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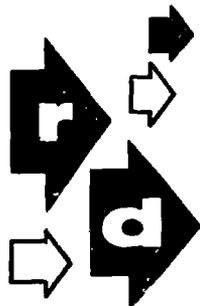
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ABSTRACT

This twenty-third annual NEA survey of public school teacher supply and demand estimates that the supply of qualified teachers is adequate. To supplement these estimates, special surveys were made in State departments of education and in the nation's 67 largest school systems to assess teacher supply and demand in various types of school systems. By late summer 1970, most States had reported shortages of applicants in some areas and excesses in others. Shortages occurred in elementary school librarians, special education, industrial arts, remedial reading, speech correction, mathematics, and women's physical and health education. As a result of the record size of the graduating class, only five States reported having a smaller number of qualified teacher applicants. Tables present comparative data by State and subject area. A related document is ED 040 918. (MLF)

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RESEARCH REPORT 1970-R14

Teacher Supply and Demand in Public Schools, 1970

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Research Report 1970-R14: *TEACHER SUPPLY AND DEMAND IN PUBLIC SCHOOLS, 1970*

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FOREWORD

THE NEA RESEARCH DIVISION constantly endeavors to improve the research techniques, the accuracy of data, the scope of information collected, and the usefulness of its reports. This 23rd annual survey of the supply and demand for public-school teachers continues this tradition.

Continuing the changes initiated in the 1966 edition, the 1970 report provides two estimates of the demand for new teachers: one based on achievement of minimum quality in educational staffing, and one based on trends toward improvement in the quality of the teaching staff. Also, the present study continues the estimation of the demand for beginning teachers as a subgroup of the demand for new teachers.

Users of this report should interpret the estimates only in general terms because additional study is needed on (a) the factors influencing personal decisions on entering, interrupting, re-entering, and leaving the teaching profession; (b) the characteristics of potential teachers and the assignments given to new teachers; and (c) the influence of rapid advances toward improvement in education upon the components of teacher supply and demand.

This report contains a summary of teacher supply and demand conditions reported in late summer 1970 by respondents in state departments of education and in the country's 67 largest school systems. These two special surveys were designed to supplement the national estimates, to identify the status of teacher supply and demand in various types of school systems, and to review the conditions influencing teacher supply and demand in late summer 1970. The results of these inquiries are given on pages six and seven of this report.

The NEA Research Division appreciates the invaluable assistance of the personnel in state departments of education and teacher preparation institutions who participated in this study. Their willingness to gather and provide basic data and their continuing interest in this important facet of professional analysis and planning make this report possible. The Division also wishes to thank the state and local school officials who so willingly responded to the supplemental inquiries on the shortage of teachers.

This report was prepared by William S. Graybeal, Assistant Director, with the assistance of the Statistics Section of the Research Division.

GLEN ROBINSON
Director, Research Division

HIGHLIGHTS

- A record 301,027 persons completed teacher preparation programs with at least a bachelor's degree between September 1969 and August 31, 1970, an increase of 9.5 percent over the number reported for the previous year.
- The estimated number of new teachers needed to attain minimum levels of quality staffing (Quality Criterion Estimate of teacher demand) in 1970 comprises 255,350 in elementary schools and 191,150 in secondary schools, a total of 446,500.
- The number of new teachers needed in 1970-71, as projected from trends in the improvement of staffing characteristics in recent years (Adjusted Trend Criterion Estimate), comprises 95,800 in elementary schools and 105,300 in secondary schools, a total of 201,100.
- The Quality Criterion Estimate of demand exceeds the expected supply of new teachers by 157,150, provided the turnover and re-entry rates of qualified experienced teachers approximates that of recent years. This shortage comprises 121,950 teachers at the elementary-school level and 35,200 at the secondary-school level.
- Based on the Adjusted Trend Criterion Estimate of demand, with allowance for the re-entry of qualified experienced teachers as in 1969-70, the supply is generally adequate, but shortages of beginning teachers are expected to continue in secondary-school mathematics, special education, vocational-technical courses, industrial arts, and some secondary-school sciences.
- Two special surveys of appropriate officials in state departments of education and in 67 of the largest school systems in late summer 1970 show that as a whole the supply is adequate but shortages of qualified teachers are continuing in all of the assignments listed above.
- As a result of the record size of the graduating class, only five states reported having a smaller number of qualified teacher applicants, with the following most frequently identified as contributing to the lower supply: location of vacancies not attractive, greater opportunities in business and industry, salaries and benefits not attractive, and federal programs. Among eight states reporting increased demand for qualified teachers this year the major factors contributing to this condition were added curricular offerings in five states, increased school enrollment in four states, reduction in class size in three states, new positions related to federal programs in three states, and larger number of teachers not returning to their positions in two states.

SPECIAL SURVEYS OF TEACHER SUPPLY AND DEMAND

TWO SPECIAL SURVEYS were conducted in mid-summer 1970 to obtain up-to-date information about (a) the direction of change, if any, in the factors which influence the supply and demand for public-school teachers; (b) the general status of supply-demand conditions in the states and major cities; (c) the subject areas in which shortages seem to be most widespread; and (d) conditions in the fall of 1970 as compared with one year earlier. This information provides a framework for interpreting the projections of teacher supply and demand in the regular study.

One survey was directed to the person having responsibility for teacher education and certification in each state department of education. These persons were asked to report their general impression of teacher supply and demand conditions in their state as of the last week in July. The second survey was sent to the 81 largest school systems (these systems enroll 50,000 or more pupils, and as a group employ one-fifth of all public-school teachers). Personnel directors in these systems were asked to report by each major assignment area: (a) the extent of difficulty they have encountered in filling teaching positions for 1970-71, (b) whether they have had to employ persons with substandard qualifications, and (c) the number of unfilled positions in the last week of July 1970.

General Conditions Reported by States

State department of education officials in 49 states were able to report the general condition of public-school teacher supply and demand this summer. Their assessment of how the total number of qualified applicants compared with the number of teaching position vacancies in late July 1970 was as follows:

- 2 states--some shortage of applicants
- 35 states--shortage of applicants in some subject areas and an excess in others
- 7 states--sufficient applicants to fill positions
- 1 state--some excess of applicants
- 4 states--substantial excess of applicants.

The remaining state did not have sufficient information readily available to follow a valid appraisal of conditions as of the last week of July.

The situation regarding qualified teacher applicants in late July 1970 compared with 1969 was reported by seven states as being about the same, and by 31 states as being less acute. Eight states reported the condition to be much less acute than one year ago. One state reported the condition to be much more acute than last year and one state reported the condition to be more acute than one year ago. Two states did not have sufficient information to report. The table below shows the 5-year trend in the alleviation of shortages:

| General condition of teacher supply and demand | Number of states reporting condition as of fall | | | | |
|---|---|------|------|------|------|
| | 1966 | 1967 | 1968 | 1969 | 1970 |
| Substantial shortage of applicants | 20 | 19 | 5 | 2 | 0 |
| Some shortage of applicants | 11 | 14 | 17 | 12 | 2 |
| Shortage of applicants in some subject areas and excess in others . | 8 | 11 | 19 | 32 | 35 |
| Sufficient applicants to fill positions | 0 | 1 | 1 | 1 | 7 |
| Some excess of applicants | 0 | 0 | 0 | 2 | 1 |
| Substantial excess of applicants | 0 | 0 | 0 | 0 | 4 |
| Valid appraisal not possible with present information | 11 | 5 | 8 | 1 | 1 |

Responding to an inquiry about conditions having unusual influence toward decreasing the supply of teachers this year, 40 states reported that the supply of qualified teacher applicants is not smaller than last year. For the five states which reported a smaller supply, the conditions having increased influence toward a small number of qualified applicants were location of vacancies not attractive in four states, location of vacancies not attractive in two states, federal programs in two states, requirements of military service in one state, and greater opportunities in business and industry in one state.

The states having a demand for new teachers greater than last year were asked to identify the factors having increased influence. For the eight states reporting increased demand the reasons include:

- 5 states--added curricular offerings
- 4 states--increased school enrollment
- 3 states--reduction in class size
- 3 states--new positions resulting from federal legislation
- 2 states--larger number of teachers not returning to their positions.

Shortages by Population Areas

Respondents in 44 states were able to report conditions by population areas in their state. Twenty-six reported having a shortage of applicants in rural areas; six reported a shortage in small cities; four, a shortage in central cities of large urban centers; and none reported a shortage in suburban areas. The numbers of states reporting conditions in these population areas as being more acute than observed last year were two states, in rural areas; two states, in small cities; two states, in central cities of large urban centers; and one state, in suburban areas.

The second survey queried personnel officers in each of the 81 largest school systems about teacher supply and demand conditions in their systems as of the last week in July. Sixty-seven systems reported a total of 2,314 unfilled positions. The unfilled positions represent 0.6 percent of the teachers in these systems in fall 1969.

The following shows the trend toward improvement in the supply of teachers in the reporting large school systems:

| Year | Number of systems reporting | Number of positions open in late July | Percent of total teaching positions represented by vacant positions |
|--------|-----------------------------|---------------------------------------|---|
| 1967 . | 57 | 7,843 | 2.4% |
| 1968 . | 76 | 5,482 | 1.6 |
| 1969 . | 76 | 4,013 | 1.0 |
| 1970 . | 67 | 2,314 | 0.6 |

Shortages by Teaching Assignment Area

According to state department of education personnel, many school systems are encountering extreme difficulty in filling teaching positions for 1970-71 in the following assignments (most frequently listed by 49 states reporting this

information): elementary-school librarians, 26 states; special education, 20 states; industrial arts, 19 states; special assignments in remedial reading, speech correction, etc., 16 states; special assignments directed to educationally disadvantaged children, nine states; women teachers of physical and health education, nine states; and mathematics, eight states. The most frequently listed assignment areas in which the 49 states expect school systems generally will have to employ persons with substandard qualifications are special education, 21 states; industrial arts, 11 states; elementary-school librarians, 10 states; trade-industrial-vocational-technical subjects, eight states; guidance counselors, eight states; special assignments in remedial reading, speech correction, etc., eight states; mathematics, seven states; and natural and physical sciences, seven states.

The assignments identified in the annual national survey as having an inadequate supply of teachers are also reported as being in short supply by significant numbers of large school systems. The most frequently identified assignments these 67 school systems report having extreme difficulty in filling and the assignments having the largest numbers of unfilled positions in late July are as follows:

| Assignment | Number of systems having EXTREME DIFFICULTY in filling positions | Number of positions not filled |
|---------------------------------------|--|--------------------------------|
| Industrial arts | 24 | 227 |
| Special education | 14 | 384 |
| Mathematics | 13 | 367 |
| Trade, industrial, vocational | 6 | 42 |
| Natural and physical sciences | 4 | 117 |
| Physical education (women) | 5 | 228 |
| Remedial reading, speech etc. | 6 | 107 |
| Elementary, regular instruction | 2 | 334 |

Supporting these reports of shortages are the relatively large numbers of these 67 large school systems which report they have had to employ persons with substandard qualifications in these assignment areas for 1970-71: nine, industrial arts; 12, special education; 10, mathematics; five, trade-industrial-vocational-technical courses; seven, natural and physical sciences; six, remedial reading and speech correction; and five, regular instruction in elementary grades.

THE SUPPLY OF NEW TEACHERS

MOST OF THE QUALIFIED new teachers are supplied from the following sources: (a) graduates currently completing teacher education programs, (b) former teachers currently interested in re-entering classroom teaching, and (c) teacher education graduates of previous years currently interested in entering the profession for the first time. The small remaining portion of the supply of new teachers comes from the pool of qualified teachers who have been assigned to nonteaching positions in the public schools, or have been teaching in higher education, and the pool of persons who have obtained through experience and specialized training the skills which will allow their placement in certain teaching positions, at least on a temporary basis.

The major objective of this section is to review the new supply of persons currently completing teacher education programs. The size of the pools of qualified persons who may enter teaching positions is estimated. However, it is difficult to identify the extent to which persons from these sources may be interested in and acceptable for employment.

Brief Overview of Major Sources of Supply

College Graduates Completing Teacher Education Programs in 1970

The summary provided in Table 1 shows there are expected to be 114,390 prospective elementary-school teachers and 167,802 prospective secondary-school teachers who will be completing their preparation with at least a bachelor's degree in time for entry into the teaching profession at the beginning of the 1970-71 session. Also, 8,275 prospective teachers of special education, 2,167 school librarians, and 3,945 guidance counselors are expected to be completing their professional preparation. (At least 4,448 additional persons are expected to have completed preparation for employment as school psychologists, school social workers, school nurses, or other supporting positions.)

Not all persons in this gross supply of new teachers will be available for immediate entry into classrooms. The proportions of teacher

education graduates, for whom follow-up information is available, who actually enter active teaching status during the subsequent session have ranged from 74.1 to 83.2 percent for elementary- and 62.3 to 69.2 percent for high-school teachers during the past 10 years. Applying the rate of entry during a period when positions were widely available provides an estimate of about 98,280 elementary- and 128,960 high-school teachers who may be available to enter the profession from this source in the fall of 1970.

Qualified Former Teachers

Some of the teachers who leave their positions may be expected to return to the profession. In addition to many teachers on leaves of absence, a significant number of teachers return to the classroom following widely varied lengths of interruptions. A survey conducted by the NEA Research Division in 1959-60 noted that 44.1 percent of the public-school teachers had interrupted their careers since beginning teaching. The mean length of interruption was 8.3 years. About 7.5 percent of the teachers had interrupted their careers for longer than 15 years. As may be expected, interruption in their teaching careers was much more widespread among married women teachers (61.1 percent) than among either single women teachers (24.4 percent) or men teachers (24.0 percent). Only 37.8 percent of teachers in a similar study in 1965-66 reported having interrupted their careers since beginning teaching. Interruption continued to be more widespread among married women teachers (53.5 percent) than among single women teachers (15.7 percent) or men teachers (19.5 percent).

