 32.94 | 20.88 | 95 | 0.57 | 0.11 |
| 622 | | | | | 200 | 0.00 | 0.00 |
| 784 | 15.53 | 15.41 | 24.34 | 20.49 | 131 | 0.56 | 0.03 |
| 851 | | | | | | | |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | 43 292 321 545 622 851 | 43 502 622 851 | 43 292 321 545 622 851 | 43 502 622 851 | 891 | 851 | 851 |

FOOTNOTES
USAGE OF FACILITIES - SECTION 2

1. For columns 1-4, Appendix G should be consulted to obtain insight into the manner in which the utilization percentages are computed. In particular, attention should be paid to the depressive effect of substituting 2,080 hours for the actually reported "length of academic year".
5. The number of faculty members is determined by adding the reported number of full-time faculty to the reported "full-time equivalent of part-time faculty".
6. The number of beds (animal holding units for schools of veterinary medicine) is obtained by adding the figures reported under "on-site patient care", owned and major affiliated hospitals, and "minor" affiliates. The number of students is obtained by adding full-time equivalent undergraduates to full-time equivalent graduate students as reported for fall, 1973.
7. Computations performed in parallel with those of column 6.

OVERVIEW OF ONGOING CONSTRUCTION & REMODELING OF CONTROLLED NONCLINICAL
INSTRUCTION FACILITIES: EXTENT & EFFECTS

DENTISTRY

| | GSF UNDER CONSTRUC- TION (000) (1) | NASF UNDER CONSTRUC- TION (000) (2) | CONSTRUC- TION COST (\$000) (3) | NASF (000) BEING REMODELED (4) | REMODELING COST (\$000) (5) | NASF/STU- DENT FOL- LOWING COMPLETION OF CON- STRUCTION (6) | NASF NEED- ED FOLLO- WING COM- PLETION OF CONSTRUC- TION (000) (7) | NEED AS A % OF IN- VENTORY AT COMPLE- TION OF CONSTR. (8) | POST-CON- STRUCTION NASF NEEDED PER STUDENT (9) |
|-------------------|---|--|--|---|--------------------------------------|---|--|---|--|
| TOTAL | 2332 | 647 | 142200 | 121 | 12459 | 152 | 552 | 17 | 24 |
| NUMBER OF SCHOOLS | 53 | 53 | 53 | 53 | 53 | 52 | 53 | 52 | 52 |
| MEAN | 44 | 12 | 2683 | 2 | 235 | 173 | 10 | 25 | 24 |
| HIGH | 454 | 142 | 27000 | 34 | 5000 | 845 | 90 | 135 | 151 |
| LOW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 081 | 45 | 0 | 4200 | 34 | 3000 | 201 | 0 | 0 | 0 |
| 085 | 0 | 0 | 0 | 0 | 0 | 39 | 6 | 26 | 10 |
| 102 | 0 | 0 | 0 | 0 | 0 | 102 | 12 | 21 | 22 |
| 124 | 0 | 0 | 0 | 0 | 0 | 232 | 3 | 4 | 9 |
| 132 | 0 | 0 | 0 | 2 | 500 | 69 | 20 | 65 | 44 |
| 135 | 0 | 0 | 0 | 0 | 0 | 139 | 27 | 40 | 56 |
| 192 | 0 | 0 | 0 | 14 | 1240 | 400 | 0 | 0 | 0 |
| 193 | 400 | 109 | 27000 | 0 | 0 | 162 | 0 | 0 | 0 |
| 231 | 0 | 0 | 0 | 0 | 0 | 66 | 19 | 90 | 60 |
| 242 | 133 | 50 | 11898 | 0 | 0 | 124 | 0 | 0 | 0 |
| 244 | 0 | 0 | 0 | 0 | 0 | 208 | 0 | 0 | 0 |
| 305 | 0 | 0 | 0 | 0 | 0 | 164 | 90 | 92 | 151 |
| 314 | 0 | 0 | 0 | 0 | 0 | 123 | 0 | 0 | 0 |
| 335 | 454 | 142 | 22109 | 0 | 0 | 612 | 0 | 0 | 0 |
| 352 | 0 | 0 | 0 | 0 | 0 | 99 | 0 | 0 | 0 |
| 361 | 16 | 6 | 1400 | 0 | 0 | 133 | 0 | 0 | 0 |
| 383 | 0 | 0 | 0 | 3 | 140 | 101 | 0 | 0 | 0 |
| 423 | 0 | 0 | 0 | 0 | 0 | 112 | 23 | 82 | 92 |
| 445 | 0 | 0 | 0 | 0 | 12 | 138 | 21 | 36 | 50 |
| 462 | 0 | 0 | 0 | 0 | 0 | 102 | 17 | 37 | 38 |
| 471 | 0 | 0 | 0 | 1 | 500 | 137 | 9 | 16 | 22 |
| 473 | 193 | 44 | 10388 | 0 | 0 | 147 | 0 | 0 | 0 |
| 474 | 187 | 42 | 10750 | 0 | 0 | 201 | 0 | 0 | 0 |
| 491 | 0 | 0 | 0 | 0 | 0 | 117 | 0 | 0 | 0 |
| 513 | 0 | 0 | 0 | 0 | 0 | 118 | 10 | 31 | 37 |
| 552 | 0 | 0 | 15 | 1 | 42 | 128 | 15 | 50 | 64 |
| 564 | 0 | 0 | 0 | 0 | 0 | 161 | 9 | 16 | 26 |
| 565 | 0 | 0 | 0 | 0 | 0 | 48 | 15 | 125 | 60 |
| 591 | 43 | 14 | 3313 | 7 | 328 | 210 | 0 | 0 | 0 |
| 592 | 0 | 0 | 0 | 0 | 0 | 160 | 12 | 23 | 37 |
| 603 | 194 | 66 | 15790 | 0 | 0 | 239 | 0 | 0 | 0 |
| 605 | 0 | 0 | 0 | 10 | 510 | 82 | 26 | 49 | 40 |
| 633 | 0 | 0 | 0 | 0 | 0 | 162 | 0 | 0 | 0 |
| 641 | 0 | 0 | 0 | 0 | 0 | 289 | 0 | 0 | 0 |
| 642 | 0 | 0 | 0 | 0 | 0 | 369 | 0 | 0 | 0 |
| 701 | 0 | 0 | 0 | 0 | 0 | 105 | 8 | 16 | 17 |
| 704 | 0 | 0 | 0 | 32 | 5000 | 198 | 0 | 0 | 0 |
| 715 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 733 | 0 | 0 | 0 | 0 | 0 | 87 | 0 | 0 | 0 |
| 751 | 0 | 0 | 0 | 0 | 0 | 52 | 27 | 112 | 59 |
| 764 | 0 | 0 | 0 | 2 | 139 | 140 | 7 | 8 | 11 |
| 792 | 0 | 0 | 0 | 13 | 53 | 260 | 0 | 0 | 0 |
| 904 | 0 | 0 | 0 | 0 | 0 | 136 | 34 | 47 | 63 |

TABLE J.41 (Continued)

OVERVIEW OF ONGOING CONSTRUCTION & REMODELING OF CONTROLLED NONCLINICAL
INSTRUCTION FACILITIES: EXTENT & EFFECTS

DENTISTRY

(CONTINUED)

| | GSF UNDER CONSTRUC- TION (000) (1) | NASF UNDER CONSTRUC- TION (000) (2) | CONSTRUC- TION COST (\$000) (3) | NASF (000) BEING REMODELED (4) | REMODELING COST (\$000) (5) | NASF/STU- DENT FOL- LOWING COMPLETION OF CON- STRUCTION (6) | NASF NEED- ED FOLLOW- ING COM- PLETION OF CONSTRUC- TION (000) (7) | NEED AS A % OF IN- VENTORY AT COMPLE- TION OF CONSTR. (8) | POST-CON- STRUCTION NASF NEEDED PER STUDENT (9) |
|---|---|--|--|---|--------------------------------------|---|--|---|--|
| 821 | 410 | 115 | 17401 | 0 | 0 | 845 | 0 | 0 | 0 |
| 832 | 39 | 10 | 2536 | 0 | 25 | 0 | 0 | 0 | 0 |
| 853 | 0 | 0 | 0 | 0 | 0 | 96 | 84 | 135 | 130 |
| 854 | 0 | 0 | 0 | 0 | 0 | 213 | 3 | 8 | 15 |
| 862 | 0 | 0 | 0 | 2 | 300 | 187 | 0 | 0 | 0 |
| 911 | 0 | 0 | 0 | 0 | 0 | 96 | 0 | 0 | 0 |
| 913 | 0 | 0 | 0 | 0 | 50 | 101 | 29 | 78 | 79 |
| 941 | 30 | 21 | 900 | 0 | 0 | 401 | 0 | 0 | 0 |
| 942 | 188 | 28 | 14500 | 0 | 0 | 57 | 26 | 93 | 53 |
| 944 | 0 | 0 | 0 | 0 | 0 | 131 | 0 | 0 | 0 |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | | | | | | 832 | 715 | 832 | |

