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ABSTRACT

If we are to reduce wastage in higher education, we must first understand, and then combat some practices found in educational institutions. Specifically, we must discourage: over-staffing, power politics, and statistical juggling. Each institution of higher learning, each community, each state, should examine objectively the possibilities of effecting economies in higher education in at least the following categories: general minor savings resulting from centralized purchasing, secretarial pooling, turning off lights and heat; elimination of duplicate courses; elimination of small classes; reduction of bureaucratic administrative costs and building costs; improvement of scholarship aid; facilities extension for more per-day operations; increase in teaching load; control of size and relevancy of enrollments, and greater emphasis on productivity in higher education. The costs of higher education can be reduced, but only through the combined efforts of the professional, the taxpayer, and the legislator. (Author/PG)

STRETCHING YOUR TAX DOLLAR IN HIGHER EDUCATION

by Hugh B. Wood
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The cost of higher education could be reduced by 25% within two years, by 35 to 45% within five years - all without injury to the quality of instruction or learning. Ridiculous, you say? Not at all! If anything, conservative on the amount of savings, and perhaps too hopeful on the time required.

Never before have so many American taxpayers been so conscious of, and rebellious toward, the incrasing costs of government services. Unlike some other services (for example, the common schools), higher education is not universally used, or accepted as essential for all. This factor, widespread campus unrest, soaring costs, and considerable vaguery about institutions of higher learning, have combined to focus specific attacks by the taxpayer and the legislator on the costs of higher education. These attacks, in turn, have often been met by defensive and protective members of the academic profession.

For many years I have engaged in objective search for reasonable economies in education - as a taxpayer, as a university professor, and as a specialist in the economics of education. I think I have found some; I pass them on to you, the reader, for your thoughtful consideration. Some of my academic colleagues disagree strongly with some of my proposals; some cry "heresy." Nevertheless, I believe the time has come to "speak out" from the "inner circle," and let the layman share in the facts and in the decisions that must be made very soon regarding the future of higher education.

Many of my comments apply to higher education in general, both public and private, both in our state and out; some apply to a specific institution. My examples are all true; if I fail to identify them with an institution or a person, it is to avoid unnecessary embarrassment, because I know the examples could be multiplied many times over in other colleges and universities throughout the United States.

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To begin, I want to clear away some brush by disposing of several "myths" which have clouded some of the basic issues for more than a decade.

Myth 1. Money coming from the federal government is "free for the asking" and reduces local costs.

In the last decade, the federal government has poured millions of dollars into higher education at the local level. Regardless of the merits (or lack of merits) of these grants, this money is not "free." First of all, you and I, as taxpayers, pay a substantial portion of it into the U. S. treasury.

Second, studies show that it costs more to collect and administer taxes on the national level than at the state or local level, so this introduces a certain amount of inefficiency and waste.

Third, we abdicate most of the allocation and administrative control of these funds; and the projects for which these grants are made may or may not be relevant to our needs at the local institutional level.

Fourth, these grants often require some "matching" funds from the institution's already limited budget; if the project is not essential to good instruction, the acceptance of the grant can be compared to the purchase of some household item, for which we have no earthly use, at 50% savings.

Fifth, federal project money rarely covers all administrative and overhead costs and usually requires additional space. Although the institution may receive $100,000 of federal money for an investment of, say, $10,000 to $20,000, this is poor economics if the instructional program does not benefit.

Finally, federal grants contribute to dangerous and uneconomical "over-tooling." For example, one division of a certain university with a staff of 150 and building facilities to accommodate them, is operating on a budget of 75% grant money. If the grants are suddenly terminated, we can fire 75% of the staff (although sometimes some employees on "grant" money have been promised transfer to the regular staff), but what about the 75% of the building facilities now released?

The federal government offers grants for specific projects; some institutions are tempted to seek this money whether the projects fit the institution's overall program or not. A much better utilization of these funds would result if (a) equivalent funds were collected at the state level and distributed to the institutions, or (b) the federal money were distributed un-earmarked so that the institution could use the funds for its real and most important needs.

Myth 2. Tax-supported colleges and universities have an obligation to admit all high school graduates. In general, community colleges admit all applicants, whether they have graduated from high school or not. State colleges and universities usually admit all high school graduates (in some states a legal requirement), or at least those with a "C" average. Small private colleges frequently need the tuition income and thus admit all high school graduates who can pay the costs. Usually only large, private, prestigious institutions can practice selective admission. However, this "total freedom of admission" concept in the liberal arts colleges and universities leads to chaos and social and economic wasteage.