The pool of former teachers below the college level who had completed four years of college and were unemployed in 1960 was estimated by the U. S. Bureau of the Census to comprise about 304,460 persons. Problems of definition of teacher, particularly in the vocational areas, by the census enumerators make this a very general estimate. Almost 40,000 of the persons enumerated in this pool were age 65 or more; 11,900 were between ages 60 and 64. An assumption that this pool contains the 20-year accumulation of about 1.5 percent of the teachers each year suggests that this reserve has increased to about 422,200 persons during the past eight years. However, the change in

TABLE 1A. -- COLLEGE STUDENTS COMPLETING BACHELOR'S DEGREE, 1970 AND 1969, BY FIELD

| LINE NO | TYPE OF PREPARATION | MEN | 1970 WOMEN | TOTAL | MEN | 1969 WOMEN | TOTAL | 1969 TO 1970 NET CHANGE | PERCENT CHANGE |
|---------|---|--------|------------|---------|--------|------------|---------|-------------------------|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| | ELEMENTARY-SCHOOL TOTAL | 10,430 | 90,974 | 102,175 | 9,352 | 87,706 | 97,295 | + 4,880 | + 5.0 |
| 1 | REGULAR INSTRUCTION | 9,187 | 88,301 | 98,174 | 8,291 | 85,288 | 93,802 | + 4,372 | + 4.7 |
| | SELECTED SUBJECTS(TOTAL) | 1,243 | 2,673 | 4,001 | 1,061 | 2,418 | 3,493 | + 508 | + 14.5 |
| 2 | ART | 178 | 894 | 1,085 | 159 | 781 | 952 | + 133 | + 14.0 |
| 3 | FOREIGN LANGUAGES | 21 | 294 | 315 | 22 | 250 | 272 | + 43 | + 15.8 |
| 4 | MUSIC | 380 | 817 | 1,199 | 345 | 814 | 1,161 | + 38 | + 3.3 |
| 5 | PHYSICAL & HEALTH EDUCATION ... | 664 | 668 | 1,402 | 535 | 573 | 1,108 | + 294 | + 26.5 |
| | SECONDARY SCHOOL | | | | | | | | |
| 6 | AGRICULTURE | 1,504 | 164 | 1,668 | 1,285 | 21 | 1,306 | + 362 | + 27.7 |
| 7 | ART | 1,874 | 4,583 | 6,466 | 1,585 | 3,907 | 5,498 | + 968 | + 17.6 |
| 8 | BUSINESS EDUCATION | 2,966 | 6,817 | 9,783 | 2,476 | 6,222 | 8,698 | + 1,085 | + 12.5 |
| 9 | DISTRIBUTIVE EDUCATION | 340 | 145 | 485 | 320 | 81 | 402 | + 83 | + 20.6 |
| | ENGLISH LANGUAGE ARTS(TOTAL) | 7,161 | 21,952 | 29,281 | 5,869 | 20,303 | 26,269 | + 3,012 | + 11.5 |
| 10 | ENGLISH | 5,650 | 18,869 | 24,682 | 4,692 | 17,727 | 22,511 | + 2,171 | + 9.6 |
| 11 | JOURNALISM | 133 | 349 | 482 | 92 | 262 | 354 | + 128 | + 36.2 |
| 12 | SPEECH AND DRAMATIC ARTS | 1,378 | 2,734 | 4,117 | 1,085 | 2,314 | 3,404 | + 713 | + 20.9 |
| | FOREIGN LANGUAGES(TOTAL) | 1,810 | 7,317 | 9,189 | 1,505 | 6,846 | 8,384 | + 805 | + 9.6 |
| 13 | FRENCH | 471 | 3,043 | 3,564 | 434 | 2,884 | 3,342 | + 222 | + 6.6 |
| 14 | GERMAN | 301 | 729 | 1,032 | 235 | 670 | 910 | + 122 | + 13.4 |
| 15 | LATIN | 105 | 304 | 412 | 88 | 282 | 370 | + 42 | + 11.4 |
| 16 | RUSSIAN | 48 | 89 | 137 | 36 | 72 | 108 | + 29 | + 26.9 |
| 17 | SPANISH | 811 | 2,825 | 3,643 | 640 | 2,531 | 3,176 | + 467 | + 14.7 |
| 18 | OTHER | 74 | 327 | 401 | 72 | 407 | 478 | - 77 | - 16.1 |
| 19 | HOME ECONOMICS | 4 | 7,501 | 7,528 | 105 | 6,865 | 6,983 | + 545 | + 7.8 |
| 20 | INDUSTRIAL ARTS | 4,566 | 49 | 4,638 | 4,115 | 30 | 4,145 | + 493 | + 11.9 |
| 21 | JUNIOR HIGH SCHOOL(GENERAL) | 259 | 330 | 590 | 286 | 395 | 681 | - 91 | - 13.4 |
| 22 | MATHEMATICS | 5,237 | 5,479 | 10,762 | 4,902 | 5,131 | 10,057 | + 705 | + 7.0 |
| 23 | MUSIC | 3,199 | 3,956 | 7,158 | 2,795 | 3,480 | 6,275 | + 883 | + 14.1 |
| 24 | PHYSICAL & HEALTH EDUCATION | 10,806 | 7,118 | 17,984 | 9,038 | 6,469 | 15,562 | + 2,422 | + 15.6 |
| | NATURAL & PHYSICAL SCIENCES | | | | | | | | |
| | (TOTAL) | 6,450 | 3,979 | 10,474 | 5,597 | 3,557 | 9,185 | + 1,289 | + 14.0 |
| 25 | SUBJECT NOT SPECIFIED | 948 | 576 | 1,556 | 716 | 521 | 1,268 | + 288 | + 22.7 |
| 26 | GENERAL SCIENCE | 848 | 395 | 1,247 | 796 | 421 | 1,217 | + 30 | + 2.5 |
| 27 | BIOLOGY | 3,382 | 2,515 | 5,906 | 3,009 | 2,216 | 5,225 | + 681 | + 13.0 |
| 28 | CHEMISTRY | 819 | 406 | 1,225 | 724 | 328 | 1,052 | + 173 | + 16.4 |
| 29 | PHYSICS | 453 | 87 | 540 | 352 | 71 | 423 | + 117 | + 27.7 |
| | SOCIAL STUDIES(TOTAL) | 19,320 | 12,624 | 32,066 | 16,614 | 11,133 | 27,822 | + 4,244 | + 15.3 |
| 30 | SUBJECT NOT SPECIFIED | 8,570 | 5,504 | 14,174 | 7,573 | 4,855 | 12,503 | + 1,671 | + 13.4 |
| 31 | HISTORY, GEOGRAPHY | 7,561 | 4,712 | 12,295 | 6,347 | 4,168 | 10,515 | + 1,780 | + 16.9 |
| 32 | ECONOMICS, SOCIOLOGY, PSYCHOLOGY | 1,617 | 1,478 | 3,095 | 1,246 | 1,183 | 2,429 | + 666 | + 27.4 |
| 33 | OTHER SOCIAL STUDIES | 1,572 | 930 | 2,502 | 1,448 | 927 | 2,375 | + 127 | + 5.3 |
| 34 | TRADE, INDUSTRY, TECHNOLOGY | 570 | 37 | 613 | 521 | 34 | 555 | + 58 | + 10.5 |
| 35 | OTHER SECONDARY SUBJECTS | 312 | 403 | 715 | 286 | 298 | 584 | + 131 | + 22.4 |
| | SECONDARY-SCHOOL TOTAL | 66,384 | 82,454 | 149,400 | 57,299 | 74,772 | 132,406 | +16,994 | + 12.8 |
| | UNGRADED | | | | | | | | |
| 36 | SPECIAL EDUCATION | 949 | 5,677 | 6,626 | 810 | 5,185 | 5,995 | + 631 | + 10.5 |
| 37 | LIBRARIAN | 100 | 1,099 | 1,199 | 81 | 1,005 | 1,086 | + 113 | + 10.4 |
| 38 | GUIDANCE COUNSELOR | 119 | 137 | 256 | 69 | 55 | 124 | + 132 | +106.5 |
| 39 | SCHOOL PSYCHOLOGIST | 62 | 53 | 115 | 38 | 39 | 77 | + 38 | + 49.4 |
| 40 | SCHOOL SOCIAL WORKER | .. | .. | .. | 1 | 12 | 13 | - 13 | -100.0 |
| 41 | SCHOOL NURSE | 1 | 268 | 274 | 3 | 328 | 331 | - 57 | - 17.2 |
| 42 | OTHER UNGRADED | 387 | 1,116 | 1,503 | 404 | 1,180 | 1,584 | - 81 | - 5.1 |
| | GRAND TOTAL | 78,432 | 181,778 | 261,548 | 68,057 | 170,282 | 238,911 | +22,637 | + 9.5 |

Explanatory Comments on Tables IA and IB

1. Coverage. This 23rd annual national survey comprises reports from almost all colleges and universities offering courses leading to the standard certificate for teaching in public schools of the state in which the institution is situated. Thus, Table 1 provides complete coverage of 47 states and the District of Columbia, and almost complete coverage of threestates. The figures given for 1969 are for the end of the year and reflect the total number graduating in 1969 who met certificate requirements. The figures given for 1970 are estimates of the numbers of persons expected to complete their preparation before September 1970. In the report issued for 1969 the total 1969 production was estimated to be 287,549. The total number of persons completing preparation in 1969 was reported in the present study to be 275,028, a decrease of 4.4 percent under the number estimated one year earlier.

2. Classification. Each graduate is counted only once. Those prepared for elementary-school assignments are considered separately from those prepared for similar assignments in secondary schools. Where the graduate is completing preparation for more than one assignment area, he is counted in the field of major concentration.

3. Numbers Prepared for Specific Subjects. Students broadly prepared in English language arts, foreign languages, science, and social studies may have been listed in the general categories or in the specific component subjects. Therefore, the supply listed for a specific subject within these groups may be a minimum rather than an actual estimate of the new supply for the subject. As a result, the comparisons of estimated supply and demand in this study are directed to these major groupings rather than to the specific component subjects. Also, some institutions reported only the total number of graduates in the major subject classifications; therefore, the sum of the entries for components is not always equal to the total listed.

4. Other (lines 35 and 42). Most institutions reporting persons in these lines did not

identify the type of preparation being completed. A few institutions reported in this category the numbers of persons completing preparation for administrative or supervisory assignments.

5. Fields Covering 12 Grades. Some students are prepared to teach a subject at all grade levels. The present study provides for listing as elementary the numbers expected to teach selected subjects in elementary school. Also, persons prepared to teach special education classes and to fill supporting instructional assignments are listed separately as completing preparation for ungraded assignments. In studies prior to 1967 these were included in high-school subjects.

6. Fifth-Year or Master's Degree Requirements. The information for the advanced degree classification is likely to be under-reported because several institutions are not prepared to report information in this classification.

7. Less-Than-Degree Certificates. Although the bachelor's degree is now generally recognized as a minimum requirement for admission to teaching, a few states continue to issue certificates on the basis of less than a bachelor's degree. These partially prepared students are not included in this report.

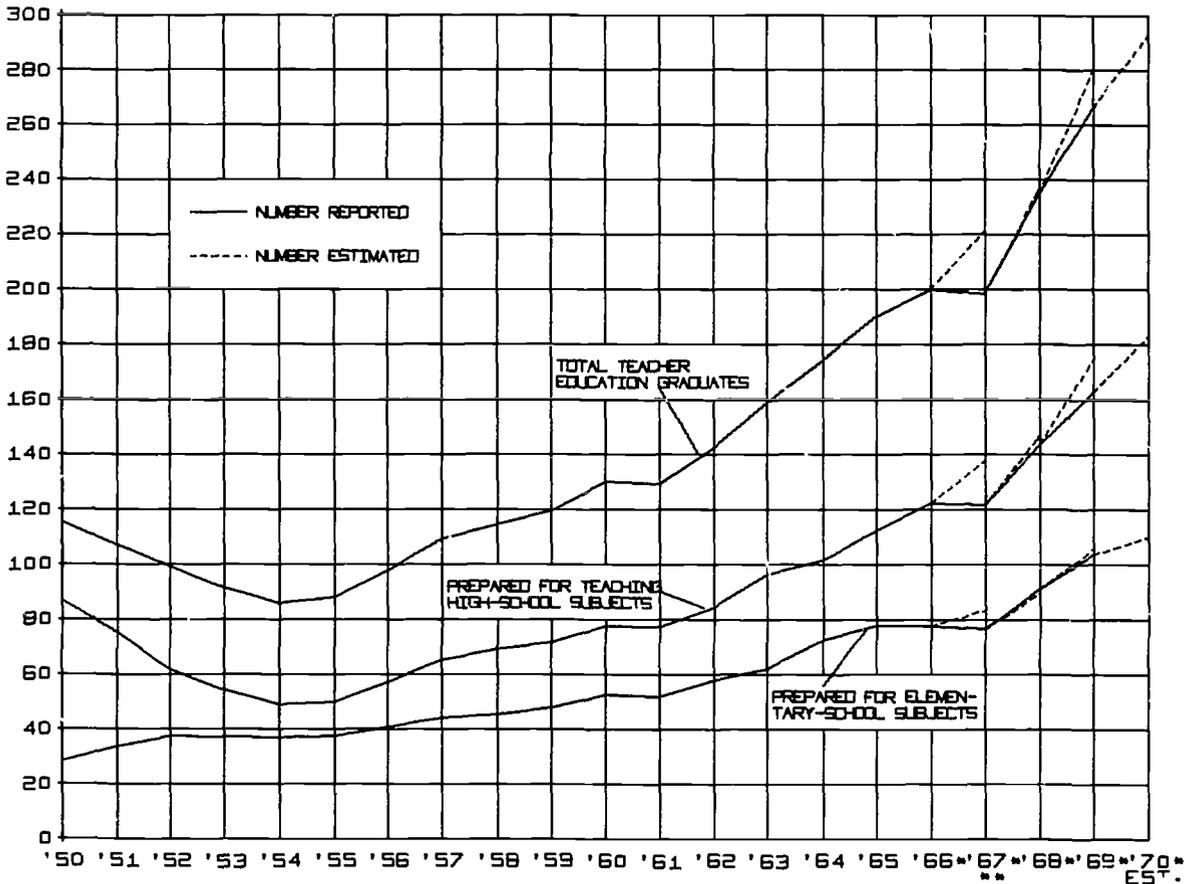
8. State Reports. Many state departments of education recognize the need for much more detailed information concerning the teacher supply-demand situation in their own states. To meet this need, they conduct state-wide studies which include numerous--more specific--elements. Usually such state studies are conducted by the state officials who collaborate in this annual national study. These state reports contribute to a fuller understanding of local conditions and further strengthen the guidance efforts of counselors in high schools and colleges.