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| | GSF UNDER CONSTRUC- TION (000) (1) | NASF UNDER CONSTRUC- TION (000) (2) | CONSTRUC- TION COST (\$000) (3) | NASF (000) BEING REMODELED (4) | REMODELING COST (\$000) (5) | NASF/STU- DENT FOL- LOWING COMPLETION OF CON- STRUCTION (6) | NASF NEED- ED FOLLOW- ING COM- PLETION OF CONSTRUC- TION (000) (7) | NEED AS A % OF IN- VENTORY AT COMPLE- TION OF CONSTR. (8) | POST-CON- STRUCTION NASF NEEDED PER STUDENT (9) |
|-------------------|---|--|--|---|--------------------------------------|---|--|---|--|
| TOTAL | 10437 | 4947 | 721921 | 1008 | 52638 | 409 | 4117 | 18 | 75 |
| NUMBER OF SCHOOLS | 95 | 95 | 95 | 95 | 95 | 94 | 95 | 94 | 94 |
| MEAN | 110 | 52 | 7599 | 11 | 554 | 431 | 43 | 27 | 79 |
| HIGH | 907 | 533 | 69677 | 109 | 6000 | 1196 | 384 | 530 | 741 |
| LOW | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 022 | 0 | 0 | 0 | 9 | 120 | 311 | 0 | 0 | 0 |
| 023 | 0 | 0 | 0 | 0 | 0 | 115 | 0 | 0 | 0 |
| 024 | 0 | 0 | 0 | 0 | 0 | 395 | 150 | 79 | 312 |
| 025 | 0 | 0 | 0 | 0 | 0 | 322 | 14 | 30 | 96 |
| 054 | 0 | 0 | 0 | 40 | 1100 | 962 | 166 | 30 | 287 |
| 055 | 0 | 0 | 0 | 0 | 0 | 328 | 384 | 226 | 741 |
| 074 | 0 | 0 | 0 | 17 | 500 | 689 | 14 | 4 | 26 |
| 091 | 0 | 0 | 0 | 0 | 0 | 273 | 2 | 2 | 6 |
| 094 | 314 | 109 | 20479 | 17 | 612 | 1196 | 63 | 10 | 124 |
| 095 | 200 | 73 | 12400 | 0 | 0 | 278 | 280 | 140 | 389 |
| 112 | 0 | 0 | 0 | 0 | 0 | 292 | 24 | 14 | 40 |
| 121 | 197 | 100 | 11110 | 0 | 0 | 391 | 41 | 41 | 160 |
| 133 | 0 | 0 | 0 | 0 | 0 | 406 | 39 | 8 | 32 |
| 134 | 426 | 228 | 27281 | 109 | 4000 | 755 | 0 | 0 | 0 |
| 141 | 0 | 0 | 0 | 0 | 0 | 667 | 0 | 0 | 0 |
| 142 | 0 | 0 | 0 | 23 | 726 | 330 | 76 | 29 | 96 |
| 145 | 0 | 0 | 0 | 9 | 145 | 463 | 0 | 0 | 0 |
| 152 | 0 | 81 | 16023 | 0 | 0 | 104 | 63 | 72 | 75 |
| 153 | 26 | 8 | 1411 | 0 | 0 | 106 | 0 | 0 | 0 |
| 172 | 42 | 21 | 1800 | 0 | 0 | 0 | 0 | 0 | 0 |
| 184 | 0 | 0 | 0 | 0 | 0 | 425 | 0 | 0 | 0 |
| 203 | 193 | 64 | 14061 | 10 | 231 | 454 | 187 | 39 | 176 |
| 212 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 215 | 353 | 186 | 35000 | 0 | 0 | 365 | 186 | 64 | 232 |
| 222 | 0 | 0 | 0 | 0 | 0 | 200 | 0 | 0 | 0 |
| 224 | 0 | 0 | 0 | 0 | 0 | 224 | 12 | 20 | 46 |
| 241 | 0 | 0 | 0 | 0 | 0 | 282 | 81 | 56 | 158 |
| 252 | 0 | 0 | 0 | 32 | 2705 | 235 | 63 | 20 | 47 |
| 254 | 0 | 0 | 0 | 7 | 504 | 451 | 30 | 10 | 45 |
| 275 | 633 | 287 | 29378 | 32 | 4600 | 642 | 90 | 16 | 102 |
| 283 | 110 | 64 | 7000 | 0 | 0 | 406 | 193 | 79 | 321 |
| 295 | 91 | 52 | 5000 | 62 | 2500 | 509 | 0 | 0 | 0 |
| 311 | 0 | 0 | 0 | 0 | 0 | 273 | 39 | 36 | 99 |
| 315 | 521 | 209 | 27847 | 0 | 0 | 730 | 22 | 9 | 67 |
| 324 | 0 | 0 | 0 | 0 | 0 | 296 | 90 | 35 | 104 |
| 333 | 15 | 12 | 1317 | 23 | 1895 | 347 | 25 | 11 | 38 |
| 341 | 0 | 0 | 0 | 0 | 252 | 238 | 11 | 12 | 28 |
| 345 | 0 | 0 | 0 | 0 | 0 | 414 | 35 | 16 | 67 |
| 362 | 0 | 0 | 0 | 0 | 0 | 125 | 122 | 60 | 75 |
| 371 | 0 | 0 | 0 | 0 | 0 | 484 | 47 | 13 | 63 |
| 374 | 907 | 460 | 52500 | 0 | 0 | 578 | 0 | 0 | 0 |
| 393 | 230 | 93 | 13284 | 0 | 0 | 207 | 0 | 0 | 0 |
| 395 | 0 | 0 | 0 | 0 | 0 | 502 | 0 | 0 | 0 |

TABLE J.42 (Continued)

OVERVIEW OF ONGOING CONSTRUCTION & REMODELING OF CONTROLLED NONCLINICAL
INSTRUCTION FACILITIES: EXTENT & EFFECTS

MEDICINE

(CONTINUED)

| | GSF UNDER CONSTRUCTION (000) (1) | NASF UNDER CONSTRUCTION (000) (2) | CONSTRUCTION COST (000) (3) | NASF (000) BEING REMODELED (4) | REMODELING COST (000) (5) | NASF/STU- DENT FOL- LOWING COMPLETION OF CON- STRUCTION (6) | NASF NEED- ED FOLLOW- ING COM- PLETION OF CONSTRUC- TION (000) (7) | NEED AS A % OF IN- VENTORY AT COMPLE- TION OF CONSTR. (8) | POST-CON- STRUCTION NASF NEEDED PER STUDENT (9) |
|---|---|--|--------------------------------------|---|------------------------------------|---|--|---|--|
| 401 | 0 | 0 | 0 | 0 | 389 | 508 | 26 | 14 | 73 |
| 415 | 65 | 44 | 3100 | 51 | 1743 | 620 | 80 | 22 | 139 |
| 433 | 58 | 17 | 2525 | 80 | 6000 | 970 | 20 | 4 | 35 |
| 455 | 0 | 22 | 9662 | 0 | 0 | 119 | 49 | 45 | 53 |
| 472 | 0 | 0 | 0 | 28 | 1132 | 654 | 0 | 0 | 0 |
| 483 | 64 | 29 | 4562 | 7 | 84 | 190 | 10 | 11 | 20 |
| 484 | 143 | 0 | 7992 | 61 | 0 | 244 | 0 | 0 | 0 |
| 522 | 127 | 45 | 7300 | 39 | 1920 | 319 | 25 | 10 | 32 |
| 531 | 242 | 49 | 17385 | 0 | 0 | 888 | 41 | 10 | 83 |
| 543 | 0 | 0 | 0 | 7 | 163 | 226 | 23 | 16 | 36 |
| 562 | 9 | 2 | 440 | 0 | 0 | 288 | 14 | 10 | 30 |
| 563 | 0 | 0 | 0 | 7 | 68 | 385 | 31 | 64 | 323 |
| 574 | 207 | 0 | 2540 | 6 | 443 | 549 | 48 | 16 | 92 |
| 575 | 0 | 0 | 0 | 0 | 0 | 172 | 0 | 0 | 0 |
| 583 | 107 | 58 | 8336 | 37 | 1619 | 848 | 0 | 0 | 0 |
| 602 | 0 | 0 | 0 | 0 | 0 | 137 | 0 | 0 | 0 |
| 613 | 828 | 410 | 69677 | 0 | 195 | 1061 | 55 | 10 | 102 |
| 624 | 30 | 23 | 730 | 26 | 2170 | 341 | 31 | 18 | 60 |
| 635 | 125 | 68 | 7584 | 6 | 99 | 361 | 0 | 0 | 0 |
| 651 | 0 | 0 | 0 | 4 | 50 | 203 | 0 | 0 | 0 |
| 652 | 0 | 0 | 0 | 0 | 0 | 253 | 76 | 53 | 134 |
| 653 | 0 | 0 | 0 | 0 | 0 | 416 | 0 | 0 | 0 |
| 664 | 62 | 32 | 3196 | 0 | 0 | 743 | 0 | 0 | 0 |
| 671 | 36 | 24 | 3000 | 47 | 3000 | 1096 | 0 | 0 | 0 |
| 672 | 545 | 253 | 30500 | 0 | 0 | 633 | 0 | 0 | 0 |
| 683 | 0 | 0 | 0 | 0 | 0 | 473 | 27 | 23 | 111 |
| 711 | 0 | 0 | 0 | 0 | 0 | 68 | 35 | 73 | 50 |
| 714 | 0 | 0 | 0 | 0 | 0 | 3 | 0 | 0 | 0 |
| 731 | 827 | 533 | 58000 | 0 | 47 | 372 | 0 | 0 | 0 |
| 743 | 0 | 0 | 0 | 0 | 0 | 719 | 0 | 0 | 0 |
| 744 | 320 | 218 | 30650 | 26 | 1074 | 488 | 0 | 0 | 0 |
| 761 | 0 | 0 | 0 | 48 | 5209 | 231 | 93 | 70 | 163 |
| 772 | 0 | 0 | 0 | 7 | 145 | 908 | 75 | 15 | 138 |
| 774 | 0 | 0 | 0 | 0 | 0 | 433 | 0 | 0 | 0 |
| 783 | 0 | 0 | 0 | 0 | 0 | 746 | 27 | 9 | 69 |
| 802 | 0 | 0 | 0 | 0 | 0 | 682 | 0 | 0 | 0 |
| 813 | 644 | 346 | 38009 | 9 | 376 | 625 | 0 | 0 | 0 |
| 823 | 450 | 297 | 59400 | 0 | 0 | 306 | 0 | 0 | 0 |
| 831 | 0 | 0 | 0 | 0 | 0 | 324 | 137 | 61 | 190 |
| 863 | 50 | 43 | 1958 | 0 | 1432 | 293 | 7 | 3 | 9 |
| 864 | 40 | 26 | 2704 | 12 | 1400 | 232 | 0 | 0 | 0 |
| 872 | 0 | 0 | 0 | 0 | 0 | 590 | 0 | 0 | 0 |
| 891 | 0 | 0 | 0 | 11 | 0 | 101 | 175 | 530 | 534 |
| 903 | 0 | 0 | 0 | 0 | 0 | 294 | 0 | 0 | 0 |
| 904 | 0 | 0 | 0 | 6 | 120 | 1043 | 0 | 0 | 0 |
| 921 | 0 | 0 | 0 | 10 | 240 | 516 | 303 | 131 | 676 |
| 951 | 0 | 0 | 0 | 0 | 0 | 296 | 60 | 27 | 81 |
| 952 | 40 | 30 | 1500 | 27 | 1200 | 144 | 32 | 36 | 51 |
| 953 | 0 | 0 | 0 | 15 | 1700 | 293 | 21 | 7 | 21 |
| 954 | 0 | 0 | 0 | 0 | 0 | 288 | 0 | 0 | 0 |
| 962 | 216 | 0 | 13000 | 0 | 0 | 602 | 0 | 0 | 0 |
| 963 | 793 | 241 | 49280 | 0 | 0 | 383 | 15 | 22 | 82 |
| 973 | 159 | 90 | 13000 | 25 | 680 | | | | |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | | | | | | | | | |
| | | | | | | | | | 172 |
| | | | | | | | | | 212 |
| | | | | | | | | | 172 |