Common sense and economic efficiency demand some minimum admission criteria!

(a) The student should have a well-defined and socially and/or economically acceptable purpose or goal to pursue, and a will to do so,

(b) He should have the prerequisite competencies - skills, attitudes, etc.- and the maturity necessary to pursue the appropriate learning program at the level offered by the institution,

(c) There should be reasonable evidence that the student (and hopefully society) will benefit from his learning experience, and

(d) The institution should be prepared to offer the program <u>needed</u> by the student.

Application of these criteria should, in theory, eliminate the college drop-out problem; in practice, reduce it to a minimum. (College drop-outs now cost the institution a minimum of about $1,500 - $2,000 each, plus a similar amount if he drops out in the second year rather than the first. College drop-outs cost the individual and society over $200,000 cash in lost life-time earnings and related costs.)

These criteria would also help control enrollments. They would certainly be an improvement on the present "quota" system now being used in some institutions (for example, Oregon universities). The quota system establishes a maximum enrollment figure; the institution "tools up" for this number of students: hires instructors, provides facilities, and budgets the tuition income accordingly. The admissions officer knows from experience that there will be some "no-shows," so he "admits" a few more than the quota (but of necessity he must be conservative). Thus, the final enrollment falls short of the quota ("stand-bys" are impractical since no student wants to "take his chances"), the budget is short the tuition, and the institution is "over-tooled," resulting in economic waste.

Myth 3. <u>Education is a "consumer" item; therefore, we have no concern for the investment/productivity ratio factor</u>. Traditionally, we have thought of education as something to purchase for consumption; much as we buy food and clothes to satisfy the body, we buy education to satisfy the mind. Only in recent years have we realized that much of education is an investment and brings economic returns to the student, who uses his learning partly to earn an income.

Thus, unlike a business enterprise, we have given too little attention to the nature and quality of the material (students) we work with, to the competency of the worker (instructor), to the efficiency of the operational process, and to the actual <u>need</u> for the kind of product we turn out. In short, we have not applied even the simplest business efficiency principles (without which private enterprise would collapse) to the business of education. Market studies, cost analysis, efficiency investigations - these are virtually unheard of in education. No one really knows the cost of achieving academic goals with varying methods, materials, programs.

Furthermore, competition (which might help to keep costs down) is also missing, within and among institutions. Have you ever heard anyone say, "It costs us 'x' dollars to bring 100 students to the point that they can average 90% on the "abc" test in Hist 101, but it costs "y" institution twice that much"? Frankly, this kind of information is not known.

Finally, the educational system is not geared to efficiency. The college president never receives a bonus for his or his institution's efficiency. Deans pride themselves on the size of their staffs, not on how few they can operate with. Most institutions take pride in size of enrollment; there are few inducements to apply the admission criteria mentioned above.

Education, if it is to survive at its present level, must adopt (and adapt) business-like methods and procedures. Colleges must demand materials (students) amenable to the educational process, they must provide competent workers (instructors), and offer meaningful programs; to this mix, then, must be applied scientific supervision that will guarantee an efficient operation.

* * *

Also, before discussing specific savings that could be effected in higher education, we must look at some of the "games" professionals play so that we can identify the difficulties of effecting economies, the roadblocks thrown up by the college personnel to prevent the changes necessary for the savings to be achieved.

1. The most insidious game is that of "Empire Building." Many administrators - presidents, deans, department heads - take pride in, measure personal success by, and therefore constantly strive for, an increasing staff. One dean of my acquaintance twenty-five years ago took over a small division of eight staff members; today this division has the status of a college within a university, several departments, and 160 staff members. Does this division now teach 20 times more courses, have 20 times more students, provide 20 times as much service? No! It teaches 10 times more courses to 4 times as many students!

   By constant pressure for new programs, more staff, more services, by reducing the number of courses taught by each instructor; by encouraging the establishment of new committees, new administrative tasks that can be assigned to staff members, consulting services, and other related but frequently extraneous tasks; and by seeking (and obtaining) projects under "grant" money, this dean was able to build quite an empire for himself. And this is not an isolated case; it is rather common.