TABLE 18. -- COLLEGE STUDENTS COMPLETING MASTER'S DEGREE AND TOTAL COMPLETING BACHELOR'S AND MASTER'S DEGREES, 1970 AND 1969, BY FIELD

| LINE NO. | TYPE OF PREPARATION | 1970 MEN | 1970 WOMEN | 1970 TOTAL | 1969 MEN | 1969 WOMEN | 1969 TOTAL | 1969 TO 1970 NET CHANGE | 1969 TO 1970 PERCENT CHANGE | TOTAL, 1970 | BACHELOR'S AND MASTER'S, 1969 | NET CHANGE | PERCENT CHANGE |
|-------------------------------------|--|----------|------------|------------|----------|------------|------------|-------------------------|-----------------------------|-------------|-------------------------------|------------|----------------|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |
| ELEMENTARY-SCHOOL | | | | | | | | | | | | | |
| | TOTAL | 2,254 | 9,789 | 12,215 | 1,769 | 8,556 | 10,325 | + 1,890 | + 18.3 | 114,390 | 107,620 | + 6,770 | + 6.3 |
| 1 | REGULAR INSTRUCTION .. | 2,116 | 9,437 | 11,714 | 1,648 | 8,204 | 9,852 | + 1,862 | + 18.9 | 109,888 | 103,654 | + 6,234 | + 6.0 |
| | SELECTED SUBJECTS | | | | | | | | | | | | |
| | (TOTAL) | 138 | 352 | 501 | 121 | 352 | 473 | + 28 | + 5.9 | 4,502 | 3,966 | + 536 | + 13.5 |
| 2 | ART | 37 | 158 | 206 | 34 | 200 | 234 | - 28 | - 12.0 | 1,291 | 1,186 | + 105 | + 8.9 |
| 3 | FOREIGN LANGUAGES .. | 11 | 87 | 98 | 17 | 50 | 67 | + 31 | + 46.3 | 1,413 | 339 | + 74 | + 21.8 |
| 4 | MUSIC | 30 | 61 | 91 | 25 | 60 | 85 | + 6 | + 7.1 | 420 | 1,246 | + 44 | + 3.5 |
| 5 | PHYSICAL & HEALTH EDUCATION | 60 | 46 | 106 | 45 | 42 | 87 | + 19 | + 21.8 | 1,508 | 1,195 | + 313 | + 26.2 |
| SECONDARY SCHOOL | | | | | | | | | | | | | |
| 6 | AGRICULTURE | 225 | 28 | 253 | 172 | 42 | 214 | + 39 | + 18.2 | 1,921 | 1,520 | + 401 | + 26.4 |
| 7 | ART | 267 | 604 | 877 | 257 | 516 | 773 | + 104 | + 13.5 | 7,343 | 6,271 | + 1,072 | + 17.1 |
| 8 | BUSINESS EDUCATION .. | 360 | 673 | 1,044 | 346 | 498 | 844 | + 200 | + 23.7 | 10,827 | 9,542 | + 1,285 | + 13.5 |
| 9 | DISTRIBUTIVE EDUC. .. | 59 | 41 | 100 | 48 | 18 | 66 | + 34 | + 51.5 | 585 | 468 | + 117 | + 25.0 |
| | ENGLISH LANGUAGE ARTS (TOTAL) | 1,042 | 2,161 | 3,338 | 843 | 2,055 | 2,896 | + 440 | + 15.2 | 32,619 | 29,167 | + 3,452 | + 11.8 |
| 10 | ENGLISH | 873 | 1,887 | 2,895 | 730 | 1,857 | 2,587 | + 308 | + 11.9 | 27,577 | 25,098 | + 2,479 | + 9.9 |
| 11 | JOURNALISM | 25 | 49 | 74 | 24 | 54 | 78 | - 4 | - 5.1 | 556 | 432 | + 124 | + 28.7 |
| 12 | SPEECH & DRAMATIC ARTS | 144 | 225 | 369 | 89 | 144 | 233 | + 136 | + 58.4 | 4,486 | 3,637 | + 849 | + 23.3 |
| | FOREIGN LANGUAGES (TOTAL) | 347 | 900 | 1,254 | 279 | 852 | 1,131 | + 123 | + 10.9 | 10,443 | 9,515 | + 928 | + 9.8 |
| 13 | FRENCH | 86 | 354 | 443 | 78 | 305 | 383 | + 60 | + 15.7 | 4,007 | 3,725 | + 282 | + 7.6 |
| 14 | GERMAN | 40 | 95 | 135 | 38 | 89 | 127 | + 8 | + 6.3 | 1,167 | 1,037 | + 130 | + 12.5 |
| 15 | LATIN | 22 | 41 | 63 | 28 | 54 | 82 | - 19 | - 23.2 | 475 | 452 | + 23 | + 5.1 |
| 16 | RUSSIAN | 15 | 20 | 35 | 4 | 9 | 13 | + 22 | + 169.2 | 172 | 121 | + 51 | + 42.1 |
| 17 | SPANISH | 137 | 304 | 445 | 103 | 308 | 411 | + 34 | + 8.3 | 4,088 | 3,587 | + 501 | + 14.0 |
| 18 | OTHER | 47 | 86 | 133 | 28 | 87 | 115 | + 18 | + 15.7 | 534 | 593 | - 59 | - 9.9 |
| 19 | HOME ECONOMICS | ... | 504 | 510 | ... | 435 | 435 | + 75 | + 17.2 | 8,038 | 7,418 | + 620 | + 8.4 |
| 20 | INDUSTRIAL ARTS | 543 | 9 | 552 | 504 | 5 | 509 | + 43 | + 8.4 | 5,190 | 4,654 | + 536 | + 11.5 |
| 21 | JR. HIGH SCHOOL (GENERAL) | 24 | 27 | 51 | 67 | 25 | 92 | - 41 | - 44.6 | 641 | 773 | - 132 | - 17.1 |
| 22 | MATHEMATICS | 753 | 563 | 1,331 | 663 | 510 | 1,173 | + 158 | + 13.5 | 12,093 | 11,230 | + 863 | + 7.7 |
| 23 | MUSIC | 339 | 284 | 631 | 322 | 288 | 610 | + 20 | + 3.3 | 7,788 | 6,885 | + 903 | + 13.1 |
| 24 | PHYSICAL & HEALTH EDUCATION | 1,086 | 599 | 1,713 | 969 | 535 | 1,504 | + 209 | + 13.9 | 19,697 | 17,066 | + 2,631 | + 15.4 |
| | NATURAL & PHYSICAL SCIENCES (TOTAL) .. | 1,142 | 602 | 1,757 | 1,008 | 550 | 1,558 | + 199 | + 12.8 | 12,231 | 10,743 | + 1,488 | + 13.9 |
| 25 | SUBJECT NOT SPEC. .. | 248 | 146 | 394 | 234 | 139 | 373 | + 21 | + 5.6 | 1,950 | 1,641 | + 309 | + 18.8 |
| 26 | GENERAL SCIENCE ... | 214 | 76 | 294 | 146 | 60 | 206 | + 88 | + 42.7 | 1,541 | 1,423 | + 118 | + 8.3 |
| 27 | BIOLOGY | 474 | 289 | 772 | 410 | 290 | 700 | + 72 | + 10.3 | 6,678 | 5,925 | + 753 | + 12.7 |
| 28 | CHEMISTRY | 130 | 73 | 203 | 135 | 49 | 184 | + 19 | + 10.3 | 1,428 | 1,236 | + 192 | + 15.5 |
| 29 | PHYSICS | 76 | 18 | 94 | 83 | 12 | 95 | - 1 | - 1.1 | 634 | 518 | + 116 | + 22.4 |
| | SOCIAL STUDIES (TOTAL) | 2,262 | 1,668 | 3,964 | 2,023 | 1,454 | 3,477 | + 487 | + 14.0 | 36,030 | 31,299 | + 4,731 | + 15.1 |
| 30 | SUBJECT NOT SPEC. .. | 828 | 661 | 1,521 | 780 | 566 | 1,346 | + 175 | + 13.0 | 15,695 | 13,849 | + 1,846 | + 13.3 |
| 31 | HISTORY, GEOGRAPHY .. | 967 | 726 | 1,693 | 911 | 659 | 1,570 | + 123 | + 7.8 | 13,988 | 12,085 | + 1,903 | + 15.7 |
| 32 | ECONOMICS, SOCIOLOGY, PSYCHOLOGY .. | 232 | 138 | 372 | 159 | 112 | 271 | + 101 | + 37.3 | 3,467 | 2,700 | + 767 | + 28.4 |
| 33 | OTHER SOCIAL STUDIES | 235 | 143 | 378 | 173 | 117 | 290 | + 88 | + 30.3 | 2,880 | 2,665 | + 215 | + 8.1 |
| 34 | TRADE, INDUSTRY, TECHNOLOGY | 106 | 14 | 120 | 117 | 5 | 122 | - 2 | - 1.6 | 733 | 677 | + 56 | + 8.3 |
| 35 | OTHER SECONDARY SUBJ. | 510 | 398 | 908 | 500 | 378 | 940 | - 32 | - 3.4 | 1,623 | 1,524 | + 99 | + 6.5 |
| SECONDARY-SCHOOL TOTAL | | | | | | | | | | | | | |
| | | 9,065 | 9,075 | 18,402 | 8,118 | 8,166 | 16,346 | + 2,056 | + 12.6 | 167,802 | 148,752 | + 19,050 | + 12.8 |
| UNGRADED | | | | | | | | | | | | | |
| 36 | SPECIAL EDUCATION ... | 436 | 1,196 | 1,649 | 485 | 1,365 | 1,850 | - 201 | - 10.9 | 8,275 | 7,845 | + 430 | + 5.5 |
| 37 | LIBRARIAN | 163 | 773 | 968 | 164 | 794 | 958 | + 10 | + 1.0 | 2,167 | 2,044 | + 123 | + 6.0 |
| 38 | GUIDANCE COUNSELOR .. | 1,904 | 1,780 | 3,689 | 2,078 | 2,010 | 4,088 | - 399 | - 9.8 | 3,945 | 4,212 | - 267 | - 6.3 |
| 39 | SCHOOL PSYCHOLOGIST .. | 200 | 233 | 433 | 230 | 240 | 470 | - 37 | - 7.9 | 548 | 547 | + 1 | + .2 |
| 40 | SCHOOL SOCIAL WORKER .. | 196 | 75 | 271 | 91 | 74 | 165 | + 106 | + 64.2 | 271 | 178 | + 93 | + 52.2 |
| 41 | SCHOOL NURSE | 1 | 45 | 46 | 2 | 71 | 73 | - 27 | - 37.0 | 320 | 404 | - 84 | - 20.8 |
| 42 | OTHER UNGRADED | 989 | 817 | 1,806 | 948 | 826 | 1,842 | - 36 | - 2.0 | 3,309 | 3,426 | - 117 | - 3.4 |
| GRAND TOTAL | | | | | | | | | | | | | |
| | | 15,208 | 23,783 | 39,479 | 13,885 | 22,102 | 36,117 | + 3,362 | + 9.3 | 301,027 | 275,028 | + 25,999 | + 9.5 |

FIGURE I
GROWTH IN SUPPLY OF BEGINNING TEACHERS

NUMBER OF
TEACHER
EDUCATION
GRADUATES
(THOUSANDS)



*GROUPED BY AREA OF PREPARATION AS NOTED IN TABLE 2.
 **A FEW INSTITUTIONS IN FOUR STATES DID NOT RESPOND IN 1968 MAKING THE ACTUAL NUMBERS REPORTED FOR 1967 LOWER THAN THE NUMBER WHICH PROBABLY GRADUATED THAT YEAR.
 NEA RESEARCH DIVISION

employment opportunities in schools and in other occupations may be increasing the number of persons in this pool this year.

Persons in this pool provide a reservoir from which some qualified teachers may be drawn to complete the session for teachers who terminate their contracts during the year, to fill new positions which may be created during the school year, to accept on a year-to-year basis employment in teaching positions which would normally be vacant owing to a critical shortage, and to serve as substitute teachers. Others in this pool who prefer to remain unemployed during normal economic conditions probably would return to employment, if requested, in the event of a critical shortage.

Teacher Education Graduates Who Postponed Entry into Profession

About 10 percent of the teacher education graduates for whom follow-up information is available do not enter the profession immediately but continue their schooling, enter military service, or begin full-time homemaking responsibilities. (A summary of current conditions is given later in this section.) Many of these potential teachers will enter the profession following completion of advanced schooling or a change in the conditions that influenced them to postpone employment as teachers.

An assumption that one-fifth to one-half of the graduates in these classifications normally

would be interested and available for employment at a later date suggests that 6,000 to 15,000 persons will enter this reserve this year.

Other Sources of New Teachers

Teaching is a second career for many persons who retire at a relatively early age from military or civil service. Many of them normally complete the teacher education programs and are included in the estimates of the number of new teachers being trained. Some persons in this pool who have the baccalaureate degree and the personal qualifications for successful teaching but have not completed teacher education programs are being placed in positions in which critical shortages dictate such employment.

Some teachers enter or re-enter classrooms from nonteaching positions in education, the graduating class of colleges and universities which do not have approved teacher education programs, teaching positions in post-high-school institutions or preschool classrooms, military service, and a wide variety of other occupations. Precise information is not available about the numbers of persons in these sources who may become part of the total supply of new teachers.

The New Supply of College Graduates Prepared To Teach

Summarized in Table 1 are the numbers of men and women who are expected to complete teacher education programs with the bachelor's or master's degree between September 1, 1969, and August 31, 1970.

Table 1 shows that a record of at least 114,390 persons are expected to complete their preparation for employment as regular classroom teachers in elementary schools in fall 1970. The enlargement beyond 1969 levels by 6,770 persons is an increase of 6.3 percent. The 12,215 who will have the master's degree represent 10.7 percent of all persons completing for the first time the requirements for entering the profession in regular elementary-school teaching assignments.