TABLE J.43

OVERVIEW OF ONGOING CONSTRUCTION & REMODELING OF CONTROLLED NONCLINICAL
INSTRUCTION FACILITIES: EXTENT & EFFECTS

OPTOMETRY

| | GSF UNDER CONSTRUCTION (000) (1) | NASF UNDER CONSTRUCTION (000) (2) | CONSTRUCTION COST (\$000) (3) | NASF (000) BEING REMODELED (4) | REMODELING COST (\$000) (5) | NASF/STUDENT FOLLOWING COMPLETION OF CONSTRUCTION (6) | NASF NEED-ED FOLLOWING COMPLETION OF CONSTRUCTION (000) (7) | NEED AS A % OF INVENTORY AT COMPLETION OF CONSTRUCTION (8) | POST-CONSTRUCTION NASF NEEDED PER STUDENT (9) |
|-------------------|--|---|-------------------------------------|--------------------------------------|-----------------------------------|---|--|---|--|
| TOTAL | 71 | 25 | 4511 | 0 | 0 | 100 | 73 | 25 | 25 |
| NUMBER OF SCHOOLS | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 | 10 |
| MEAN | 7 | 2 | 451 | 0 | 0 | 119 | 7 | 47 | 37 |
| HIGH | 71 | 25 | 4511 | 0 | 0 | 347 | 17 | 140 | 82 |
| LOW | 0 | 0 | 0 | 0 | 0 | 40 | 0 | 0 | 0 |
| 065 | 0 | 0 | 0 | 0 | 0 | 71 | 0 | 0 | 0 |
| 072 | 0 | 0 | 0 | 0 | 0 | 74 | 4 | 11 | 8 |
| 101 | 71 | 25 | 4511 | 0 | 0 | 139 | 0 | 0 | 0 |
| 211 | 0 | 0 | 0 | 0 | 0 | 131 | 6 | 18 | 23 |
| 235 | 0 | 0 | 0 | 0 | 0 | 40 | 14 | 140 | 56 |
| 281 | 0 | 0 | 0 | 0 | 0 | 82 | 12 | 80 | 65 |
| 334 | 0 | 0 | 0 | 0 | 0 | 62 | 17 | 121 | 75 |
| 634 | 0 | 0 | 0 | 0 | 0 | 175 | 0 | 0 | 0 |
| 892 | 0 | 0 | 0 | 0 | 0 | 70 | 16 | 80 | 56 |
| 933 | 0 | 0 | 0 | 0 | 0 | 347 | 4 | 24 | 82 |

TABLE J.44

OVERVIEW OF ONGOING CONSTRUCTION & REMODELING OF CONTROLLED NONCLINICAL
INSTRUCTION FACILITIES: EXTENT & EFFECTS

OSTEOPATHY

| | GSF UNDER CONSTRUC- TION (000) (1) | NASF UNDER CONSTRUC- TION (000) (2) | CONSTRUC- TION COST (\$000) (3) | NASF (000) BEING REMODELED (4) | REMODELING COST (\$000) (5) | NASF/STU- DENT FOL- LOWING COMPLETION OF CON- STRUCTION (6) | NASF NEED- ED FOLLOW- ING COM- PLETION OF CONSTRUC- TION (000) (7) | NEED AS A % OF IN- VENTORY AT COMPLE- TION OF CONSTR. (8) | POST-CON- STRUCTION NASF NEEDED PER STUDENT (9) |
|-------------------|---|--|--|---|--------------------------------------|---|--|---|--|
| TOTAL | 218 | 51 | 12000 | 22 | 970 | 145 | 36 | 12 | 18 |
| NUMBER OF SCHOOLS | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| MEAN | 44 | 10 | 2400 | 4 | 194 | 150 | 7 | 15 | 23 |
| HIGH | 218 | 51 | 12000 | 10 | 505 | 224 | 19 | 42 | 74 |
| LOW | 0 | 0 | 0 | 0 | 0 | 76 | 0 | 0 | 0 |
| 033 | 0 | 0 | 0 | 0 | 0 | 173 | 17 | 42 | 74 |
| 062 | 218 | 51 | 12000 | 0 | 0 | 224 | 0 | 0 | 0 |
| 293 | 0 | 0 | 0 | 10 | 45 | 76 | 0 | 0 | 0 |
| 303 | 0 | 0 | 0 | 2 | 505 | 130 | 19 | 33 | 43 |
| 402 | 0 | 0 | 0 | 10 | 420 | 148 | 0 | 0 | 0 |