   Obviously, some growth during this period was inevitable, but not in this ratio. The dean, of course, had the backing of his boss, his colleagues, and the new staff members he hired, because everyone gained in prestige (or so they thought!)

   Although this game is also played in business, it can't succeed unless growth is truly justified by results. In higher education, in the absence of efficiency controls, this game is played vigorously, and those who interfere are likely to suffer.

2. Another game frequently played by administrators, and "would-be" administrators, is "Grantmanship." This is the process of learning about available grant money, preparing (or having prepared) a "proposal," contacting persons who can help to get the grant assigned to you or your institution, and directing the project after the grant is made. More than one administrator keeps a "scorecard" on his desk to record grants "at bat" (applied for), "hits" (received), "home runs" (large grants), and "walks" (grants awarded without much, if any, effort).

   The "soft" money (so called because of its temporary nature) is often spent for new, experimental projects, frequently without firm goals, and sometimes of little relevance to the teaching process. Grants rarely fit into a broad, pre-designed institutional program; usually they are accepted on the basis of, "We'll take what we can get and hope that it fits in." As indicated above, they frequently drain off some funds, staff, and facilities from the regular program, and result in "over-tooling."

   But this is an important "game," widely played. It is difficult to attack: who wants to turn down money? Look at the prestige this grant brings(to self and institution)! Shouldn't we be involved in a national program? In spite of these claims, this game contributes to "Empire Building" and is often economically wasteful.

3. A third game played almost universally on campus is Power Politics. In this game certain instructors and administrators attempt to garner the "power structure" - leadership of significant committees, obligations from key administrators, control of colleagues' votes, "king-maker" roles, etc. If I can get a colleague elected to the committee on tenure and promotion, then I can expect favorable treatment when my own case comes up, or my friend's. If the dean can persuade his staff to vote for his candidate for the university senate, presumably his department will fare better when budgets, new programs, and other matters are considered.

   At the division level, the "yes" man usually fares better than the maverick, the "good politician" better than the indifferent or independent instructor. One such maverick of my acquaintance was told twenty years ago to "shape up," vote as he was told, not criticize the dean's programs, and make friends and alliances with key personnel. He didn't; he has not had a merit raise since, which of course appears to be a savings to the institution, but since he was on tenure, he was "shelved" - transferred to another department, given very little to do, generally ignored, and encouraged to go to another institution. Incidentally, another man was hired to fill his original assignment and he never did leave.

   Obviously, "Power Politics" causes many decisions to be made on a personal basis - support for a program on a friendship basis, or the opposite - rather than on the basis of its merits, or lack of them. This certainly does not contribute to economic efficiency.

4. A fourth game that the professionals play is "Statistics Juggling." This is the simple process of deciding what you want to prove and then

finding, or developing, the statistics to prove it; and in the process, avoiding any statistics that may disprove what you want proven.

There is an old adage that says, "Statistics don't lie, but liars use statistics." Let's see how it works: You want to prove that the cost of instruction in your division is low. You find that the "per student credit hour" of instruction in your department costs $15.50, which is $3.00 more than the university average. Well, we're a professional school so we'll compare with the average of the professional schools. Oops! We are still $1.00 higher. But we're a special profession, so we'll look at this cost in other institutions. It is usually not too hard to find eight or ten other colleges - private or in wealthier states - where the cost is above $15.00, so we average them, find a figure of $17.50, and, lo and behold, we are cheaper!

Although many institutions place a halo around this cost factor, it really is not too meaningful because it ignores the quality of output (also, input). For example, at the Tongue Point Job Corps Center, we found that by doubling the cost of instruction in remedial reading (cutting student teacher load in half), we could triple the speed of improvement.

Unfortunately for the taxpayer, it takes an expert to challenge statistics, and the wisdom of Solomon and the patience of Job to combat these other games that the professionals play. If Higher Education won't straighten out its own house, then the taxpayer and the legislator must fall back on their power to reduce appropriations.

* * *

Within the above frame of reference, let us now turn to specific economies that could be made in higher education to reduce over-all costs by 25% to 45%, as I suggested in the beginning. I have divided these into three general categories: (a) relatively minor economies that could be achieved almost immediately, say within two years (Nos. 1-6), (b) major economies that could be achieved almost immediately, say within two years (Nos. 7-9), and (c) major economies that would require as much as five years or more to realize (Nos. 10-12). I have discussed them more or less in this order.