At the secondary-school level the number of graduates completing preparation to teach with a bachelor's degree in 1970 is an increase of

16,994, or 12.8 percent, and the number completing preparation with a master's degree is an increase of 2,056 persons, or 12.6 percent. The estimate of at least 167,802 persons completing preparation to teach secondary-school subjects is an increase of 12.8 percent over the number completing their preparation in 1969. The 18,402 having the master's degree represent 11.0 percent of the total number of graduates completing preparation to teach regular subjects in secondary schools.

The ungraded classifications listed in Table 1 are used for the fourth time this year and, as a result, may not have elicited complete reporting; many institutions may not have had data readily available in these classifications. Growth of 5.5 and 6.0 percent is reported in the numbers of persons completing preparation to teach special education classes and to serve as school librarians, respectively. Graduates in these two classifications have been reported by large numbers of institutions as "other" areas of preparation in earlier studies of this series. Some reduction is shown in the number of persons prepared to enter the profession as guidance counselors; the 267 fewer persons represent a decrease of 6.3 percent from the number reported for 1969.

The numbers reported for school psychologists, school social workers, and school nurses are most likely to be under the actual supply because these positions have not been "written in" widely in earlier studies of this series and the information was not readily available to the person completing the survey form. The increase of 93 in the number completing preparation to be school social workers represents a relatively large percentage increase. The apparent percentage decrease in the number completing preparation to be school nurses is not a major change when the 320 expected to complete their preparation in 1970 is compared with the 294 similarly estimated one year ago for 1969.

Comparison with Other Years

A review of trends in the supply of persons completing their preparation for teaching is provided by Table 2. To provide data groupings comparable with the earlier studies in this series, the numbers of persons completing preparation in selected subject fields for assignment in elementary schools or for special education, and library science, have been regrouped with the high-school subjects. The summary shows continuing growth in the numbers of persons being prepared for elementary- and

TABLE 2.—COLLEGE GRADUATES PREPARED TO TEACH, BY FIELD, AND PERCENT CHANGE FROM 1950^{a/}

| Line no. | 1950 | 1952 | 1954 | 1956 | 1958 | 1960 | 1962 | 1964 | 1966 | 1968 | 1969 | 1970 est. |
|--|---------|---------|---------|---------|---------|---------|---------|---------|----------------------|-----------------------|-----------------------|----------------------|
| 1 | 432,058 | 329,986 | 290,825 | 308,812 | 362,554 | 392,440 | 417,846 | 498,654 | 551,040 | 685,000 ^{e/} | 749,000 ^{e/} | 746,000 |
| 2 | ... | -23.6% | -32.7% | -28.5% | -16.1% | -9.2% | -3.3% | +15.4% | +27.5% | +58.5% | +73.4% | +72.7% |
| 3 | 28,587 | 37,649 | 36,885 | 40,801 | 45,318 | 52,630 | 57,854 | 72,581 | 77,703 | 91,336 | 103,654 | 109,888 |
| 4 | ... | +31.7% | +29.0% | +42.7% | +58.5% | +84.1% | +102.4% | +153.9% | +171.8% | +219.5% | +262.6% | +284.4% |
| PREPARED TO TEACH IN HIGH-SCHOOL OR SPECIFIC SUBJECTS: | | | | | | | | | | | | |
| 5 | 3,294 | 1,891 | 1,541 | 1,549 | 1,804 | 1,379 | 1,032 | 997 | 1,787 | 1,443 | 1,520 | 1,921 |
| 6 | ... | -42.6% | -53.2% | -53.0% | -45.2% | -58.1% | -68.7% | -69.7% | -45.7% | -56.2% | -53.9% | -41.7% |
| 7 | 2,225 | 2,249 | 1,856 | 2,072 | 2,233 | 2,719 | 3,031 | 4,031 | 4,998 | 6,502 | 7,457 | 8,634 |
| 8 | ... | +1.1% | -16.6% | -6.9% | +0.4% | +22.2% | +36.2% | +81.2% | +124.6% | +192.2% | +235.1% | +288.0% |
| 9 | 7,235 | 5,165 | 4,076 | 5,494 | 6,166 | 7,106 | 6,752 | 7,207 | 7,261 | 8,618 | 9,542 | 10,827 |
| 10 | ... | -28.6% | -43.7% | -24.1% | -14.8% | -1.8% | -6.7% | -0.4% | -0.4% | +19.1% | +31.9% | +49.6% |
| 11 | 10,709 | 8,211 | 5,278 | 5,945 | 7,706 | 9,295 | 11,886 | 16,021 | 18,410 | 23,008 | 25,098 | 27,577 |
| 12 | ... | -23.3% | -50.7% | -44.5% | -28.0% | -13.2% | +11.0% | +49.6% | +71.9% | +134.4% | +157.5% | +157.5% |
| 13 | 2,193 | 1,859 | 1,368 | 1,424 | 1,627 | 2,178 | 3,227 | 5,281 | 7,162 | 9,015 | 9,854 | 10,856 |
| 14 | ... | -15.2% | -37.6% | -35.1% | -25.8% | -0.7% | +47.2% | +140.8% | +226.5% | +311.1% | +349.3% | +395.0% |
| 15 | 4,899 | 4,648 | 4,212 | 4,522 | 4,755 | 4,812 | 4,788 | 5,281 | 5,690 | 6,754 | 7,418 | 8,038 |
| 16 | ... | -5.1% | -14.0% | -7.7% | -6.6% | -1.8% | -2.3% | +7.8% | +16.1% | +37.9% | +51.4% | +64.1% |
| 17 | 4,890 | 3,161 | 2,201 | 2,655 | 3,791 | 3,785 | 3,325 | 3,435 | 3,432 | 4,325 | 4,654 | 5,190 |
| 18 | ... | -35.4% | -55.0% | -45.7% | -22.5% | -22.6% | -22.0% | -29.8% | -29.8% | -11.5% | -4.8% | +6.1% |
| 19 | 4,618 | 3,142 | 2,223 | 2,544 | 3,445 | 5,652 | 6,839 | 8,026 | 9,193 | 10,090 | 11,230 | 12,693 |
| 20 | ... | -32.0% | -51.9% | -44.9% | -25.4% | +22.4% | +48.1% | +73.8% | +99.1% | +118.5% | +143.2% | +161.9% |
| 21 | 5,296 | 4,882 | 4,323 | 4,798 | 5,189 | 5,200 | 5,302 | 5,978 | 6,311 | 7,335 | 8,131 | 9,078 |
| 22 | ... | -7.8% | -18.4% | -9.4% | -2.0% | -1.8% | +0.1% | +12.9% | +19.2% | +38.5% | +53.5% | +71.4% |
| 23 | 10,614 | 6,546 | 4,834 | 5,718 | 7,430 | 7,332 | 6,997 | 7,181 | 8,552 ^{d/} | 9,137 | 10,742 | 12,830 ^{d/} |
| 24 | ... | -38.3% | -54.5% | -46.1% | -30.0% | -30.9% | -34.1% | -32.3% | -19.4% | -13.9% | +1.2% | +20.9% |
| 25 | 3,178 | 2,607 | 2,440 | 2,629 | 2,762 | 3,177 | 3,414 | 4,063 | 4,924 ^{d/} | 6,547 | 7,519 | 8,375 ^{d/} |
| 26 | ... | -18.0% | -23.2% | -17.3% | -13.1% | -1.1% | +7.4% | +27.8% | +54.9% | +106.0% | +136.6% | +163.5% |
| 27 | 9,096 | 5,246 | 3,641 | 4,320 | 5,467 | 7,119 | 7,808 | 8,608 | 10,476 | 10,126 | 10,743 | 12,231 |
| 28 | ... | -40.3% | -60.0% | -52.5% | -39.9% | -21.7% | -14.2% | -5.4% | +15.2% | +11.3% | +18.1% | +34.5% |
| 29 | 15,349 | 9,406 | 7,227 | 9,125 | 11,672 | 13,197 | 14,724 | 18,583 | 22,381 | 26,328 | 31,299 | 36,030 |
| 30 | ... | -38.7% | -52.9% | -40.5% | -24.0% | -14.0% | -4.1% | +21.1% | +45.8% | +71.5% | +103.9% | +134.7% |
| 31 | 3,294 | 2,497 | 3,696 | 3,990 | 5,226 | 4,622 | 5,364 | 6,860 | 11,631 ^{e/} | 14,383 ^{e/} | 17,400 ^{e/} | 19,066 ^{e/} |
| 32 | ... | -24.4% | +12.2% | +21.1% | +58.7% | +40.3% | +62.8% | +108.3% | +253.1% | +336.6% | +428.2% | +478.8% |
| 33 | 86,890 | 61,510 | 48,916 | 56,785 | 69,093 | 77,573 | 84,489 | 101,552 | 122,208 | 143,611 | 162,607 | 182,746 |
| 34 | ... | -29.2% | -43.7% | -34.6% | -20.5% | -10.7% | -2.8% | +16.9% | +40.6% | +65.3% | +87.1% | +110.3% |
| 35 | 115,477 | 99,159 | 85,801 | 97,586 | 114,411 | 130,203 | 142,343 | 174,133 | 204,918 | 241,504 | 275,028 | 301,027 |
| 36 | ... | -14.1% | -25.7% | -15.5% | -0.9% | +12.8% | +23.3% | +50.8% | +77.5% | +109.1% | +138.2% | +160.7% |
| 37 | ... | ... | ... | ... | ... | ... | ... | ... | 5,007 | 6,557 | 8,767 | 8,393 |

^{a/} Excludes students meeting certificate requirements at 90-, 60-, or 30-hour levels. ^{b/} From: U. S. Department of Health, Education and Welfare, Office of Education, *Digest of Educational Statistics*, Washington, D. C.: Government Printing Office, 1968, p. 89. Includes bachelor's and first professional degrees. ^{c/} From: U. S. Department of Health, Education and Welfare, Office of Education, *Projections of Educational Statistics to 1977-78*, 1968 edition, Washington, D. C.: Government Printing Office, 1969, p. 31. ^{d/} Numbers of persons for whom sex was not reported are included proportionally. ^{e/} Minus less than 1/10 of 1 percent. ^{f/} Includes person prepared to teach distributive education, unspecified junior high-school subjects, trade and industrial courses, special education, unspecified elementary-school classes, speech, drama, journalism, library sciences, and subjects not specified. ^{g/} Not directly comparable with earlier years owing to changes in the data-collection instruments.

TABLE 3.--NUMBER OF MEN TEACHER EDUCATION GRADUATES, NUMBER OF MEN TEACHERS IN PUBLIC SCHOOLS, AND PERCENT OF TEACHER EDUCATION GRADUATES AND PERCENT OF ALL TEACHERS WHO ARE MEN, BIENNIALLY FROM 1951-52 TO 1965-66 AND ANNUALLY TO 1969-70

| Session | Number of men | | Percent who are men | | | | | |
|---------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| | | | Elementary | | Secondary | | Total | |
| | Teacher education graduates | All teach-ers ^{a/} |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| 1951-52 | 43,485 | 234,942 | 19.4% | 12.5% | 57.1% | 45.9% | 44.2% | 24.4% |
| 1953-54 | 33,121 | 253,518 | 15.3 | 12.2 | 52.4 | 46.3 | 37.2 | 24.6 |
| 1955-56 | 36,603 | 294,170 | 13.4 | 12.7 | 52.7 | 49.3 | 36.8 | 26.0 |
| 1957-58 | 45,662 | 331,663 | 13.5 | 12.8 | 55.3 | 50.4 | 39.4 | 26.8 |
| 1959-60 | 49,495 | 392,670 | 12.5 | 14.1 | 53.9 | 52.8 | 38.3 | 29.0 |
| 1961-62 | 51,621 | 436,575 | 12.2 | 14.5 | 51.6 | 53.3 | 36.2 | 29.9 |
| 1963-64 | 52,731 | 487,969 | 10.1 | 14.5 | 44.7 | 53.9 | 30.3 | 31.1 |
| 1965-66 | 61,822 | 543,768 | 11.1 ^{b/} | 15.2 | 46.0 ^{c/} | 53.1 | 31.4 ^{d/} | 31.8 |
| 1966-67 | 59,573 | 565,339 | 11.2 ^{b/} | 14.7 | 44.3 ^{c/} | 53.5 | 30.4 ^{d/} | 31.6 |
| 1967-68 | 68,508 | 589,982 | 10.5 ^{b/} | 14.6 | 43.4 ^{c/} | 53.5 | 29.4 ^{d/} | 31.7 |
| 1968-69 | 77,833 | 623,472 | 10.4 ^{b/} | 15.1 | 44.1 ^{c/} | 53.3 | 29.5 ^{d/} | 32.1 |
| 1969-70 | 89,518 | 647,353 | 11.2 ^{b/} | 15.4 | 45.2 ^{c/} | 53.5 | 31.0 ^{d/} | 32.4 |

a/ Data for 1951-52 through 1955-56 from: U.S. Department of Health, Education, and Welfare, Office of Education. Biennial Survey of Education in the United States: 1952-56, Chapter 1, "Statistical Summary of Education, 1953-54," p. 12. Biennial Survey of Education in the United States: 1954-56, Chapter 1, "Statistical Summary of Education, 1955-56," p. 14.

Data for 1957-58 through 1969-70 from: National Education Association, Research Division. Estimates of School Statistics, 1969-70. Research Report 1969-R15. Washington, D.C.: the Association, 1969. p. 14. And earlier editions.

b/ Includes graduates prepared to teach selected subjects at the elementary level.

c/ Does not include persons preparing for ungraded assignments including special education, library science, guidance, school psychologist, school social worker, school nurse, and other ungraded positions.

d/ Includes persons prepared for special education assignment at either level.

high-school assignments. With 1950 as a base, the first year for which complete data are available, the percentages show the general pattern of growth in the supply of college graduates prepared to teach in elementary schools and in the high-school subjects. The table shows that the total number of persons receiving a bachelor's or first professional degree was below the 1950 level through 1960, approached the 1950 level in 1961-62, and has exceeded the 1950 level since 1962. A similar general pattern of lower annual new supply during the 1950-1959 period followed by greater supply since 1962 is observed among the number of persons being prepared to teach in high schools. The number being prepared to teach in elementary schools has been consistently greater than the 1950 level, more than twice as many being graduated each year between 1962 and 1967, more than three times as many in 1968 and 1969, and almost four times as many in 1970 as were being prepared in 1950.