TABLE J.45

OVERVIEW OF ONGOING CONSTRUCTION & REMODELING OF CONTROLLED NONCLINICAL
INSTRUCTION FACILITIES: EXTENT & EFFECTS

PHARMACY

| | GSF UNDER CONSTRUC- TION (000) (1) | NASF UNDER CONSTRUC- TION (000) (2) | CONSTRUC- TION COST (\$000) (3) | NASF (000) BEING REMODELED (4) | REMODELING COST (\$000) (5) | NASF/STU- DENT FOL- LOWING COMPLETION OF CON- STRUCTION (6) | NASF NEED- ED FOLLOW- ING COM- PLETION OF CONSTRUC- TION (000) (7) | NEED AS A % OF IN- VENTORY AT COMPLE- TION OF CONSTR. (8) | POST-CON- STRUCTION NASF NEEDED PER STUDENT (9) |
|-------------------|---|--|--|---|--------------------------------------|---|--|---|--|
| TOTAL | 569 | 331 | 22492 | 44 | 661 | 82 | 473 | 21 | 17 |
| NUMBER OF SCHOOLS | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 | 64 |
| MEAN | 9 | 5 | 351 | 1 | 10 | 92 | 7 | 31 | 21 |
| HIGH | 165 | 90 | 7646 | 9 | 187 | 393 | 39 | 236 | 121 |
| LOW | 0 | 0 | 0 | 0 | 0 | 18 | 0 | 0 | 0 |
| 005 | 0 | 0 | 0 | 0 | 0 | 60 | 8 | 62 | 37 |
| 011 | 80 | 47 | 4000 | 0 | 0 | 119 | 23 | 49 | 59 |
| 041 | 0 | 0 | 0 | 1 | 15 | 51 | 0 | 0 | 0 |
| 052 | 0 | 0 | 0 | 0 | 0 | 113 | 1 | 4 | 5 |
| 105 | 7 | 6 | 180 | 6 | 187 | 79 | 0 | 0 | 0 |
| 143 | 0 | 0 | 0 | 1 | 16 | 26 | 0 | 0 | 0 |
| 144 | 0 | 0 | 0 | 0 | 0 | 81 | 5 | 10 | 8 |
| 151 | 0 | 0 | 0 | 0 | 0 | 51 | 33 | 236 | 121 |
| 181 | 0 | 0 | 0 | 0 | 0 | 76 | 6 | 43 | 32 |
| 195 | 0 | 0 | 0 | 0 | 0 | 66 | 8 | 40 | 26 |
| 204 | 0 | 0 | 0 | 0 | 0 | 59 | 5 | 16 | 10 |
| 213 | 0 | 0 | 0 | 0 | 0 | 86 | 17 | 55 | 47 |
| 245 | 0 | 0 | 0 | 0 | 0 | 44 | 29 | 112 | 49 |
| 262 | 0 | 0 | 0 | 0 | 0 | 169 | 20 | 19 | 32 |
| 263 | 0 | 0 | 0 | 0 | 0 | 130 | 30 | 71 | 93 |
| 265 | 0 | 0 | 0 | 0 | 0 | 44 | 13 | 39 | 17 |
| 294 | 0 | 0 | 0 | 0 | 0 | 35 | 3 | 15 | 5 |
| 313 | 0 | 0 | 0 | 0 | 0 | 55 | 5 | 14 | 7 |
| 344 | 0 | 0 | 0 | 0 | 0 | 109 | 10 | 20 | 21 |
| 375 | 0 | 0 | 0 | 0 | 0 | 108 | 0 | 0 | 0 |
| 382 | 0 | 0 | 0 | 0 | 0 | 107 | 0 | 0 | 0 |
| 384 | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 0 | 0 |
| 403 | 0 | 0 | 0 | 0 | 0 | 55 | 20 | 111 | 61 |
| 404 | 0 | 0 | 0 | 0 | 10 | 47 | 2 | 12 | 6 |
| 422 | 0 | 0 | 0 | 0 | 0 | 30 | 2 | 20 | 6 |
| 453 | 0 | 0 | 0 | 0 | 0 | 64 | 2 | 20 | 13 |
| 454 | 0 | 0 | 0 | 0 | 0 | 62 | 21 | 117 | 73 |
| 461 | 0 | 0 | 0 | 0 | 0 | 71 | 11 | 26 | 19 |
| 465 | 0 | 0 | 0 | 0 | 0 | 99 | 6 | 21 | 21 |
| 482 | 0 | 0 | 0 | 8 | 81 | 115 | 0 | 0 | 0 |
| 493 | 54 | 27 | 3952 | 0 | 0 | 154 | 0 | 0 | 0 |
| 511 | 90 | 45 | 4750 | 0 | 0 | 72 | 0 | 0 | 0 |
| 514 | 0 | 0 | 0 | 0 | 0 | 58 | 13 | 52 | 30 |
| 523 | 0 | 0 | 0 | 0 | 0 | 49 | 30 | 200 | 97 |
| 532 | 0 | 0 | 0 | 0 | 0 | 125 | 6 | 16 | 20 |
| 535 | 0 | 0 | 0 | 2 | 22 | 81 | 4 | 19 | 15 |
| 571 | 0 | 0 | 0 | 0 | 0 | 49 | 14 | 175 | 86 |
| 572 | 0 | 0 | 0 | 0 | 0 | 121 | 8 | 22 | 26 |
| 585 | 0 | 0 | 0 | 0 | 0 | 100 | 0 | 0 | 0 |
| 594 | 0 | 0 | 0 | 0 | 0 | 62 | 0 | 0 | 0 |
| 621 | 0 | 0 | 0 | 3 | 180 | 61 | 9 | 24 | 15 |
| 645 | 0 | 0 | 0 | 8 | 30 | 104 | 0 | 0 | 0 |
| 663 | 0 | 0 | 0 | 0 | 0 | 61 | 0 | 0 | 0 |

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TABLE J.45 (Continued)

OVERVIEW OF ONGOING CONSTRUCTION & REMODELING OF CONTROLLED NONCLINICAL
INSTRUCTION FACILITIES: EXTENT & EFFECTS

PHARMACY

(CONTINUED)

| | GSF UNDER CONSTRUC- TION (000) (1) | NASF UNDER CONSTRUC- TION (000) (2) | CONSTRUC- TION COST (\$000) (3) | NASF (000) BEING REMODELED (4) | REMODELING COST (\$000) (5) | NASF/STU- DENT FOL- LOWING COMPLETION OF CON- STRUCTION (6) | NASF NEED- ED FOLLOW- ING COM- PLETION OF CONSTRUC- TION (000) (7) | NEED AS A % OF IN- VENTORY AT COMPLE- TION OF CONSTR. (8) | POST-CON- STRUCTION NASF NEEDED PER STUDENT (9) |
|-----|---|--|--|---|--------------------------------------|---|--|---|--|
| 665 | 0 | 0 | 0 | 0 | 0 | 145 | 0 | 0 | 0 |
| 684 | 0 | 0 | 0 | 0 | 0 | 140 | 0 | 0 | 0 |
| 692 | 0 | 0 | 0 | 0 | 0 | 57 | 0 | 0 | 0 |
| 693 | 40 | 24 | 1929 | 0 | 0 | 72 | 3 | 12 | 9 |
| 703 | 0 | 0 | 0 | 0 | 0 | 75 | 0 | 0 | 0 |
| 724 | 127 | 90 | 7646 | 0 | 0 | 207 | 3 | 3 | 7 |
| 742 | 0 | 0 | 0 | 0 | 0 | 214 | 0 | 0 | 0 |
| 753 | 0 | 0 | 0 | 0 | 0 | 140 | 3 | 9 | 13 |
| 801 | 0 | 0 | 0 | 0 | 0 | 207 | 0 | 0 | 0 |
| 812 | 0 | 0 | 0 | 0 | 0 | 166 | 0 | 0 | 0 |
| 824 | 0 | 0 | 0 | 0 | 0 | 74 | 39 | 128 | 93 |
| 841 | 6 | 6 | 35 | 1 | 14 | 146 | 2 | 6 | 9 |
| 874 | 0 | 0 | 0 | 1 | 6 | 28 | 1 | 5 | 1 |
| 883 | 0 | 6 | 0 | 4 | 80 | 18 | 0 | 0 | 0 |
| 902 | 0 | 0 | 0 | 0 | 0 | 100 | 13 | 19 | 19 |
| 922 | 0 | 0 | 0 | 0 | 0 | 35 | 0 | 0 | 0 |
| 923 | 165 | 86 | 0 | 0 | 0 | 393 | 0 | 0 | 0 |
| 971 | 0 | 0 | 0 | 0 | 0 | 87 | 7 | 27 | 23 |
| 982 | 0 | 0 | 0 | 0 | 0 | 47 | 0 | 0 | 0 |
| 984 | 0 | 0 | 0 | 9 | 20 | 79 | 8 | 53 | 42 |
| 991 | 0 | 0 | 0 | 0 | 0 | 118 | 30 | 56 | 66 |

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TABLE J.46

OVERVIEW OF ONGOING CONSTRUCTION & REMODELING OF CONTROLLED NONCLINICAL
INSTRUCTION FACILITIES: EXTENT & EFFECTS

PODIATRY

| | GSF UNDER CONSTRUC- TION (000) (1) | NASF UNDER CONSTRUC- TION (000) (2) | CONSTRUC- TION COST (\$000) (3) | NASF (000) BEING REMODELED (4) | REMODELING COST (\$000) (5) | NASF/STU- DENT FOL- LOWING COMPLETION OF CON- STRUCTION (6) | NASF NEED- ED FOLLOW- ING COM- PLETION OF CONSTRUC- TION (000) (7) | NEED AS A % OF IN- VENTORY AT COMPLE- TION OF CONSTR. (8) | POST-CON- STRUCTION NASF NEEDED PER STUDENT (9) |
|-------------------|---|--|--|--------------------------------------|--------------------------------------|---|--|---|--|
| TOTAL | 209 | 86 | 14600 | 8 | 50 | 79 | 64 | 43 | 34 |
| NUMBER OF SCHOOLS | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| MEAN | 42 | 17 | 2920 | 2 | 10 | 78 | 13 | 100 | 40 |
| HIGH | 149 | 58 | 9100 | 8 | 50 | 129 | 28 | 244 | 95 |
| LOW | 0 | 0 | 0 | 0 | 0 | 28 | 0 | 0 | 0 |
| 082 | 0 | 0 | 0 | 0 | 0 | 82 | 0 | 0 | 0 |
| 191 | 60 | 28 | 5500 | 8 | 50 | 112 | 14 | 39 | 44 |
| 264 | 0 | 0 | 0 | 0 | 0 | 28 | 28 | 215 | 59 |
| 644 | 149 | 58 | 9100 | 0 | 0 | 129 | 0 | 0 | 0 |
| 833 | 0 | 0 | 0 | 0 | 0 | 39 | 22 | 244 | 95 |