I should point out that (a) this is not an all-inclusive list, (b) some of these economies have already been made by some institutions, and (c) some readers will object to some economies that challenge our laisser-faire American philosophy of education.

1. "Skimming off the fluff." (2%-12%) This is a generalized savings which may include part or all of several savings which follow. It is the result of generally "tightening the belt": cutting down on duplicating materials for students (let them pay for it), secretarial "pooling" to distribute the load and reduce staff, eliminating free parking, etc. It is the kind of savings that results when an institution initiates a self-evaluation study (such as the University of Oregon has done, based on the University of Minnesota plan). Each division is asked, "What would you eliminate in your program to achieve a 4% reduction in budget?" "Another 4%?" "And still another 4%?

Beyond the first 4%, one might ask if we are still eliminating "fluff," but some divisions at the University of Oregon have suggested possible reductions of up to 12% that do not include any of the savings that I have categorized below as "major." For example, in most institutions, few would suggest reduction of staff in this category (reduce the Empire? No!)

Nevertheless, it is probably possible in most educational institutions to find some general "fluff," which before it got into the budget was not missed and has not improved the instructional program very much.

2. Elimination of duplicate courses. (1%-3%) Nearly all colleges and universities, except very small ones, have some duplication of courses - that is, they offer the same course in two or more departments. For example, statistics is frequently offered in the school of education as well as in the mathematics department. The sociology department offers "The Sociology of Education" while the education department offers " "Educational Sociology." Many other examples could be given.

   This rather common practice results from empire building, personnel factors (e.g., one department believing it has a better teacher), need for different emphases, etc. It is not all bad, because it gives the student a wider choice, but it can be wasteful, especially if the resulting classes are smaller than necessary for effective teaching.

3. Elimination of small classes. (2%-10%) This is a difficult economy to deal with for several reasons! What is a small class? Two or three students? Yes. Twenty students? Probably, No. But the range between is difficult. Ten students can make an excellent seminar.

   Furthermore, at the graduate level particularly, interests become highly specific and the need for highly specialized content makes for small classes.

   Some institutions have decreed (as an economy measure) no classes will be offered to less than ten students. I would not recommend an arbitrary rule, but in calculating "teacher load," I would not, except in unusual circumstances, give equivalent weight to small classes and large classes. I would not discourage individualized study which small groups permit, but I would check out each case - could the course be offered less often, combined with something else, a duplication be eliminated, offered on an individual basis only, etc. - and if determined to be a necessary offering, allow credit on the teaching load accordingly.

4. Reduction of bureaucratic administrative costs. (2%-10%) Most excessive costs in the administration of higher education today result from the bureaucratization of administration and empire building. "Paper work" (reports, proposals, planning, correspondence, etc.) has increased many times that required twenty or thirty years ago. Per capita consumption of paper in the United States has increased four times since 1960. This requires more typists, more persons to prepare what is typed, more clerical help for those who prepare the material, more filing cabinets to hold the carbon copies, etc. (The federal government spends several billion dollars each year just for storage of documents.) The larger the

enterprise of higher education becomes, the more we bureaucratize it; we must reverse this trend.

Also, we must examine the need for so many administrators. Should we have a department head for three staff members? Or combine the department with another? Do we need separate associate deans of instruction, finance, personnel, programing, etc., in each major division of the university? Does each division need its own business office? Once the services of these offices are established, it seems difficult to imagine operating without them, but we once did.

The ultimate criterion for administration is: "Does this support the teaching/learning process?" Unfortunately, some administration today interferes with, or is irrelevant to, the instructional process, which is the basic goal of higher education.

5. Declaration of a moratorium on "expensive" buildings. (1-10%) Buildings should be functional, both for efficiency and economy. Some institutions have done well on this score; others have displayed unnecessary extravagance, especially when partially or wholely utilizing federal funds. For example, one new university building, recently federally funded 90%, has 43 "breaks" (angles, corners, etc.) in its roof, is made of brick veneer on concrete, and cost double the rate for simpler, more functional buildings.

   Often additional space is not really necessary. We can get more service out of the existing facilities (see No. 7 below), and we can do with less office space (see No. 9 below).