Among the high-school subject areas the numbers of new teacher education graduates are

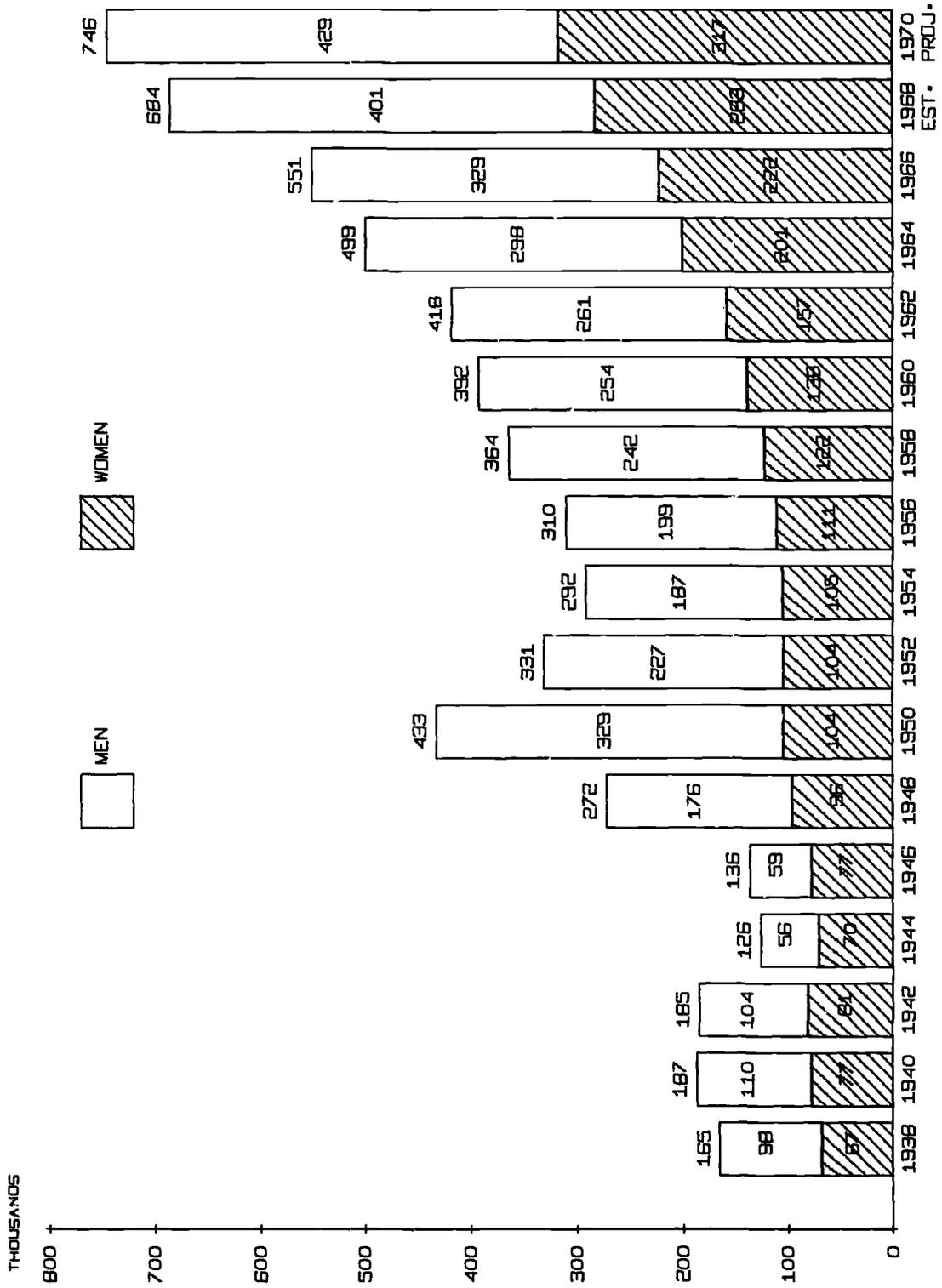
expected to exceed 1950 levels in all areas except agriculture. The current status is a marked change from the 1952 through 1958 period in which the number of new high-school teachers being graduated was lower than the 1950 levels in all areas except "other fields."

Table 2 (page 14) should be interpreted with consideration given to the following:

(a) The base year, 1950, contained the crest of the wave of returning World War II veterans who completed their college degrees. (b) The supply of new teacher education graduates in 1950 was not in balance with the demand for new teachers. (c) The impact of the increase in demand for public-school teachers for the flood of enlarged public-school enrollments was yet to be felt. It reached the first grade beginning in 1952-53.

While the number of new elementary-school teacher education graduates has consistently exceeded 1950 levels, this new supply has not

FIGURE II
BACHELOR'S AND FIRST PROFESSIONAL DEGREES CONFERRED,
1938 TO 1970 BIENNIALLY



SOURCE - U.S. OFFICE OF EDUCATION REPORTS AND PROJECTIONS OF EDUCATIONAL STATISTICS TO 1977-78 (1968 EDITION) • P.31
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approached the level of the new supply of high-school teachers. During the years in which the elementary-school staff was increasing by larger numbers than the staff in high schools, the number of prospective elementary-school teachers being graduated ranged from one-half to three-fourths as large as the number of prospective high-school teachers.

Also shown in Table 1 are the numbers of persons completing teacher education programs in 1970 and 1969 listed separately by sex at each level. The summary in Table 3 shows that the number of men expected to complete teacher education programs has been increasing since 1954-55. Also listed in Table 3 are the percentages of teacher education graduates and the percentages of all public-school teachers who are men, biennially since 1951-52. Between 1951-52 and 1963-64 there was a decrease in the proportions of teacher education graduates who are men which was accompanied by increasing proportions of the total numbers of teachers who were men. The trend seems to have slowed after 1963-64. Since 1961-62 the number of men has represented less than half of the number of persons expected to complete teacher education programs for entry into secondary-school teaching.

New Supply as Percentage of Graduating Class

A broad perspective of the supply of potential teachers may be obtained through a review of the numbers of persons graduating with the bachelor's and first professional degrees. A summary showing the numbers of men and women graduates since 1938 in two-year intervals is given in Figure II. Since 1963 the number of graduates has exceeded the 1950 level, the peak of the increase in college graduates following World War II. The graduating class of 1970 is estimated to be more than one-third larger than the class of 1966.

The percentages of graduates receiving the bachelor's or first professional degree represented by persons completing teacher education programs suggest that teacher preparation attracted an increasing proportion of persons enrolled in higher education until 1966, held near the 1966 level through 1969, and may have increased slightly at the secondary school level in 1970. These classifications are not entirely comparable because the number of teacher education graduates includes persons completing the master's degree and the basis for counting graduates with the first professional degree changed in 1966. Also, because the 1970 projection of graduates is likely to be a conservative estimate. The apparent trend may not be substantiated. Summarized below are the percentages of

the total number of baccalaureate and first professional degree graduates represented by the graduates who have completed teacher education programs, biennially since 1950.

| Year | Teacher education graduates as percent of total bachelor's and first professional degree class | | |
|--------------------------|--|------------------|-------|
| | Elementary school | Secondary school | Total |
| 1950 | 6.6% | 20.1% | 26.7% |
| 1952 | 11.4 | 18.6 | 30.0 |
| 1954 | 12.6 | 16.8 | 29.4 |
| 1956 | 13.2 | 18.3 | 31.5 |
| 1958 | 12.5 | 19.0 | 31.5 |
| 1960 | 13.4 | 19.8 | 33.2 |
| 1962 | 13.8 | 20.2 | 34.1 |
| 1964 | 14.5 | 20.4 | 34.9 |
| 1965 | 14.8 | 21.4 | 36.2 |
| 1966* | 14.1 | 22.2 | 36.2 |
| 1967* ^a | 14.3 | 23.6 | 37.9 |
| 1968* | 13.3 | 21.0 | 34.3 |
| 1969 est.* | 13.8 | 21.7 | 35.5 |
| 1970 est.* | 14.7 | 24.5 | 39.2 |

*Persons completing preparation to teach specific subjects are grouped within high-school category as in earlier studies of this series. Total does not include the graduates prepared to enter supporting ungraded positions.
^a/ A few institutions in two states did not respond in 1968.

Supply of Prospective Beginning Teachers by State

Tables 1 and 2 summarize the new supply of prospective teachers by assignment level, sex, degree, and secondary-school subject. The conditions in each state are summarized in Tables 4, 5, and 6, showing the number of prospective teachers completing their preparation in 1968 and 1969, grouped by sex, degree, and the instructional level for which they have been prepared. (Complete summaries of information reported by states are given in Table A in the Appendix.) As may be expected from differences in population, there are wide differences among the states in the numbers of persons being prepared for teaching.

Table 4 shows that changes in the total numbers prepared to teach in 1970 range from a reduction of 236 in Minnesota to an increase of 3,743 in Michigan.

The number of teacher education graduates by degree level was requested for the fourth time in the present study. Comparison among the states in the numbers completing preparation at

TABLE 4. -- COLLEGE STUDENTS RECEIVING DEGREES AND PREPARATION TO TEACH IN
ELEMENTARY AND SECONDARY SCHOOLS, 1970 AND 1969, BY STATE

| STATE 1 | BACHELOR'S AND MASTER'S COMBINED | | | |
|----------------------------|----------------------------------|------------------|-----------------|---------------------|
| | TOTAL, 1970 2 | TOTAL, 1969 3 | NET CHANGE 4 | PERCENT CHANGE 5 |
| ALABAMA | 4,618 | 4,345 | + 273 | + 6.3 |
| ALASKA | 148 | 110 | + 38 | +34.5 |
| ARIZONA | 3,467 | 3,080 | + 387 | +12.6 |
| ARKANSAS | 3,444 | 3,294 | + 150 | + 4.6 |
| CALIFORNIA | 13,734 | 12,596 | + 1,138 | + 9.0 |
| COLORADO | 3,951 | 4,182 | - 231 | - 5.5 |
| CONNECTICUT | 4,143 | 3,572 | + 571 | +16.0 |
| DELAWARE | 436 | 342 | + 94 | +27.5 |
| DISTRICT OF COLUMBIA | 900 | 774 | + 126 | +16.3 |
| FLORIDA | 6,470 | 5,797 | + 673 | +11.6 |
| GEORGIA | 4,723 | 4,523 | + 200 | + 4.4 |
| HAWAII | 1,040 | 796 | + 244 | +30.7 |
| IDAHO | 1,155 | 1,145 | + 10 | + .9 |
| ILLINOIS | 14,471 | 12,279 | + 2,192 | +17.9 |
| INDIANA | 8,333 | 7,709 | + 624 | + 8.1 |
| IOWA | 5,733 | 5,779 | - 46 | - .8 |
| KANSAS | 4,730 | 4,748 | - 18 | - .4 |
| KENTUCKY | 6,118 | 5,901 | + 217 | + 3.7 |
| LOUISIANA | 4,910 | 4,152 | + 758 | +18.3 |
| MAINE | 1,283 | 1,014 | + 269 | +26.5 |
| MARYLAND | 3,740 | 3,346 | + 394 | +11.8 |
| MASSACHUSETTS | 8,645 | 7,754 | + 891 | +11.5 |
| MICHIGAN | 14,816 | 11,073 | + 3,743 | +33.8 |
| MINNESOTA | 6,932 | 7,168 | - 236 | - 3.3 |
| MISSISSIPPI | 5,034 | 4,119 | + 915 | +22.2 |
| MISSOURI | 7,075 | 6,259 | + 816 | +13.0 |
| MONTANA | 1,667 | 1,596 | + 71 | + 4.4 |
| NEBRASKA | 4,349 | 4,011 | + 338 | + 8.4 |
| NEVADA | 402 | 383 | + 19 | + 5.0 |
| NEW HAMPSHIRE | 1,190 | 1,099 | + 91 | + 8.3 |
| NEW JERSEY | 7,421 | 6,861 | + 560 | + 8.2 |
| NEW MEXICO | 906 | 828 | + 78 | + 9.4 |
| NEW YORK | 23,282 | 21,472 | + 1,810 | + 8.4 |
| NORTH CAROLINA | 7,107 | 6,602 | + 505 | + 7.6 |
| NORTH DAKOTA | 1,987 | 1,859 | + 128 | + 6.9 |
| OHIO | 14,567 | 14,181 | + 386 | + 2.7 |
| OKLAHOMA | 4,754 | 4,915 | - 161 | - 3.3 |
| OREGON | 3,982 | 3,364 | + 618 | +18.4 |
| PENNSYLVANIA | 16,587 | 15,884 | + 703 | + 4.4 |
| RHODE ISLAND | 1,132 | 1,059 | + 73 | + 6.9 |
| SOUTH CAROLINA | 2,543 | 2,554 | - 11 | - .4 |
| SOUTH DAKOTA | 2,592 | 2,241 | + 351 | +15.7 |
| TENNESSEE | 6,247 | 5,792 | + 455 | + 7.9 |
| TEXAS | 16,158 | 13,842 | + 2,316 | +16.7 |
| UTAH | 2,908 | 2,709 | + 199 | + 7.3 |
| VERMONT | 631 | 581 | + 50 | + 8.6 |
| VIRGINIA | 4,200 | 3,947 | + 253 | + 6.4 |
| WASHINGTON | 6,500 | 4,837 | + 1,663 | +34.4 |
| WEST VIRGINIA | 3,304 | 2,886 | + 418 | +14.5 |
| WISCONSIN | 7,239 | 6,631 | + 608 | + 9.2 |
| WYOMING | 488 | 381 | + 107 | +28.1 |
| TOTAL | 282,192 | 256,372 | +25,820 | +10.1 |

either academic level, therefore, should be interpreted with caution because the states differ in the availability of this information.

Table 5 shows that at the elementary-school level the change in the number of persons completing preparation with a bachelor's degree is within the range of plus or minus 300 in all but 7 states. Increases of more than 300 bachelor's degree graduates are estimated in Illinois,

Michigan, New York, Texas, and Washington. Decreases of more than 300 graduates are estimated in Minnesota and Ohio. With the exception of California and New York, changes in the numbers completing their preparation with a master's degree are within plus or minus 200.