TABLE J.47

OVERVIEW OF ONGOING CONSTRUCTION & REMODELING OF CONTROLLED NONCLINICAL
INSTRUCTION FACILITIES: EXTENT & EFFECTS

PUBLIC HEALTH

| | GSF UNDER CONSTRUCTION (000) (1) | NASF UNDER CONSTRUCTION (000) (2) | CONSTRUCTION COST (\$000) (3) | NASF (000) BEING REMODELED (4) | REMODELING COST (\$000) (5) | NASF/STU- DENT FOLLOW- ING COMPLETION OF CONSTRUCTION (6) | NASF NEED- ED FOLLOW- ING COMPLETION OF CONSTRUCTION (000) (7) | NEED AS A % OF IN- VENTORY AT COMPLE- TION OF CONSTR. (8) | POST-CON- STRUCTION NASF NEEDED PER STUDENT (9) |
|----------------------------|---|--|--|---|--------------------------------------|---|---|---|--|
| TOTAL NUMBER OF SCHOOLS | 34 | 13 | 2703 | 3 | 19 | 285 | 261 | 28 | 79 |
| MEAN | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 | 13 |
| HIGH | 34 | 13 | 2703 | 3 | 19 | 290 | 20 | 41 | 91 |
| LOW | 0 | 0 | 0 | 0 | 0 | 145 | 96 | 274 | 568 |
| 032 | 0 | 0 | 0 | 0 | 0 | 212 | 0 | 0 | 0 |
| 154 | 0 | 0 | 0 | 3 | 19 | 188 | 48 | 57 | 108 |
| 223 | 34 | 13 | 2703 | 0 | 0 | 151 | 17 | 30 | 46 |
| 251 | 0 | 0 | 0 | 0 | 0 | 145 | 7 | 26 | 38 |
| 272 | 0 | 0 | 0 | 0 | 0 | 290 | 5 | 56 | 161 |
| 291 | 0 | 0 | 0 | 0 | 0 | 257 | 37 | 47 | 121 |
| 381 | 0 | 0 | 0 | 0 | 0 | 187 | 0 | 0 | 0 |
| 494 | 0 | 0 | 0 | 0 | 0 | 207 | 96 | 274 | 568 |
| 681 | 0 | 0 | 0 | 0 | 0 | 274 | 9 | 20 | 55 |
| 762 | 0 | 0 | 0 | 0 | 0 | 408 | 42 | 21 | 86 |
| 763 | 0 | 0 | 0 | 0 | 0 | 371 | 0 | 0 | 0 |
| 834 | 0 | 0 | 0 | 0 | 0 | 339 | 0 | 0 | 0 |
| 882 | 0 | 0 | 0 | 0 | 0 | 745 | 0 | 0 | 0 |

TABLE J.48

OVERVIEW OF ONGOING CONSTRUCTION & REMODELING OF CONTROLLED NONCLINICAL
INSTRUCTION FACILITIES: EXTENT & EFFECTS

VETERINARY MEDICINE

| | GSF UNDER CONSTRUC- TION (000) (1) | NASF UNDER CONSTRUC- TION (000) (2) | CONSTRUC- TION COST (\$000) (3) | NASF (000) BEING REMODELED (4) | REMODELING COST (\$000) (5) | NASF/STU- DENT FOL- LOWING COMPLETION OF CON- STRUCTION (6) | NASF NEED- ED FOLLOW- ING COM- PLETION OF CONSTRUC- TION (000) (7) | NEED AS A % OF IN- VENTORY AT COMPLE- TION OF CONSTR. (8) | POST-CON- STRUCTION NASF NEEDED PER STUDENT (9) |
|---|---|--|--|---|--------------------------------------|---|--|---|--|
| TOTAL | 1005 | 422 | 61313 | 47 | 1655 | 327 | 930 | 41 | 134 |
| NUMBER OF SCHOOLS | 19 | 19 | 19 | 19 | 19 | 18 | 19 | 18 | 18 |
| MEAN | 53 | 22 | 3227 | 2 | 87 | 319 | 49 | 41 | 132 |
| HIGH | 324 | 116 | 18980 | 12 | 484 | 701 | 169 | 158 | 436 |
| LOW | 0 | 0 | 0 | 0 | 0 | 70 | 0 | 0 | 0 |
| 002 | 0 | 0 | 0 | 0 | 0 | 477 | 47 | 30 | 144 |
| 021 | 0 | 0 | 0 | 0 | 0 | 278 | 31 | 26 | 73 |
| 043 | 0 | 0 | 0 | 0 | 0 | 70 | 0 | 0 | 0 |
| 061 | 14 | 4 | 350 | 4 | 250 | 136 | 16 | 53 | 73 |
| 165 | 0 | 0 | 0 | 1 | 38 | 363 | 0 | 0 | 0 |
| 243 | 126 | 67 | 9188 | 0 | 0 | 419 | 55 | 35 | 149 |
| 292 | 120 | 23 | 7567 | 0 | 0 | 308 | 16 | 11 | 33 |
| 321 | 0 | 0 | 0 | 0 | 0 | 241 | 68 | 65 | 158 |
| 354 | 0 | 0 | 0 | 10 | 338 | 250 | 121 | 83 | 209 |
| 363 | 0 | 0 | 0 | 0 | 0 | 275 | 133 | 158 | 436 |
| 392 | 0 | 0 | 0 | 0 | 0 | 196 | 1 | 2 | 3 |
| 424 | 3 | 0 | 75 | 9 | 484 | 260 | 9 | 13 | 34 |
| 442 | 243 | 116 | 14000 | 0 | 0 | 376 | 107 | 59 | 221 |
| 502 | 99 | 52 | 8400 | 0 | 0 | 276 | 106 | 85 | 234 |
| 545 | 0 | 0 | 0 | 12 | 104 | 307 | 51 | 61 | 189 |
| 551 | 76 | 48 | 2753 | 0 | 0 | 701 | 169 | 61 | 428 |
| 622 | 324 | 112 | 18980 | 0 | 0 | 311 | 0 | 0 | 0 |
| 784 | 0 | 0 | 0 | 11 | 441 | 504 | 0 | 0 | 0 |
| 851 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | | | | | | 851 | 851 | 851 | |

FOOTNOTES

OVERVIEW OF ONGOING CONSTRUCTION & REMODELING OF CONTROLLED NONCLINICAL INSTRUCTION FACILITIES: EXTENT & EFFECTS

6. The NASF figure used in the computations is that reported by respondents to represent their inventory (excluding "on-site patient care" and "other" facilities) following the completion of all ongoing construction and remodeling programs. The number of students used in the computation is the number of full-time equivalent graduate plus undergraduate students expected to be enrolled following the completion of these programs.
9. The figure displayed represents the ratio of column 7 to the number of fulltime equivalent undergraduate students expected to be enrolled following the completion of ongoing construction and remodeling.