6. Placing scholarship aid on economic need and product-value basis. (2-5%) At the present time scholarship aid is relatively extensive and often available on doubtful criteria. Sometimes the aid is offered in subjects where there is a real shortage of graduates (e.g., engineering, medicine, nursing), sometimes "across the board" to anyone regardless of economic need. A colleague of mine, in 1970, sought a recipient for a graduate scholarship which had just become available. He found that every graduate student in his department already had a scholarship! I doubt that all of these students were in dire financial need. Another example: one state institution of my knowledge used to give a scholarship to every foreign student. Granted that we should encourage a cosmopolitan atmosphere on campus, should taxpayers have to carry this kind of load?

   I believe in scholarship aid, and am willing to help support it, but under these conditions:

   a. The student has true economic need.

   b. He is helping himself (through parents' help, part-time job, loans, etc.)

   c. He is capable of learning what we have to offer.

   d. Both he and society will benefit from his education.

e. Work, when required of scholarship students, should be truly useful work, relevant and contributary to his training when possible.

If these criteria were applied, scholarship aid could be reduced considerably. Perhaps some of this money should be shifted to loan funds. In any event, I would not charge scholarship aid, per se, against instructional costs; I would treat it as a separate "service item" to be approved or disapproved apart from the cost of teaching.

7. Extension of use of facilities. (5%-25%) Only a government enterprise could afford to use its physical plant only one-fifth of the time (based on a 40-hour week and 44-week year). However, most state institutions have been forced into a more complete use of their plants and facilities. For example, many hold evening classes, some have added one or two more periods per day by running from 7:30 to 5:30 rather than 8:00-12:00 and 1:00-5:00 as formerly (thus gaining the equivalent of 12½% to 25% more classroom space). Less successful has been the attempt to get students and staff to adopt a Tuesday-Thursday-Saturday schedule of classes as readily as they did a Monday-Wednesday-Friday schedule. And the tri-mester and four-quarter plans, utilizing the full twelve months, have not spread very rapidly.

Many colleges have extended their library and laboratory hours for students' use. Many have increased use of their facilities by opening them to the public. Those which are not now getting maximum use should declare building moratoriums until they really need them.

8. Separation of "instruction-related" and "pure" research. (10%-40%) This is a difficult economy to discuss. According to some estimates, as much as 40% of the research in some universities is only remotely related to, or contributory to the improvement of, classroom instruction. And yet, it rides "piggy-back" - or at least partly - on instructional costs.

Good instruction requires the preparation of bibliographies, perhaps a syllabus, lectures, projects, etc., related to the classroom activities. It requires continuous "keeping up to date" in one's field. Even the preparation of a textbook, or field consultation keeps the instructor alive and on his toes. But much of the research in higher education today is probing into the beyond, working at a level far above student comprehension, creating new knowledge - not closely related to the teaching process in the classroom. I am not condemning this "pure" research - of course, it's needed - but it should not be charged against instruction, which is the main function of the college. It should stand or fall on its own merits before the taxpayer as a separate budget item. Under present arrangements in most institutions, much of this research time is shown as part of the normal load of the instructor.

It would require considerable effort to establish fool-proof criteria for separating research into "instructionally relevant" and "instructionally non-relevant," but it could be done. If an instructor wants to limit his research to the former, fine; if he wants to devote part or all of his time to the latter, then let an appropriate amount of his salary be charged to a "research fund," separate from instructional costs and the over-all costs of higher education.

9. Increase of the teaching load. (10%-25%) The teaching load (that is, the number of hours spent in the classrooms) varies from six to fifteen hours per week according to whether the institution is a university, a liberal arts college, or a community college (the latter representing the heavier load.) It must be pointed out that college teaching requires more "support" time - preparation, keeping up to date in one's field, etc. - than high school teaching, but do six hours in the classroom require 34 supportive hours (assuming a 40-hour week)? And does university teaching require two-and-one-half times more supportive time than some other college teaching?

Teaching load is a touchy subject among academicians. One writer in the Bulletin (December 1971, p. 501) of the American Association of University Professors says,

> When budget cuts have to be made, they are hidden as long as possible in instructions to deans and department chairmen and in the decline of campus maintenance, maid service for students, or purchases for libraries and laboratories . . . . .If cost cutting must go further to include increased teaching loads, presidents and deans are not unlikely to resort to schedule manipulation and minor trickery rather than face this touchy issue directly.

This problem is complicated by the "games" of Empire Building (low teaching loads result in larger faculties)- and Power Politics (don't challenge the teaching load in my area and I won't challenge yours). A professor who would like to teach more than six hours is discouraged from doing so because it would make his colleagues look bad.