At the secondary-school level (Table 6) the changes in the numbers of persons completing preparation with a bachelor's degree range from

TABLE 5. -- COLLEGE STUDENTS RECEIVING DEGREES AND PREPARATION TO TEACH IN THE ELEMENTARY SCHOOL, 1970 AND 1969, BY STATE

| STATE | BACHELOR'S DEGREE | | | | | | | MASTER'S DEGREE | | | | | | |
|-------------------------------|--------------------------|----------------------------|----------------------------|----------------|-----------------------|------------------------------|--------------------------|----------------------------|----------------------------|----------------|-----------------------|------------------------------|--|--|
| | GRADUATES OF 1970 MEN | GRADUATES OF 1970 WOMEN | GRADUATES OF 1970 TOTAL | TOTAL, 1969 | 1969 NET CHANGE | TO 1970 PERCENT CHANGE | GRADUATES OF 1970 MEN | GRADUATES OF 1970 WOMEN | GRADUATES OF 1970 TOTAL | TOTAL, 1969 | 1969 NET CHANGE | TO 1970 PERCENT CHANGE | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | | |
| ALABAMA | 48 | 1,217 | 1,265 | 1,266 | - | 1 | 24 | 138 | 162 | 179 | - | 17 | | |
| ALASKA | 15 | 44 | 59 | 48 | + | 11 | 8 | 16 | 24 | 20 | + | 4 | | |
| ARIZONA | 173 | 1,105 | 1,278 | 1,096 | + | 182 | 134 | 374 | 508 | 490 | + | 18 | | |
| ARKANSAS | 91 | 957 | 1,048 | 972 | + | 76 | 7 | 55 | 62 | 58 | + | 4 | | |
| CALIFORNIA | 368 | 2,397 | 2,765 | 2,947 | - | 182 | 592 | 3,952 | 4,544 | 3,735 | + | 809 | | |
| COLORADO | 115 | 1,131 | 1,246 | 1,078 | + | 168 | 26 | 195 | 221 | 208 | + | 13 | | |
| CONNECTICUT | 204 | 1,359 | 1,563 | 1,408 | + | 155 | 99 | 386 | 485 | 362 | + | 123 | | |
| DELAWARE | 16 | 144 | 160 | 153 | + | 7 | ... | ... | ... | ... | ... | ... | | |
| DISTRICT OF COLUMBIA | 13 | 299 | 312 | 296 | + | 16 | 3 | 62 | 65 | 36 | + | 29 | | |
| FLORIDA | 221 | 2,269 | 2,490 | 2,378 | + | 112 | 34 | 101 | 135 | 103 | + | 32 | | |
| GEORGIA | 115 | 1,585 | 1,700 | 1,650 | + | 50 | 16 | 112 | 128 | 241 | - | 113 | | |
| HAWAII | 21 | 364 | 385 | 338 | + | 47 | 11 | 219 | 230 | 157 | + | 73 | | |
| IDAHO | 53 | 368 | 421 | 430 | - | 9 | 39 | 29 | 68 | 67 | + | 1 | | |
| ILLINOIS | 434 | 4,684 | 5,118 | 4,566 | + | 552 | 129 | 267 | 396 | 300 | + | 96 | | |
| INDIANA | 255 | 2,400 | 2,655 | 2,546 | + | 109 | 1 | 18 | 191 | 9 | + | 182 | | |
| IOWA | 157 | 1,982 | 2,139 | 2,212 | - | 73 | ... | ... | ... | ... | ... | ... | | |
| KANSAS | 158 | 1,692 | 1,850 | 1,852 | - | 2 | 5 | 56 | 61 | 114 | - | 53 | | |
| KENTUCKY | 255 | 1,783 | 2,038 | 2,087 | - | 49 | 23 | 62 | 85 | 37 | + | 48 | | |
| LOUISIANA | 143 | 1,775 | 1,918 | 1,694 | + | 224 | 17 | 73 | 90 | 64 | + | 26 | | |
| MAINE | 97 | 426 | 523 | 510 | + | 13 | ... | ... | ... | ... | ... | ... | | |
| MARYLAND | 161 | 1,518 | 1,679 | 1,528 | + | 151 | 41 | 75 | 116 | 84 | + | 32 | | |
| MASSACHUSETTS .. | 409 | 2,774 | 3,650 | 3,522 | + | 128 | 149 | 281 | 430 | 311 | + | 119 | | |
| MICHIGAN | 521 | 5,093 | 5,614 | 4,029 | + | 1,585 | 83 | 121 | 204 | 197 | + | 7 | | |
| MINNESOTA | 344 | 2,517 | 2,861 | 3,401 | - | 540 | 5 | 1 | 6 | 11 | - | 5 | | |
| MISSISSIPPI | 160 | 1,414 | 1,600 | 1,357 | + | 243 | 20 | 120 | 140 | 49 | + | 91 | | |
| MISSOURI | 179 | 2,396 | 2,575 | 2,444 | + | 131 | 4 | 20 | 24 | 23 | + | 1 | | |
| MONTANA | 74 | 570 | 644 | 615 | + | 29 | 7 | 4 | 11 | 19 | - | 8 | | |
| NEBRASKA | 233 | 1,491 | 1,724 | 1,687 | + | 37 | 20 | 18 | 38 | 31 | + | 7 | | |
| NEVADA | 20 | 121 | 141 | 138 | + | 3 | 5 | 27 | 32 | 32 | ... | ... | | |
| NEW HAMPSHIRE .. | 26 | 428 | 454 | 440 | + | 14 | 8 | 9 | 17 | 13 | + | 4 | | |
| NEW JERSEY | 361 | 2,659 | 3,020 | 2,935 | + | 85 | 11 | 32 | 43 | 39 | + | 4 | | |
| NEW MEXICO | 45 | 279 | 324 | 282 | + | 42 | 9 | 16 | 25 | 23 | + | 2 | | |
| NEW YORK | 876 | 8,390 | 9,268 | 8,623 | + | 645 | 298 | 1,834 | 2,132 | 1,899 | + | 233 | | |
| NORTH CAROLINA .. | 113 | 2,087 | 2,200 | 2,099 | + | 101 | 32 | 124 | 156 | 170 | - | 14 | | |
| NORTH DAKOTA .. | 58 | 518 | 576 | 610 | - | 34 | ... | ... | ... | ... | ... | ... | | |
| OHIO | 576 | 5,075 | 5,651 | 6,068 | - | 417 | 39 | 93 | 132 | 172 | - | 40 | | |
| OKLAHOMA | 151 | 1,375 | 1,526 | 1,695 | - | 169 | 29 | 193 | 222 | 204 | + | 18 | | |
| OREGON | 237 | 1,419 | 1,656 | 1,490 | + | 166 | 27 | 45 | 72 | 38 | + | 34 | | |
| PENNSYLVANIA .. | 910 | 5,416 | 6,326 | 6,307 | + | 19 | 28 | 90 | 118 | 98 | + | 20 | | |
| RHODE ISLAND .. | 9 | 159 | 472 | 473 | - | 1 | 4 | 10 | 14 | 19 | - | 5 | | |
| SOUTH CAROLINA .. | 33 | 984 | 1,017 | 908 | + | 109 | 14 | 11 | 25 | 14 | + | 11 | | |
| SOUTH DAKOTA .. | 55 | 788 | 843 | 808 | + | 35 | 2 | 16 | 18 | 12 | + | 6 | | |
| TENNESSEE | 141 | 1,736 | 1,877 | 1,796 | + | 81 | 18 | 23 | 41 | 35 | + | 6 | | |
| TEXAS | 612 | 5,680 | 6,292 | 5,939 | + | 353 | 179 | 375 | 554 | 501 | + | 53 | | |
| UTAH | 110 | 945 | 1,055 | 1,082 | - | 27 | 18 | 30 | 48 | 18 | + | 30 | | |
| VERMONT | 44 | 254 | 298 | 281 | + | 17 | 1 | 1 | 2 | ... | + | 2 | | |
| VIRGINIA | 57 | 1,434 | 1,491 | 1,475 | + | 16 | ... | 22 | 22 | 4 | + | 18 | | |
| WASHINGTON | 409 | 2,077 | 2,486 | 2,041 | + | 445 | ... | ... | ... | ... | ... | ... | | |
| WEST VIRGINIA .. | 150 | 885 | 1,035 | 899 | + | 136 | ... | ... | ... | ... | ... | ... | | |
| WISCONSIN | 354 | 2,373 | 2,727 | 2,667 | + | 60 | 35 | 82 | 117 | 128 | - | 11 | | |
| WYOMING | 22 | 138 | 160 | 129 | + | 31 | ... | 1 | 1 | 1 | ... | ... | | |
| TOTAL | 10,430 | 90,974 | 102,175 | 97,295 | + | 4,880 | 2,254 | 9,789 | 12,215 | 10,325 | + | 1,890 | | |

TABLE 6. -- COLLEGE STUDENTS RECEIVING DEGREES AND PREPARATION TO TEACH IN THE SECONDARY SCHOOL, 1970 AND 1969, BY STATE

| STATE | BACHELOR'S DEGREE | | | | | | | MASTER'S DEGREE | | | | | | |
|----------------------|--------------------------|----------------------------|---------------|----------------|-----------------------|------------------------------|--------|--------------------------|----------------------------|---------------|----------------|-----------------------|------------------------------|--------|
| | GRADUATES OF 1970 MEN | GRADUATES OF 1970 WOMEN | TOTAL 1970 | TOTAL, 1969 | 1969 NET CHANGE | TO 1970 PERCENT CHANGE | | GRADUATES OF 1970 MEN | GRADUATES OF 1970 WOMEN | TOTAL 1970 | TOTAL, 1969 | 1969 NET CHANGE | TO 1970 PERCENT CHANGE | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | | 8 | 9 | 10 | 11 | 12 | 13 | |
| ALABAMA | 1,106 | 1,823 | 2,929 | 2,623 | + | 306 | + 11.7 | 138 | 124 | 262 | 277 | - | 15 | - 5.4 |
| ALASKA | 25 | 36 | 61 | 42 | + | 19 | + 45.2 | 1 | 3 | 4 | ... | + | 4 | ... |
| ARIZONA | 590 | 643 | 1,233 | 1,086 | + | 147 | + 13.5 | 274 | 174 | 448 | 408 | + | 40 | + 9.8 |
| ARKANSAS | 904 | 1,206 | 2,110 | 2,065 | + | 45 | + 2.2 | 117 | 107 | 224 | 199 | + | 25 | + 12.6 |
| CALIFORNIA | 434 | 489 | 923 | 687 | + | 236 | + 34.4 | 2,622 | 2,880 | 5,502 | 5,227 | + | 275 | + 5.3 |
| COLORADO | 1,029 | 1,152 | 2,181 | 2,573 | - | 392 | - 15.2 | 182 | 121 | 303 | 323 | + | 20 | + 6.2 |
| CONNECTICUT | 727 | 853 | 1,580 | 1,336 | + | 244 | + 18.3 | 264 | 251 | 515 | 466 | + | 49 | + 10.5 |
| DELAWARE | 86 | 190 | 276 | 187 | + | 89 | + 47.6 | ... | ... | ... | 2 | - | 2 | -100.0 |
| DISTRICT OF COLUMBIA | 113 | 293 | 406 | 329 | + | 77 | + 23.4 | 51 | 66 | 117 | 113 | + | 4 | + 3.5 |
| FLORIDA | 1,640 | 2,025 | 3,665 | 3,186 | + | 479 | + 15.0 | 98 | 82 | 180 | 130 | + | 50 | + 38.5 |
| GEORGIA | 912 | 1,708 | 2,620 | 2,315 | + | 305 | + 13.2 | 133 | 142 | 275 | 317 | - | 42 | - 13.2 |
| HAWAII | 113 | 186 | 299 | 228 | + | 71 | + 31.1 | 40 | 86 | 126 | 73 | + | 53 | + 72.6 |
| IDAHO | 382 | 249 | 631 | 606 | + | 25 | + 4.1 | 19 | 16 | 35 | 42 | - | 7 | - 16.7 |
| ILLINOIS | 3,859 | 4,464 | 8,323 | 6,967 | + | 1,356 | + 19.5 | 333 | 301 | 634 | 446 | + | 188 | + 42.2 |
| INDIANA | 2,513 | 2,806 | 5,319 | 5,147 | + | 172 | + 3.3 | 4 | 2 | 168 | 7 | + | 161 | +300.0 |
| IOWA | 1,719 | 1,875 | 3,594 | 3,567 | + | 27 | + .8 | ... | ... | ... | ... | ... | ... | ... |
| KANSAS | 1,252 | 1,437 | 2,689 | 2,531 | + | 158 | + 6.2 | 92 | 38 | 130 | 251 | - | 121 | - 48.2 |
| KENTUCKY | 1,937 | 1,954 | 3,891 | 3,739 | + | 152 | + 4.1 | 69 | 35 | 104 | 38 | + | 66 | +173.7 |
| LOUISIANA | 974 | 1,688 | 2,662 | 2,250 | + | 412 | + 18.3 | 68 | 172 | 240 | 144 | + | 96 | + 66.7 |
| MAINE | 375 | 385 | 760 | 504 | + | 256 | + 50.8 | ... | ... | ... | ... | ... | ... | ... |
| MARYLAND | 728 | 1,100 | 1,828 | 1,577 | + | 251 | + 15.9 | 48 | 69 | 117 | 157 | - | 40 | - 25.5 |
| MASSACHUSETTS | 1,496 | 1,915 | 3,411 | 3,378 | + | 439 | + 13.0 | 300 | 448 | 748 | 543 | + | 205 | + 37.8 |
| MICHIGAN | 3,860 | 4,651 | 8,511 | 6,462 | + | 2,049 | + 31.7 | 294 | 193 | 487 | 585 | + | 102 | + 26.5 |
| MINNESOTA | 2,076 | 1,855 | 3,931 | 3,633 | + | 298 | + 8.2 | 88 | 46 | 134 | 123 | + | 11 | + 8.9 |
| MISSISSIPPI | 1,286 | 1,480 | 2,766 | 2,564 | + | 202 | + 7.9 | 242 | 286 | 528 | 149 | + | 379 | +254.4 |
| MISSOURI | 2,083 | 2,345 | 4,428 | 3,740 | + | 688 | + 18.4 | 16 | 32 | 48 | 52 | - | 4 | - 7.7 |
| MONTANA | 536 | 476 | 1,012 | 932 | + | 80 | + 8.6 | ... | ... | ... | 30 | - | 30 | -100.0 |
| NEBRASKA | 1,272 | 1,220 | 2,492 | 2,191 | + | 301 | + 13.7 | 73 | 22 | 95 | 102 | - | 7 | - 6.9 |
| NEVADA | 110 | 107 | 217 | 194 | + | 23 | + 11.9 | 5 | 7 | 12 | 19 | - | 7 | - 36.8 |
| NEW HAMPSHIRE | 304 | 398 | 702 | 633 | + | 69 | + 10.9 | 8 | 9 | 17 | 13 | + | 4 | + 30.8 |
| NEW JERSEY | 1,592 | 2,144 | 3,736 | 3,423 | + | 313 | + 9.1 | 337 | 285 | 622 | 464 | + | 158 | + 34.1 |
| NEW MEXICO | 296 | 236 | 532 | 497 | + | 35 | + 7.0 | 21 | 4 | 25 | 26 | - | 1 | - 3.8 |
| NEW YORK | 3,697 | 5,566 | 9,263 | 8,370 | + | 893 | + 10.7 | 1,074 | 1,445 | 2,619 | 2,580 | + | 39 | + 1.5 |
| NORTH CAROLINA | 1,683 | 2,648 | 4,331 | 3,933 | + | 398 | + 10.1 | 204 | 216 | 420 | 400 | + | 20 | + 5.0 |
| NORTH DAKOTA | 773 | 638 | 1,411 | 1,249 | + | 162 | + 13.0 | ... | ... | ... | ... | ... | ... | ... |
| OHIO | 3,983 | 4,559 | 8,542 | 7,667 | + | 875 | + 11.4 | 157 | 85 | 242 | 274 | - | 32 | - 11.7 |
| OKLAHOMA | 1,260 | 1,322 | 2,582 | 2,667 | - | 85 | - 3.2 | 257 | 167 | 424 | 349 | + | 75 | + 21.5 |
| OREGON | 968 | 1,187 | 2,155 | 1,767 | + | 388 | + 22.0 | 46 | 53 | 99 | 69 | + | 30 | + 43.5 |
| PENNSYLVANIA | 4,705 | 5,081 | 9,786 | 9,240 | + | 546 | + 5.9 | 185 | 172 | 357 | 239 | + | 118 | + 49.4 |
| RHODE ISLAND | 197 | 234 | 591 | 519 | + | 72 | + 13.9 | 6 | 49 | 55 | 48 | + | 7 | + 14.6 |
| SOUTH CAROLINA | 431 | 987 | 1,418 | 1,573 | - | 155 | - 9.9 | 32 | 51 | 83 | 59 | + | 24 | + 40.7 |
| SOUTH DAKOTA | 955 | 727 | 1,682 | 1,391 | + | 291 | + 20.9 | 29 | 20 | 49 | 30 | + | 19 | + 63.3 |
| TENNESSEE | 1,863 | 2,314 | 4,177 | 3,813 | + | 364 | + 9.5 | 93 | 59 | 152 | 148 | + | 4 | + 2.7 |
| TEXAS | 2,990 | 5,166 | 8,156 | 6,413 | + | 1,743 | + 27.2 | 622 | 534 | 1,156 | 989 | + | 167 | + 16.9 |
| UTAH | 813 | 948 | 1,761 | 1,517 | + | 244 | + 16.1 | 33 | 11 | 44 | 92 | - | 48 | - 52.2 |
| VERMONT | 192 | 115 | 307 | 290 | + | 17 | + 5.9 | 18 | 6 | 24 | 10 | + | 14 | +140.0 |
| VIRGINIA | 751 | 1,833 | 2,584 | 2,384 | + | 200 | + 8.4 | 76 | 27 | 103 | 84 | + | 19 | + 22.6 |
| WASHINGTON | 1,810 | 2,204 | 4,014 | 2,796 | + | 1,218 | + 43.6 | ... | ... | ... | ... | ... | ... | ... |
| WEST VIRGINIA | 1,033 | 1,236 | 2,269 | 1,987 | + | 282 | + 14.2 | ... | ... | ... | ... | ... | ... | ... |
| WISCONSIN | 1,790 | 2,142 | 3,932 | 3,405 | + | 527 | + 15.5 | 290 | 173 | 463 | 431 | + | 32 | + 7.4 |
| WYOMING | 161 | 154 | 315 | 233 | + | 82 | + 35.2 | 6 | 6 | 12 | 18 | - | 6 | - 33.3 |
| TOTAL | 66,384 | 82,454 | 149,400 | 132,406 | + | 16,994 | + 12.8 | 9,065 | 9,075 | 18,402 | 16,346 | + | 2,056 | + 12.6 |