TABLE J.49

THE 1983 LOOK AHEAD

DENTISTRY

| | ADDITIONAL NASF TO BE BUILT BY 1983 (000) (1) | ADDITIONAL NASF TO BE REMODELED BY 1983 (000) (2) | INVENTORY OF CONTROLLED NONCLINI- CAL SPACE (000) (3) | RATIO OF 1983 INVENTORY TO 1973 INVENTORY (4) | RATIO OF 1983 HEADCOUNT TO 1973 HEADCOUNT (5) |
|----------------------------|--|--|---|--|--|
| TOTAL NUMBER OF SCHOOLS | 1451 | 526 | 7237 | 1.64 | 1.24 |
| MEAN | 53 | 53 | 53 | 51 | 50 |
| HIGH | 27 | 10 | 137 | 2.29 | 2.00 |
| LOW | 235 | 96 | 404 | 20.57 | 15.42 |
| | 0 | 0 | 0 | 0.98 | 0.81 |
| 081 | 0 | 25 | 132 | 1.97 | 1.28 |
| 085 | 80 | 50 | 244 | 3.59 | 1.29 |
| 102 | 0 | 14 | 134 | 1.00 | 1.00 |
| 124 | 9 | 15 | 135 | 1.07 | 1.15 |
| 132 | 77 | 24 | 115 | 1.74 | 1.14 |
| 135 | 0 | 0 | 68 | 1.00 | 1.05 |
| 192 | 24 | 0 | 96 | 1.81 | 11.29 |
| 193 | 15 | 0 | 207 | 3.04 | 1.25 |
| 231 | 38 | 10 | 102 | 3.09 | 1.00 |
| 242 | 16 | 0 | 195 | 1.57 | 1.55 |
| 244 | 0 | 0 | 111 | 1.00 | 1.11 |
| 305 | 4 | 0 | 192 | 1.02 | 1.14 |
| 314 | 0 | 0 | 173 | 1.00 | 0.96 |
| 335 | 0 | 0 | 288 | 20.57 | 11.42 |
| 352 | 50 | 65 | 165 | 1.42 | 1.21 |
| 361 | 0 | 0 | 100 | 1.12 | 1.19 |
| 383 | 0 | 0 | 124 | 1.00 | 1.33 |
| 423 | 106 | 0 | 153 | 3.26 | 1.00 |
| 445 | 0 | 0 | 99 | 0.99 | 1.28 |
| 462 | 0 | 0 | 121 | 0.98 | 1.25 |
| 471 | 0 | 0 | 98 | 1.00 | 0.91 |
| 473 | 0 | 0 | 103 | 3.89 | 1.47 |
| 474 | 20 | 0 | 159 | 4.97 | 15.42 |
| 491 | 88 | 29 | 206 | 1.75 | 1.36 |
| 513 | 0 | 0 | 60 | 1.00 | 1.06 |
| 552 | 0 | 0 | 53 | 1.04 | 1.16 |
| 564 | 0 | 3 | 95 | 1.03 | 1.02 |
| 565 | 6 | 54 | 97 | 2.62 | 1.28 |
| 591 | 0 | 0 | 30 | 3.75 | |
| 592 | 36 | 9 | 145 | 1.45 | 1.17 |
| 603 | 0 | 0 | 197 | 2.56 | 1.75 |
| 605 | 20 | 35 | 112 | 1.20 | 1.16 |
| 633 | 0 | 0 | 96 | 1.00 | 1.19 |
| 641 | 51 | 0 | 112 | 1.67 | 3.01 |
| 642 | 0 | 0 | 203 | 1.00 | 1.78 |
| 701 | 34 | 0 | 134 | 1.34 | 1.17 |
| 704 | 140 | 0 | 140 | 2.19 | 1.06 |
| 715 | 0 | 0 | 0 | | |
| 733 | 0 | 0 | 38 | 1.00 | 1.00 |
| 751 | 60 | 54 | 167 | 2.65 | 1.18 |
| 764 | 154 | 9 | 257 | 1.99 | 1.03 |
| 792 | 70 | 0 | 404 | 1.84 | 1.02 |
| 804 | 0 | 0 | 122 | 1.00 | 1.06 |
| 821 | 0 | 0 | 241 | 9.64 | 4.81 |

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TABLE J.49 (Continued)

THE 1983 LOOK AHEAD

DENTISTRY

(CONTINUED)

| | ADDITIONAL NASF TO BE BUILT BY 1983 (000) (1) | ADDITIONAL NASF TO BE REMODELED BY 1983 (000) (2) | INVENTORY OF NONCLINI- CAL SPACE (000) (3) | RATIO OF 1983 INVENTORY TO 1973 INVENTORY (4) | RATIO OF 1983 HEADCOUNT TO 1973 HEADCOUNT (5) |
|---|--|--|---|--|--|
| 832 | 7 | 0 | 48 | 2.00 | |
| 853 | 235 | 96 | 331 | 3.45 | 0.81 |
| 854 | 0 | 0 | 64 | 1.00 | 2.39 |
| 862 | 0 | 0 | 46 | 1.00 | 1.00 |
| 911 | 0 | 0 | 74 | 1.00 | 1.08 |
| 913 | 0 | 0 | 67 | 1.00 | 1.00 |
| 941 | 80 | 0 | 201 | 1.76 | 1.84 |
| 942 | 0 | 0 | 70 | | 0.95 |
| 944 | 31 | 34 | 111 | 1.76 | 0.93 |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | | | | 715 942 | 591 715 832 |

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| | ADDITIONAL NASF TO BE BUILT BY 1983 (000) (1) | ADDITIONAL NASF TO BE REMODELED BY 1983 (000) (2) | INVENTORY OF NONCLINI- CAL SPACE (000) (3) | RATIO OF 1983 INVENTORY TO 1973 INVENTORY (4) | RATIO OF 1983 HEADCOUNT TO 1973 HEADCOUNT (5) |
|-------------------|--|--|---|--|--|
| TOTAL | 9806 | 2082 | 38735 | 1.62 | 1.33 |
| NUMBER OF SCHOOLS | 95 | 95 | 95 | 94 | 94 |
| MEAN | 103 | 22 | 408 | 2.06 | 1.78 |
| HIGH | 802 | 220 | 2346 | 19.07 | 16.16 |
| LOW | 0 | 0 | 0 | 0.44 | 0.91 |
| 022 | 0 | 0 | 110 | 1.00 | 1.58 |
| 023 | 0 | 0 | 58 | 1.00 | 1.80 |
| 024 | 0 | 0 | 245 | 1.00 | 1.06 |
| 025 | 0 | 0 | 56 | 1.00 | 1.00 |
| 054 | 0 | 220 | 808 | 1.31 | 1.08 |
| 055 | 802 | 0 | 1006 | 4.30 | 1.58 |
| 074 | 67 | 0 | 504 | 1.13 | 0.93 |
| 091 | 100 | 0 | 333 | 1.43 | 2.27 |
| 094 | 389 | 110 | 1283 | 1.33 | 1.30 |
| 095 | 55 | 0 | 319 | 1.72 | 1.23 |
| 112 | 0 | 0 | 199 | 1.00 | 0.92 |
| 121 | 60 | 0 | 170 | 9.44 | 16.16 |
| 133 | 0 | 0 | 572 | 1.00 | 1.18 |
| 134 | 0 | 0 | 561 | 1.74 | 1.39 |
| 141 | 0 | 0 | 447 | 1.00 | 1.23 |
| 142 | 66 | 0 | 325 | 1.12 | 1.13 |
| 145 | 250 | 0 | 250 | 0.80 | 0.96 |
| 152 | 0 | 0 | 90 | 3.60 | 2.29 |
| 153 | 0 | 0 | 34 | 1.48 | 4.00 |
| 172 | 72 | 0 | 128 | 3.88 | |
| 184 | 0 | 0 | 322 | 1.00 | 1.11 |
| 203 | 106 | 127 | 670 | 1.56 | 1.24 |
| 212 | 0 | 0 | 0 | | 1.07 |
| 215 | 0 | 0 | 432 | 2.59 | 13.11 |
| 222 | 0 | 0 | 81 | 1.00 | 1.00 |
| 224 | 20 | 11 | 31 | 0.50 | 1.49 |
| 241 | 100 | 0 | 175 | 1.05 | 1.25 |
| 252 | 126 | 113 | 584 | 1.68 | 1.79 |
| 254 | 0 | 30 | 365 | 1.00 | 1.27 |
| 275 | 90 | 0 | 1149 | 3.45 | 1.57 |
| 283 | 200 | 60 | 750 | 2.90 | 1.43 |
| 295 | 180 | 110 | 525 | 1.57 | 1.09 |
| 311 | 255 | 0 | 255 | 2.06 | 1.90 |
| 315 | 236 | 0 | 604 | 7.19 | 2.64 |
| 324 | 112 | 158 | 405 | 1.50 | 0.99 |
| 333 | 113 | 37 | 352 | 1.51 | 1.00 |
| 341 | 0 | 0 | 110 | 1.05 | 2.16 |
| 345 | 100 | 0 | 352 | 1.40 | 2.00 |
| 362 | 0 | 0 | 221 | 1.00 | 1.38 |
| 371 | 0 | 0 | 404 | 1.00 | 1.12 |
| 374 | 17 | 89 | 763 | 1.56 | 1.53 |
| 393 | 0 | 0 | 138 | 2.76 | 3.57 |
| 395 | 0 | 0 | 157 | 1.00 | 1.10 |
| 401 | 102 | 0 | 747 | | |

MEDICINE

THE 1983 LOOK AHEAD

(CONTINUED)