The problem also is related to some of the other areas of savings: class size affects teaching load, the increase in administrative tasks encourages the distribution of some of these to teachers and provides "cause" for low teaching loads, and some teachers enjoy hiding in the romance (?) of non-teaching-related research.

Most institutions establish what is called an "instructional load," say of 12 or 14 hours (per week) at the university level. A common practice is for each professor to begin planning his week's work by subtracting "load credit" for his non-teaching responsibilities: one hour for each 25-35 students he advises (usually only some of them once or twice a term), one hour for each candidate working on a thesis or dissertation (regardless of actual advising time involved), one hour for serving as the chairman of some institutional committee or serving on the faculty senate, one hour (or more) for directing a grant program, one hour for serving as president of Rotary (community service), etc. The remaining time, now whittled to six hours (by continuing the whittling until it is down to six hours) is assigned to teaching.

I submit that the primary function of the professor is to teach. It would be more appropriate to begin planning by assigning the first nine or more hours to teaching, and then assigning time to the other activities, many of which are essential and very important, on a priority basis. This might

require a reevaluation of these activities, elimination of some, or use of some of the supportive time for them.

Space does not permit a complete discussion of this problem, but certain facts are evident: (a) one should not assume that college teachers are lazy - in fact, studies show that they work as much as 50 to 60 hours per week - but classroom teaching needs a "first" priority; (b) many college teachers teach 12-15 hours per week; I know of no studies that show that the quality of teaching improves when those teachers teach only six hours per week. On the other hand, I know of no studies which show a decrease of quality when university professors increase their loads to 9 or more hours (through re-ordering of priorities).

By moving from a minimum six-hour load, now common in universities, to a minimum nine-hour load (allowing several years for personnel adjustments without wholesale firing), a theoretical savings of 33% could be effected. Net savings would be reduced by possible excess office space, deserving salary adjustments, the fact that some teachers are now teaching more than the minimum, etc., but we could realistically expect up to 25% savings within two to five years in some institutions.

10. Controlling relevant enrollment. (5%-25%) It is well-known that higher education enrollments are increasing each year, and at a faster rate than population growth or economic capability. If we are to move towards a philosophy of "higher education for all," it should be done on the basis of sound reasons, not willy-nilly, as at present. We should ask: (a) Should every person go to college? (b) If a person goes to college, should it be any college, or one that can offer a program relevant to his needs? (c) Can we afford to send everyone to college, even if it seems desirable?

    Some believe we are over-educating even now. Others believe we have reached a saturation point and must reverse the trend. Some would accept the admission requirements suggested earlier in this paper, which would provide control and insure relevancy, and result in an immediate reduction in enrollment and hence a savings. However, most of the savings suggested in this category would occur in the years ahead. If we are to arrest this explosive enrollment trend, we should plan now in terms of avoiding over-expansion of facilities, over-training of staff, and, equally important, modify the high school emphasis on "going to college" and provide appropriate transition or bridging opportunities from high school to the job. We should determine reasonable enrollment quotas, based on occupational, social, and political needs, and plan accordingly.

11. Utilizing the facilities of private institutions. (5%-25%) The increasing costs of higher education and decreasing philanthropic contributions to private colleges which, in turn, cause higher tuition and decreased enrollment in those institutions, are forcing their closure at the rate of 20 to 25 institutions per year. Some of these, lacking in good facilities, libraries and laboratories, well-trained staffs, etc., represent no great loss, but most of them have been, and could continue to be, first-rate institutions.

Before expanding present publicly-supported institutions (see items 5 and 7 above), and, relative to establishing future "controlled" enrollment figures (see item 10 preceding), we should consider (a) subsidizing these financially distressed private institutions with public funds, (b) taking them over completely as public institutions, or (c) some other plan that would utilize existing facilities and trained faculties before investing further funds for normal expansion.

12. Increasing the efficiency of methodology (?%) No one can guess the possible savings that could be effected by improving the teaching/learning process. Unlike in business and industry, cost analysis has rarely invaded the classroom. Many educators argue it is impractical or impossible. Obviously, it would require the establishment of very objective goals and measuring instruments; it is argued that this would destroy creativity, genius, innovation, and true freedom of thought.