a decrease of 392 to an increase of 2,049. Increases of more than 500 are reported by Illinois, Michigan, Missouri, New York, Ohio, Pennsylvania, Texas, Washington, and Wisconsin. Changes in the number of prospective secondary-school teachers receiving the master's degree range from a decrease of 121 to an increase of 379 with the numbers ranging between plus or minus 100 in 36 of the 46 political subdivisions reporting.

Table 13 shows that 50.7 percent of the new teachers were assigned to elementary-school classrooms, as reported by 23 states for 1969-70. On the assumption that this distribution of new teachers is representative of the national pattern, six states--Alabama, Arkansas, North Dakota, South Dakota, Tennessee, West Virginia, and Wyoming--show a decided imbalance: The number of prospective secondary-school teachers

being graduated is twice as large as the number of potential elementary-school teachers.

The states differ in rate of population growth, proportion of school-age population enrolled in public schools, growth in school enrollments, current status of teacher supply, conditions influencing the morale of teachers, and population mobility. These differences, along with the differences in the percentage of the resident population represented in higher education enrollments, reduce the validity of judgments about the adequacy of the supply of beginning teachers among the states drawn from information in Tables 5 and 6.

Occupation of Teacher Education Graduates in 1969

Typically many persons completing teacher education programs do not enter teaching during the subsequent year, even in a time of shortage. A sizable number may be expected either to enter other occupations permanently or to defer their entry into teaching.

Follow-up information about teacher education graduates, gathered by a large proportion of the institutions of higher education, has been part of the annual survey of public-school teacher supply and demand for several years. This year 45 states forwarded follow-up information to the NEA Research Division. Information is not available from Alaska, California, District of Columbia, Indiana, Kentucky, and Tennessee. Information for less than 85 percent of the teacher education graduates of 1969 is available for Colorado, Illinois, Massachusetts, Minnesota (elementary), New York (secondary), Ohio (secondary), Oklahoma, and Rhode Island (secondary). As a whole, follow-up information has been reported this year for 82.0 percent of the prospective elementary-school teachers and for 80.7 percent of the prospective secondary-school teachers who were graduated in 1969.

The occupational status of the teacher education graduates of 1969 is shown in Table 7. Information in column 11 shows that the status of 16.7 percent of the teacher education graduates is not known by these reporting institutions. This condition suggests that the percentage entries in at least one of the other columns are slightly lower than would be observed if follow-up information were available for all graduates.

Percent Entering Teaching by November 1969

Table 7 shows that not all of the teacher education graduates become teachers immediately following completion of their training. The figures below indicate the extent to which the

prospective teachers for whom follow-up information is available have actually entered teaching positions each year since 1953:

| Year | Percent of eligible graduates having follow-up information reported | Among eligible graduates in institutions reporting follow-up status | | | | Percent whose employment status is not known |
|------|---|---|------------------|-------------|---------------------------------|--|
| | | Percent who entered teaching in | | | Percent who entered teaching in | |
| | | Elementary school | Secondary school | All schools | | |
| 1953 | 24.9% | 77.1% | 53.3% | 64.4% | 23.2% | |
| 1954 | 47.9 | 78.9 | 55.7 | 65.8 | 12.0 | |
| 1955 | 66.8 | 81.6 | 62.9 | 71.3 | 8.0 | |
| 1956 | 71.9 | 80.8 | 63.2 | 70.7 | 8.9 | |
| 1957 | 78.8 | 82.9 | 65.5 | 72.7 | 7.7 | |
| 1958 | 78.1 | 83.3 | 67.8 | 73.7 | 7.3 | |
| 1959 | 72.9 | 82.3 | 66.4 | 72.5 | 10.1 | |
| 1960 | 78.8 | 82.2 | 68.1 | 73.6 | 9.5 | |
| 1961 | 88.3 | 83.2 | 68.4 | 74.3 | 9.1 | |
| 1962 | 87.9 | 82.3 | 69.2 | 74.4 | 9.4 | |
| 1963 | 86.5 | 82.0 | 67.9 | 73.8 | 10.7 | |
| 1964 | 79.4 | 81.2 | 67.0 | 72.7 | 11.6 | |
| 1965 | 93.6 | 81.2 | 66.0 | 72.2 | 11.5 | |
| 1966 | 84.0 | 80.8 | 66.6 | 72.1* | 12.7 | |
| 1967 | 83.8 | 78.0 | 64.3 | 70.0* | 15.5 | |
| 1968 | 79.2 | 78.5 | 64.6 | 70.5* | 14.8* | |
| 1969 | 81.0 | 74.1 | 62.3 | 67.3* | 16.6* | |

*Includes special education but excludes other ungraded positions.

This review shows that over the past decade less than three-fourths of the prospective teachers have entered immediate employment as teachers. In broad terms, last year 3 persons in 4 prepared for elementary-school teaching and about 3 persons in 5 prepared for high-school teaching actually accepted teaching positions near the beginning of the school year.

The proportion of potential teachers who entered teaching increased with the increase in demand between 1955 and 1962. Other indications of trends in the entry rates may not be valid in view of the variations in the proportion of all eligible graduates having follow-up information reported and in the percents of eligible graduates whose employment status is not known. The data in this summary show that the most recent proportions provide a very conservative minimum estimate of the net or effective supply of beginning teachers available for employment in 1970-71.

TABLE 7.--OCCUPATION ON NOVEMBER 1, 1969, OF PERSONS WHO WERE GRADUATED BETWEEN SEPTEMBER 1, 1968, AND AUGUST 31, 1969, WITH QUALIFICATIONS FOR STANDARD TEACHING CERTIFICATES