| | ADDITIONAL NASF TO BE BUILT BY 1983 (000) (1) | ADDITIONAL NASF TO BE REMODELED BY 1983 (000) (2) | INVENTORY OF NONCLINI- CAL SPACE (000) (3) | RATIO OF 1983 INVENTORY TO 1973 INVENTORY (4) | RATIO OF 1983 HEADCOUNT TO 1973 HEADCOUNT (5) |
|-----|--|--|---|--|--|
| 415 | 114 | 50 | 469 | 1.56 | 1.11 |
| 433 | 0 | 0 | 706 | 1.08 | 1.00 |
| 455 | 0 | 0 | 121 | 1.23 | 1.38 |
| 472 | 0 | 46 | 420 | 0.88 | 1.09 |
| 483 | 0 | 0 | 106 | 1.45 | 1.24 |
| 484 | 440 | 15 | 815 | 4.16 | 1.25 |
| 522 | 40 | 0 | 343 | 1.43 | 1.11 |
| 531 | 506 | 0 | 1311 | 1.71 | 1.23 |
| 543 | 0 | 0 | 153 | 1.00 | 0.91 |
| 562 | 236 | 46 | 397 | 2.47 | 1.17 |
| 563 | 102 | 10 | 140 | 3.68 | 1.03 |
| 574 | 0 | 51 | 780 | 1.32 | 1.16 |
| 575 | 0 | 0 | 54 | 1.00 | 1.38 |
| 583 | 0 | 0 | 174 | 1.60 | 1.31 |
| 602 | 0 | 0 | 108 | 1.00 | 1.20 |
| 613 | 410 | 0 | 795 | 4.70 | 1.86 |
| 624 | 0 | 0 | 175 | 1.32 | 1.43 |
| 635 | 40 | 100 | 600 | 1.60 | 1.46 |
| 651 | 51 | 0 | 119 | 1.75 | 1.99 |
| 652 | 200 | 50 | 390 | 2.00 | 1.36 |
| 653 | 175 | 0 | 381 | 1.82 | 2.87 |
| 664 | 58 | 0 | 374 | 1.32 | 1.55 |
| 671 | 73 | 60 | 729 | 1.16 | 1.01 |
| 672 | 763 | 0 | 763 | 19.07 | 2.73 |
| 683 | 58 | 22 | 192 | 1.43 | 1.31 |
| 711 | 50 | 0 | 99 | 2.02 | 1.16 |
| 714 | 160 | 0 | 358 | 1.78 | 1.22 |
| 731 | 265 | 0 | 587 | 1.82 | 1.00 |
| 743 | 0 | 0 | 592 | 1.44 | 1.00 |
| 744 | 365 | 73 | 2346 | 1.81 | 1.04 |
| 761 | 277 | 136 | 413 | 3.01 | 1.14 |
| 772 | 0 | 0 | 542 | 1.00 | 1.00 |
| 774 | 0 | 0 | 325 | 1.00 | 1.03 |
| 783 | 102 | 0 | 558 | 1.89 | 1.22 |
| 802 | 0 | 44 | 679 | 3.52 | 1.31 |
| 813 | 0 | 0 | 297 | 4.64 | 2.00 |
| 823 | 0 | 0 | 240 | 1.00 | 1.17 |
| 831 | 137 | 0 | 436 | 2.20 | 1.77 |
| 863 | 330 | 200 | 800 | 3.46 | 1.07 |
| 864 | 0 | 0 | 126 | 1.00 | 1.80 |
| 872 | 250 | 60 | 250 | 0.44 | 1.00 |
| 891 | 0 | 0 | 35 | 1.00 | 4.94 |
| 903 | 0 | 0 | 208 | 1.00 | 1.00 |
| 904 | 0 | 0 | 130 | 1.00 | 1.00 |
| 921 | 390 | 24 | 612 | 2.47 | 1.01 |
| 951 | 0 | 0 | 229 | 1.33 | 1.41 |
| 952 | 90 | 0 | 96 | 1.28 | 1.00 |
| 953 | 222 | 0 | 686 | 2.36 | 1.02 |
| 954 | 284 | 0 | 284 | 1.80 | 1.24 |
| 962 | 0 | 0 | 307 | 4.15 | 6.25 |
| 973 | 0 | 30 | 229 | 1.68 | 1.24 |

SCHOOLS FOR WHICH
VALUES ARE UNDEFINED

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TABLE J.51

THE 1983 LOOK AHEAD

OPTOMETRY

| | ADDITIONAL NASF TO BE BUILT BY 1983 (000) (1) | ADDITIONAL NASF TO BE REMODELED BY 1983 (000) (2) | INVENTORY OF CONTROLLED NONCLINI- CAL SPACE (000) (3) | RATIO OF 1983 INVENTORY TO 1973 INVENTORY (4) | RATIO OF 1983 HEADCOUNT TO 1973 HEADCOUNT (5) |
|-------------------|--|--|---|--|--|
| TOTAL | 253 | 40 | 743 | 1.98 | 1.39 |
| NUMBER OF SCHOOLS | 10 | 10 | 10 | 10 | 10 |
| MEAN | 25 | 4 | 74 | 2.58 | 1.80 |
| HIGH | 96 | 25 | 106 | 5.40 | 5.13 |
| LOW | 0 | 0 | 52 | 1.00 | 1.06 |
| 065 | 0 | 0 | 54 | 1.00 | 1.06 |
| 072 | 0 | 0 | 71 | 1.00 | 1.12 |
| 101 | 30 | 0 | 81 | 5.40 | 2.18 |
| 211 | 6 | 0 | 67 | 1.26 | 1.57 |
| 235 | 96 | 0 | 96 | 4.17 | 1.92 |
| 281 | 30 | 14 | 52 | 2.26 | 1.27 |
| 334 | 0 | 25 | 55 | 1.72 | 1.17 |
| 634 | 0 | 0 | 106 | 1.80 | 1.27 |
| 892 | 91 | 0 | 91 | 3.25 | 1.35 |
| 933 | 0 | 1 | 70 | 3.89 | 5.13 |

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TABLE J.52

THE 1983 LOOK AHEAD

OSTEOPATHY

| | ADDITIONAL NASF TO BE BUILT BY 1983 (000) (1) | ADDITIONAL NASF TO BE REMODELED BY 1983 (000) (2) | INVENTORY OF CONTROLLED NONCLINI- CAL SPACE (000) (3) | RATIO OF 1983 INVENTORY TO 1973 INVENTORY (4) | RATIO OF 1983 HEADCOUNT TO 1973 HEADCOUNT (5) |
|-------------------|--|--|---|--|--|
| TOTAL | 260 | 69 | 1475 | 2.58 | 1.61 |
| NUMBER OF SCHOOLS | 5 | 5 | 5 | 5 | 5 |
| MEAN | 52 | 14 | 295 | 3.74 | 1.65 |
| HIGH | 100 | 30 | 620 | 12.65 | 2.25 |
| LOW | 0 | 0 | 41 | 1.00 | 1.01 |
| 033 | 0 | 0 | 41 | 1.00 | 2.00 |
| 062 | 0 | 9 | 333 | 1.73 | 1.37 |
| 293 | 100 | 0 | 620 | 12.65 | 1.64 |
| 303 | 80 | 30 | 276 | 1.69 | 1.01 |
| 402 | 80 | 30 | 205 | 1.64 | 2.25 |

TABLE J.53

THE 1983 LOOK AHEAD

PHARMACY

| | ADDITIONAL NASF TO BE BUILT BY 1983 (000) (1) | ADDITIONAL NASF TO BE REMODELED BY 1983 (000) (2) | INVENTORY OF NONCLINI- CAL SPACE (000) (3) | RATIO OF 1983 INVENTORY TO 1973 INVENTORY (4) | RATIO OF 1983 HEADCOUNT TO 1973 HEADCOUNT (5) |
|----------------------------|--|--|---|--|--|
| TOTAL NUMBER OF SCHOOLS | 879 | 168 | 3208 | 1.40 | 1.27 |
| MEAN | 64 | 64 | 64 | 64 | 64 |
| HIGH | 14 | 3 | 50 | 1.70 | 1.29 |
| LOW | 91 | 48 | 166 | 10.67 | 2.75 |
| | 0 | 0 | 10 | 0.96 | 0.47 |
| 009 | 0 | 0 | 14 | 1.00 | 1.13 |
| 011 | 0 | 18 | 73 | 2.81 | 1.67 |
| 041 | 0 | 0 | 28 | 1.12 | 1.49 |
| 052 | 12 | 3 | 38 | 1.41 | 1.27 |
| 105 | 0 | 0 | 36 | 1.16 | 1.41 |
| 143 | 0 | 0 | 36 | 0.97 | 1.23 |
| 144 | 0 | 6 | 55 | 1.02 | 1.03 |
| 151 | 40 | 0 | 40 | 2.35 | 0.96 |
| 181 | 54 | 0 | 66 | 4.40 | 1.76 |
| 195 | 0 | 0 | 20 | 1.00 | 1.84 |
| 204 | 0 | 0 | 33 | 1.00 | 1.10 |
| 213 | 87 | 0 | 87 | 2.49 | 1.49 |
| 245 | 75 | 0 | 75 | 2.78 | 1.53 |
| 262 | 19 | 5 | 134 | 1.17 | 1.39 |
| 263 | 30 | 0 | 82 | 1.58 | 1.07 |
| 265 | 13 | 0 | 47 | 1.38 | 1.00 |
| 294 | 0 | 0 | 29 | 1.00 | 1.09 |
| 313 | 0 | 0 | 38 | 1.00 | 1.03 |
| 344 | 0 | 0 | 56 | 1.00 | 1.32 |
| 375 | 0 | 0 | 39 | 1.00 | 1.20 |
| 382 | 0 | 0 | 87 | 1.00 | 1.07 |
| 384 | 0 | 48 | 66 | 3.47 | 0.47 |
| 403 | 0 | 0 | 20 | 1.00 | 1.16 |
| 404 | 0 | 0 | 19 | 1.00 | 1.38 |
| 422 | 9 | 0 | 18 | 1.80 | 1.22 |
| 453 | 0 | 0 | 10 | 1.00 | 1.15 |
| 454 | 48 | 0 | 60 | 3.33 | 2.20 |
| 461 | 0 | 0 | 69 | 1.00 | 1.00 |
| 465 | 67 | 0 | 67 | 2.23 | 1.60 |
| 482 | 42 | 0 | 97 | 1.76 | 1.31 |
| 493 | 0 | 0 | 32 | 10.67 | 1.42 |
| 511 | 0 | 0 | 50 | 2.00 | 1.35 |
| 514 | 0 | 0 | 26 | 1.00 | 1.00 |
| 523 | 22 | 18 | 40 | 2.35 | 1.11 |
| 532 | 30 | 2 | 64 | 1.64 | 1.19 |
| 535 | 22 | 21 | 43 | 1.95 | 1.30 |
| 571 | 7 | 2 | 40 | 3.64 | 1.00 |
| 572 | 0 | 0 | 40 | 1.00 | 1.16 |
| 585 | 0 | 0 | 23 | 1.00 | 1.09 |
| 594 | 0 | 0 | 23 | 1.00 | 1.31 |
| 621 | 3 | 11 | 43 | 1.07 | 1.19 |
| 645 | 60 | 0 | 60 | 1.00 | 0.98 |
| 663 | 0 | 0 | 39 | 1.00 | 1.18 |
| 665 | 0 | 0 | 29 | 1.00 | 1.24 |