Nevertheless, we don't know that we can't compare methods on a cost-analysis basis because we have never made a real, prolonged effort to do so. Common sense suggests that such data would be useful and perhaps result in more efficient methodology. It has taken business and industry nearly 100 years to develop and implement such techniques; competition provided the spur. It might take us twenty years to get a good start in education, but now is the time to initiate that start!

13. Increasing the relevancy of programs. (?%) Here, again, no one can predict the possible savings in this category, and these savings might not be realized for a generation. Earlier (see Myth 3) I pointed out that traditionally we have accepted education as a "consumer" item, without regard for its "productive" possibilities. Obviously, it costs less to send a girl to a business college for 6-12 months to become a secretary than to send her to a university for four years where she majors in secretarial science and then becomes a secretary. The economist might study the life-time earnings of the two girls to determine the relative value of the two programs. The educator might ask if the one girl is mature enough to become a good secretary three years earlier than the other, and without the supplementary general education she would obtain at the university, and whether the first girl could afford four years of training. Obviously, there are many factors to be considered besides the vocational value of an education.

However, consider the comparable values of a home economics major and a liberal arts major for the woman who intends to be a housewife. Or a program in pre-law as compared with a general program - the occupationally oriented program vs. the non-occupationally oriented program. Is not even a liberal arts program more effective if the student has made a tentative, broad occupational choice?

Again, consider the fact that nearly all universities package their programs into the same neat 180 term hours (or 120 semester hours) for each student, regardless of his interests, goals, abilities, or occupational outlook. Should not the four-year colleges and the universities recognize individual differences as community colleges do?

Programs should be designed in terms of specific modern goals, not only to incorporate traditional values. They should be as broad and as long as necessary; no more. They should be flexible for each student. They should be relevant to the needs of those for whom they are designed. This would result in programs of varying length and breadth; they would not all be four years, or 180 hours, in length.

These changes would result in greater productive values in higher education, without injury to the consumer values. They would tend to reduce enrollment because many students would finish in less than four years.

* * *

In summary, let us recognize that:

1. "Federal" money comes from our pocketbooks in much the same way that state or local money does; unwise expenditure of federal money is as senseless as of other money.

2. Liberal arts colleges and universities are not designed to meet the needs of <u>all</u> youth; to admit all youth to these institutions is wasteful, and detrimental to those who fail.

3. Education has "productive" values that have been ignored, at least not exploited, in the past. These should guide educational planning as much as traditional "consumer" values.

If we are to reduce wastage in higher education, we must first understand, and then combat, some of the practices found in some educational institutions. Specifically, we must discourage:

1. Empire building that leads to "over-tooling" and over-staffing.

2. Grantsmanship that dilutes our staffs, exploits our facilities, and depletes our funds on non-teaching-related activities.

3. Power politics that permit decisions and operations on less than sound bases.

4. Statistics juggling that becloud and distort the facts.

Each institution of higher learning, each community, each state, should examine objectively the possibilities of effecting economies in higher education in at least the following categories:

1. General minor savings resulting from "general tightening" - centralized purchasing, secretarial pooling, turning off lights and heat when not being used, etc.

2. Elimination of duplicate courses, if any (unless they have substantial enrollments).

3. Elimination of small classes, say fewer than 8-10 students, through combining, offering less frequently, tutoring and other arrangements.

4. Reducation of bureaucratic administrative costs - excess "paper" work, community activity, duplicate services, etc.

5. Reduction of building costs; buildings should be functional, well-built, and economic to maintain.

6. Improvement of scholarship aid by (a) separating it from instructional costs, (b) shifting the emphasis to loan funds, and (c) granting aid primarily on the basis of economic need.

7. Extension of the use of facilities to more hours per day, more days per week, more months per year, and to more community groups.

8. Identification and classification of research - teaching-oriented and non-teaching oriented - and removal of the latter from the instructional budget.

9. Increase of the teaching load to a minimum of nine classroom hours per week, with first priority on teaching.

10. Control of size and relevancy of enrollments, now and in the future.

11. Better utilization of the facilities of private institutions, through public subsidy plans.

12. Increase in the efficiency of methodology, through the introduction of cost analysis techniques from business and industry.

13. Increase in the relevancy of programs and greater emphasis on productivity in higher education.

The costs of higher education can be reduced, but, maximally, only through the combined efforts of the professional, the taxpayer, and the legislator. We must work together if we are to avoid economic collapse of higher education and put it on a sound, business-like basis.