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TABLE J.53 (Continued)

THE 1983 LOOK AHEAD

PHARMACY

(CONTINUED)

| | ADDITIONAL NASF TO BE BUILT BY 1983 (000) (1) | ADDITIONAL NASF TO BE REMODELED BY 1983 (000) (2) | INVENTORY OF NONCLINI- CAL SPACE (000) (3) | RATIO OF 1983 INVENTORY TO 1973 INVENTORY (4) | RATIO OF 1983 HEADCOUNT TO 1973 HEADCOUNT (5) |
|-----|--|--|---|--|--|
| 684 | 28 | 0 | 166 | 1.09 | 1.02 |
| 692 | 0 | 0 | 74 | 1.00 | 1.16 |
| 693 | 0 | 0 | 27 | 2.70 | 1.67 |
| 703 | 0 | 0 | 43 | 1.00 | 1.69 |
| 724 | 0 | 25 | 95 | 3.28 | 1.58 |
| 742 | 0 | 0 | 27 | 1.00 | 1.71 |
| 753 | 0 | 0 | 40 | 1.00 | 1.00 |
| 801 | 0 | 0 | 40 | 1.00 | 1.63 |
| 812 | 91 | 0 | 99 | 2.30 | 1.38 |
| 824 | 0 | 0 | 50 | 1.52 | 1.07 |
| 841 | 0 | 0 | 35 | 1.30 | 0.94 |
| 874 | 12 | 0 | 34 | 1.55 | 1.00 |
| 883 | 0 | 0 | 17 | 1.13 | 1.23 |
| 902 | 78 | 0 | 78 | 0.96 | 2.75 |
| 922 | 0 | 0 | 22 | 1.00 | 1.21 |
| 923 | 0 | 0 | 86 | 2.15 | 1.67 |
| 971 | 0 | 0 | 30 | 1.00 | 1.34 |
| 982 | 0 | 0 | 38 | 1.00 | 1.19 |
| 984 | 0 | 9 | 32 | 2.00 | 1.77 |
| 991 | 30 | 0 | 84 | 1.56 | 1.06 |

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TABLE J.54

THE 1983 LOOK AHEAD

PODIATRY

| | ADDITIONAL NASF TO BE BUILT BY 1983 (000) (1) | ADDITIONAL NASF TO BE REMODELED BY 1983 (000) (2) | INVENTORY OF NONCLINICAL SPACE (000) (3) | RATIO OF 1983 INVENTORY TO 1973 INVENTORY (4) | RATIO OF 1983 HEADCOUNT TO 1973 HEADCOUNT (5) |
|-------------------|--|--|---|--|--|
| TOTAL | 205 | 155 | 516 | 3.69 | 1.46 |
| NUMBER OF SCHOOLS | 5 | 5 | 5 | 5 | 5 |
| MEAN | 41 | 31 | 103 | 4.61 | 1.52 |
| HIGH | 105 | 82 | 194 | 8.36 | 1.97 |
| LOW | 0 | 0 | 15 | 1.00 | 1.13 |
| 082 | 0 | 50 | 108 | 1.61 | 1.30 |
| 191 | 105 | 23 | 117 | 8.36 | 1.13 |
| 264 | 0 | 82 | 82 | 4.32 | 1.38 |
| 644 | 100 | 0 | 194 | 7.76 | 1.97 |
| 833 | 0 | 0 | 15 | 1.00 | 1.82 |

TABLE J.55

THE 1983 LOOK AHEAD

PUBLIC HEALTH

| | ADDITIONAL NASF TO BE BUILT BY 1983 (000) (1) | ADDITIONAL NASF TO BE REMODELED BY 1983 (000) (2) | INVENTORY OF NONCLINI- CAL SPACE (000) (3) | RATIO OF 1983 INVENTORY TO 1973 (4) | RATIO OF 1983 HEADCOUNT TO 1973 (5) |
|-------------------|--|--|---|---|---|
| TOTAL | 337 | 614 | 1159 | 1.15 | 1.45 |
| NUMBER OF SCHOOLS | 13 | 13 | 13 | 13 | 13 |
| MEAN | 26 | 47 | 89 | 1.50 | 1.62 |
| HIGH | 134 | 511 | 212 | 6.00 | 6.76 |
| LOW | 0 | 0 | 31 | 0.91 | 0.88 |
| 032 | 0 | 0 | 31 | 1.00 | 1.44 |
| 154 | 87 | 0 | 177 | 1.88 | 1.28 |
| 223 | 15 | 0 | 85 | 1.77 | 1.04 |
| 251 | 0 | 0 | 38 | 1.00 | 1.17 |
| 272 | 56 | 0 | 60 | 6.00 | 6.76 |
| 291 | 45 | 26 | 75 | 0.91 | 2.98 |
| 381 | 0 | 511 | 65 | 1.00 | 1.35 |
| 494 | 0 | 0 | 35 | 1.00 | 1.79 |
| 681 | 0 | 0 | 48 | 1.00 | 1.00 |
| 762 | 134 | 77 | 212 | 0.94 | 1.38 |
| 763 | 0 | 0 | 53 | 1.00 | 1.55 |
| 834 | 0 | 0 | 106 | 1.00 | 1.04 |
| 882 | 0 | 0 | 174 | 1.00 | 0.88 |

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TABLE J.56

THE 1983 LOOK AHEAD

VETERINARY MEDICINE

| | ADDITIONAL NASF TO BE BUILT BY 1983 (000) (1) | ADDITIONAL NASF TO BE REMODELED BY 1983 (000) (2) | INVENTORY OF NONCLINICAL SPACE (300) (3) | RATIO OF 1983 INVENTORY TO 1973 INVENTORY (4) | RATIO OF 1983 HEADCOUNT TO 1973 HEADCOUNT (5) |
|---|--|--|---|--|--|
| TOTAL NUMBER OF SCHOOLS | 1982 | 126 | 4855 | 1.96 | 1.47 |
| MEAN | 19 | 19 | 19 | 18 | 18 |
| HIGH | 104 | 7 | 256 | 3.38 | 1.94 |
| LOW | 320 | 34 | 578 | 30.00 | 10.56 |
| | 0 | 0 | 31 | 1.00 | 1.00 |
| 002 | 320 | 20 | 510 | 2.39 | 1.41 |
| 021 | 40 | 8 | 167 | 1.31 | 1.23 |
| 043 | 0 | 0 | 31 | 1.00 | 1.09 |
| 061 | 20 | 3 | 60 | 1.50 | 2.03 |
| 165 | 235 | 0 | 307 | 1.82 | 1.49 |
| 243 | 100 | 24 | 305 | 1.89 | 1.81 |
| 292 | 114 | 0 | 306 | 1.78 | 1.85 |
| 321 | 240 | 16 | 356 | 3.07 | 1.48 |
| 354 | 127 | 0 | 351 | 1.57 | 1.45 |
| 363 | 101 | 0 | 150 | 1.79 | 1.20 |
| 392 | 0 | 11 | 132 | 1.86 | 1.47 |
| 424 | 16 | 3 | 121 | 1.22 | 1.29 |
| 442 | 73 | 34 | 249 | 2.09 | 1.52 |
| 502 | 150 | 0 | 237 | 2.96 | 1.18 |
| 545 | 63 | 7 | 250 | 1.59 | 1.00 |
| 551 | 245 | 0 | 578 | 2.06 | 1.57 |
| 622 | 0 | 0 | 360 | 30.00 | 10.56 |
| 784 | 0 | 0 | 247 | 1.00 | 1.20 |
| 851 | 138 | 0 | 138 | | |
| SCHOOLS FOR WHICH VALUES ARE UNDEFINED | | | | 851 | 851 |

FOOTNOTES
THE 1983 LOOK AHEAD

1. This figure includes only those facilities reported in the context of "nonclinical instruction facilities".
2. Same note as for column 1.
3. The figure displayed includes "on-site patient care" and "other" facilities due to design limitations in the survey instrument.
4. The NASF figure used to represent the 1973 inventory includes, for purposes of comparability with the 1983 figures, "on-site patient care" and "other" facilities.
5. For respondents who left column E, page 10 of the survey form blank (1983 headcount), we have substituted the headcount reported in column C ("post-construction" headcount).