| FIELD OF PREPARATION | 1 | PERCENT TEACHING IN STATE OF | | | | OTHERWISE GAIN-FULLY EMPLOYED | PERCENT NOT TEACHING | | | | SEEK-ING NON TEACH-ING JOB | NO IN-FORMA-TION | TOTAL PER-CENT | NUMBER OF GRADU-ATES |
|----------------------------------|-------|------------------------------|------|------|------|-------------------------------|----------------------|-----|------|-----|----------------------------|------------------|----------------|----------------------|
| | | 2 | 3 | 4 | 5 | | 6 | 7 | 8 | 9 | | | | |
| ELEMENTARY-SCHOOL TOTAL . . . | MEN | 55.9 | 16.6 | 72.4 | 3.6 | 3.2 | 3.0 | 0.0 | 1.6 | 0.3 | 15.8 | 100.0 | 9,269 | |
| | WOMEN | 59.6 | 14.6 | 74.3 | 2.2 | 2.7 | 0.0 | 3.7 | 2.2 | 0.2 | 14.6 | 100.0 | 79,001 | |
| REGULAR INSTRUCTION . . . | BOTH | 56.7 | 14.8 | 74.5 | 2.9 | 2.9 | 0.0 | 3.3 | 2.1 | 0.3 | 14.5 | 100.0 | 84,837 | |
| | MEN | 60.0 | 14.5 | 74.6 | 2.2 | 2.7 | 0.0 | 3.7 | 2.1 | 0.2 | 14.4 | 100.0 | 76,661 | |
| ART | BOTH | 59.7 | 14.8 | 74.5 | 2.3 | 2.7 | 0.3 | 3.3 | 2.1 | 0.3 | 14.5 | 100.0 | 84,837 | |
| | MEN | 42.0 | 11.6 | 53.6 | 6.8 | 3.4 | 1.0 | 0.0 | 1.0 | 0.0 | 34.3 | 100.0 | 207 | |
| FOREIGN LANGUAGE | WOMEN | 46.0 | 12.3 | 58.3 | 4.1 | 3.5 | 1.1 | 2.3 | 3.9 | 1.1 | 27.7 | 100.0 | 853 | |
| | BOTH | 45.2 | 12.2 | 57.4 | 4.6 | 3.5 | 0.3 | 1.9 | 3.3 | 0.1 | 29.0 | 100.0 | 1,060 | |
| MUSIC | MEN | 40.0 | 40.0 | 80.0 | 0.0 | 6.7 | 0.0 | 6.7 | 0.0 | 6.7 | 6.7 | 100.0 | 15 | |
| | WOMEN | 56.8 | 19.9 | 76.7 | 2.3 | 4.0 | 0.0 | 2.3 | 2.8 | 0.0 | 11.9 | 100.0 | 176 | |
| PHY. AND HEALTH EDUC. | BOTH | 55.5 | 21.5 | 77.0 | 2.1 | 4.2 | 0.0 | 2.1 | 3.1 | 0.0 | 11.5 | 100.0 | 191 | |
| | MEN | 44.4 | 11.4 | 55.8 | 2.6 | 5.8 | 8.5 | 0.0 | 3.5 | 0.6 | 23.1 | 100.0 | 342 | |
| SECONDARY SCHOOL | WOMEN | 53.0 | 15.6 | 68.6 | 2.5 | 4.3 | 0.2 | 4.3 | 3.1 | 0.1 | 16.7 | 100.0 | 806 | |
| | BOTH | 50.4 | 14.4 | 64.8 | 2.5 | 4.8 | 2.7 | 3.0 | 3.2 | 0.8 | 18.6 | 100.0 | 1,148 | |
| AGRICULTURE | MEN | 55.4 | 12.3 | 67.7 | 1.9 | 3.2 | 3.4 | 0.0 | 1.7 | 0.8 | 21.4 | 100.0 | 529 | |
| | WOMEN | 57.4 | 16.0 | 73.5 | 1.4 | 4.0 | 0.0 | 1.2 | 2.6 | 0.4 | 17.0 | 100.0 | 505 | |
| ART | BOTH | 56.4 | 14.1 | 70.5 | 1.6 | 3.6 | 1.7 | 0.6 | 2.1 | 0.6 | 19.2 | 100.0 | 1,034 | |
| | MEN | 47.9 | 7.5 | 55.5 | 9.8 | 6.1 | 8.1 | 0.0 | 0.5 | 0.3 | 19.7 | 100.0 | 1,275 | |
| BUSINESS EDUCATION | WOMEN | 21.7 | 0.0 | 21.7 | 1.7 | 0.0 | 0.0 | 6.1 | 13.9 | 0.0 | 56.5 | 100.0 | 115 | |
| | BOTH | 45.8 | 6.9 | 52.7 | 9.1 | 5.6 | 7.4 | 0.5 | 1.7 | 0.3 | 22.7 | 100.0 | 1,390 | |
| ENGLISH | MEN | 53.3 | 12.8 | 66.1 | 6.1 | 5.9 | 4.6 | 0.0 | 2.0 | 0.1 | 15.1 | 100.0 | 1,341 | |
| | WOMEN | 50.2 | 11.9 | 62.0 | 5.1 | 4.9 | 1.1 | 4.6 | 5.1 | 0.2 | 17.9 | 100.0 | 3,451 | |
| DISTRIBUTIVE EDUCATION | BOTH | 51.0 | 12.1 | 63.2 | 5.4 | 5.2 | 1.3 | 3.3 | 4.3 | 0.2 | 17.1 | 100.0 | 4,792 | |
| | MEN | 48.7 | 11.5 | 60.2 | 12.0 | 3.7 | 5.4 | 0.0 | 1.7 | 0.5 | 16.5 | 100.0 | 2,281 | |
| JOURNALISM | WOMEN | 47.3 | 10.7 | 58.0 | 12.0 | 2.8 | 1.1 | 4.7 | 2.6 | 0.6 | 19.2 | 100.0 | 5,655 | |
| | BOTH | 47.7 | 10.9 | 58.6 | 12.0 | 3.1 | 1.6 | 3.4 | 2.4 | 0.6 | 18.4 | 100.0 | 7,936 | |
| SPEECH AND DRAMATIC ARTS | MEN | 50.0 | 9.9 | 71.9 | 9.6 | 3.2 | 3.2 | 0.0 | 0.3 | 0.3 | 11.6 | 100.0 | 345 | |
| | WOMEN | 59.3 | 9.8 | 69.1 | 8.7 | 3.6 | 2.5 | 0.9 | 0.2 | 0.2 | 14.8 | 100.0 | 447 | |
| HOME ECONOMICS | MEN | 55.4 | 12.6 | 67.9 | 4.0 | 6.5 | 4.2 | 0.0 | 2.3 | 0.4 | 14.6 | 100.0 | 4,262 | |
| | WOMEN | 50.9 | 13.6 | 64.5 | 4.6 | 6.0 | 1.1 | 3.9 | 3.3 | 0.4 | 17.1 | 100.0 | 15,714 | |
| INDUSTRIAL ARTS | BOTH | 51.8 | 13.4 | 65.2 | 4.5 | 6.1 | 1.0 | 3.1 | 3.1 | 0.4 | 16.6 | 100.0 | 19,976 | |
| | MEN | 39.8 | 4.8 | 44.6 | 16.9 | 6.0 | 4.8 | 0.0 | 12.0 | 0.0 | 15.7 | 100.0 | 83 | |
| FOREIGN LANGUAGE | WOMEN | 34.7 | 5.7 | 40.4 | 6.9 | 8.2 | 0.0 | 6.9 | 8.6 | 1.6 | 27.3 | 100.0 | 245 | |
| | BOTH | 36.0 | 5.5 | 41.5 | 9.5 | 7.6 | 1.2 | 5.2 | 9.5 | 1.2 | 24.4 | 100.0 | 328 | |
| JUNIOR H. S. SUBJECTS | MEN | 44.9 | 10.7 | 55.6 | 5.2 | 9.8 | 7.1 | 0.0 | 3.3 | 0.9 | 18.0 | 100.0 | 899 | |
| | WOMEN | 42.7 | 11.5 | 54.2 | 5.5 | 8.9 | 2.2 | 4.1 | 4.1 | 0.5 | 22.4 | 100.0 | 2,181 | |
| PHYSICAL EDUCATION | BOTH | 43.4 | 11.3 | 54.6 | 5.4 | 9.2 | 2.2 | 2.9 | 3.9 | 0.6 | 21.1 | 100.0 | 3,080 | |
| | MEN | 48.6 | 12.6 | 61.2 | 2.8 | 8.0 | 7.7 | 0.0 | 2.8 | 0.3 | 17.2 | 100.0 | 1,437 | |
| SUBJECTS OTHER THAN | WOMEN | 46.6 | 12.8 | 59.4 | 4.8 | 7.6 | 3.3 | 3.5 | 4.8 | 0.6 | 19.5 | 100.0 | 6,418 | |
| | BOTH | 46.9 | 12.8 | 59.7 | 4.5 | 7.6 | 1.7 | 2.9 | 4.0 | 0.5 | 19.1 | 100.0 | 7,875 | |
| TOTAL | MEN | 36.4 | 4.5 | 40.9 | 0.0 | 4.5 | 27.3 | 0.0 | 0.0 | 0.0 | 27.3 | 100.0 | 22 | |
| | WOMEN | 46.3 | 12.9 | 59.2 | 8.6 | 4.5 | 1.1 | 7.2 | 3.4 | 0.6 | 16.3 | 100.0 | 6,217 | |
| GRADUATES | BOTH | 56.2 | 12.9 | 59.2 | 8.6 | 4.5 | 2.2 | 7.2 | 3.3 | 0.6 | 16.4 | 100.0 | 6,239 | |
| | MEN | 56.4 | 15.0 | 71.4 | 5.6 | 4.5 | 5.5 | 0.0 | 0.9 | 0.2 | 12.0 | 100.0 | 3,808 | |
| TOTAL | WOMEN | 10.0 | 3.8 | 13.8 | 3.8 | 0.0 | 0.0 | 5.0 | 3.8 | 0.0 | 73.8 | 100.0 | 80 | |
| | BOTH | 55.4 | 14.8 | 70.2 | 5.3 | 4.4 | 5.3 | 1.1 | 0.9 | 0.2 | 13.3 | 100.0 | 3,888 | |
| TOTAL | MEN | 63.8 | 5.6 | 69.4 | 2.5 | 3.1 | 7.0 | 0.0 | 3.1 | 0.0 | 14.9 | 100.0 | 484 | |
| | WOMEN | 62.8 | 10.2 | 73.0 | 1.9 | 2.9 | 0.4 | 6.1 | 5.9 | 0.4 | 9.4 | 100.0 | 522 | |
| TOTAL | BOTH | 63.3 | 8.0 | 71.3 | 2.2 | 3.0 | 3.6 | 3.2 | 4.6 | 0.2 | 12.0 | 100.0 | 1,006 | |

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 |
|--|------|------|------|------|------|-----|-----|-----|-----|-----|------|-------|---------|
| MATHEMATICS | | | | | | | | | | | | | |
| MEN | 62.4 | 11.1 | 73.5 | 4.4 | 4.6 | 4.7 | 4.7 | 0.0 | 1.3 | -.2 | 11.3 | 100.0 | 4,577 |
| WOMEN | 55.1 | 13.9 | 69.0 | 5.9 | 6.3 | -.2 | 3.5 | 1.6 | 1.6 | -.2 | 13.4 | 100.0 | 4,787 |
| BOTH | 58.7 | 12.5 | 71.2 | 5.1 | 5.5 | 2.4 | 1.8 | 1.5 | 1.5 | -.2 | 12.4 | 100.0 | 9,364 |
| MUSIC | | | | | | | | | | | | | |
| MEN | 55.8 | 14.7 | 70.5 | 2.9 | 7.5 | 5.9 | 2.4 | 1.4 | 1.4 | -.3 | 11.5 | 100.0 | 2,502 |
| WOMEN | 51.8 | 17.5 | 69.3 | 3.6 | 6.0 | -.2 | 4.4 | 2.3 | 2.3 | -.3 | 14.0 | 100.0 | 3,082 |
| BOTH | 53.5 | 16.3 | 69.8 | 3.3 | 6.7 | 2.7 | 2.7 | 1.9 | 1.9 | -.3 | 12.9 | 100.0 | 5,584 |
| MEN | 48.6 | 16.5 | 65.1 | 4.4 | 5.2 | 5.6 | 5.6 | 0.0 | 1.4 | -.1 | 18.1 | 100.0 | 8,128 |
| WOMEN | 50.5 | 18.0 | 68.5 | 5.0 | 4.2 | -.2 | 3.6 | 2.5 | 2.5 | -.2 | 15.9 | 100.0 | 5,864 |
| BOTH | 49.4 | 17.1 | 66.5 | 4.6 | 4.8 | 3.4 | 1.5 | 1.9 | 1.9 | -.1 | 17.2 | 100.0 | 13,992 |
| NAT. AND PHYS. SCIENCES (NOT SPECIFIED) | | | | | | | | | | | | | |
| MEN | 61.3 | 12.3 | 73.6 | 4.4 | 5.5 | 4.7 | 4.7 | 0.0 | 1.1 | -.3 | 10.5 | 100.0 | 641 |
| WOMEN | 54.7 | 14.2 | 68.9 | 5.0 | 6.3 | -.0 | 2.8 | 1.6 | 1.6 | -.0 | 15.4 | 100.0 | 318 |
| BOTH | 59.1 | 12.9 | 72.1 | 4.6 | 5.7 | 3.1 | 3.1 | 1.3 | 1.3 | -.2 | 12.1 | 100.0 | 959 |
| GENERAL NAT. AND PHYS. SCIENCES | | | | | | | | | | | | | |
| MEN | 54.6 | 11.5 | 66.1 | 2.9 | 5.6 | 5.8 | 5.8 | 0.0 | 0.7 | -.3 | 18.6 | 100.0 | 968 |
| WOMEN | 44.1 | 9.1 | 53.2 | 3.6 | 7.3 | -.0 | 5.7 | 2.3 | 2.3 | -.2 | 27.7 | 100.0 | 560 |
| BOTH | 50.8 | 10.6 | 61.4 | 3.1 | 6.2 | 3.7 | 2.1 | 1.3 | 1.3 | -.3 | 21.9 | 100.0 | 1,528 |
| MEN | 53.4 | 12.8 | 66.1 | 4.1 | 6.3 | 5.5 | 5.5 | 0.0 | 2.2 | -.4 | 15.3 | 100.0 | 2,841 |
| WOMEN | 46.0 | 12.2 | 58.2 | 5.3 | 7.8 | -.0 | 4.6 | 3.2 | 3.2 | -.9 | 20.1 | 100.0 | 2,108 |
| BOTH | 50.2 | 12.5 | 62.8 | 4.6 | 7.0 | 3.2 | 1.9 | 2.6 | 2.6 | -.6 | 17.3 | 100.0 | 4,949 |
| MEN | 54.9 | 12.3 | 67.2 | 5.5 | 6.6 | 4.0 | 4.0 | 0.0 | 3.0 | -.3 | 13.4 | 100.0 | 656 |
| WOMEN | 50.1 | 10.3 | 60.5 | 9.4 | 8.0 | -.0 | 6.0 | 0.9 | 0.9 | -.6 | 19.8 | 100.0 | 339 |
| BOTH | 53.3 | 11.7 | 64.9 | 6.8 | 7.0 | 2.6 | 3.3 | 2.3 | 2.3 | -.4 | 15.6 | 100.0 | 995 |
| MEN | 55.5 | 10.2 | 65.6 | 5.1 | 6.4 | 3.1 | 3.1 | 0.0 | 1.5 | -.5 | 17.8 | 100.0 | 393 |
| WOMEN | 46.6 | 16.5 | 63.1 | 14.6 | 5.8 | -.0 | 0.0 | 0.0 | 0.0 | -.0 | 16.5 | 100.0 | 103 |
| BOTH | 53.6 | 11.5 | 65.1 | 7.1 | 6.3 | 2.4 | 2.4 | 0.0 | 1.2 | -.4 | 17.5 | 100.0 | 496 |
| MEN | 46.9 | 10.5 | 57.4 | 6.1 | 6.4 | 6.2 | 6.2 | 0.0 | 3.7 | -.4 | 19.8 | 100.0 | 14,210 |
| WOMEN | 40.7 | 11.3 | 52.0 | 7.1 | 6.8 | -.2 | 4.4 | 4.8 | 4.8 | -.6 | 24.0 | 100.0 | 9,543 |
| BOTH | 44.4 | 10.8 | 55.2 | 6.5 | 6.6 | 3.8 | 1.8 | 4.1 | 4.1 | -.5 | 21.5 | 100.0 | 23,753 |
| MEN | 36.4 | 7.7 | 44.2 | 10.0 | 4.2 | 3.4 | 3.4 | 0.0 | 0.4 | 1.1 | 37.9 | 100.0 | 530 |
| WOMEN | 11.2 | 22.5 | 13.5 | 3.4 | 4.0 | 2.9 | 2.9 | 2.2 | 1.1 | 1.1 | 56.2 | 100.0 | 89 |
| BOTH | 32.8 | 8.2 | 41.0 | 10.5 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | -.2 | 40.5 | 100.0 | 619 |
| MEN | 48.6 | 8.3 | 56.8 | 10.3 | 6.7 | 8.0 | 8.0 | 0.0 | 2.3 | 1.0 | 14.7 | 100.0 | 387 |
| WOMEN | 43.2 | 11.6 | 34.8 | 6.6 | 7.5 | -.0 | 5.5 | 1.4 | 1.4 | -.2 | 24.1 | 100.0 | 440 |
| BOTH | 45.7 | 10.0 | 55.7 | 8.3 | 7.1 | 3.7 | 2.9 | 1.8 | 1.8 | -.6 | 19.7 | 100.0 | 827 |
| MEN | 51.6 | 12.4 | 64.0 | 5.4 | 5.8 | 5.6 | 5.6 | 0.0 | 2.2 | -.3 | 16.6 | 100.0 | 52,090 |
| WOMEN | 48.0 | 13.1 | 61.1 | 6.1 | 5.8 | 1.1 | 4.4 | 3.5 | 3.5 | -.5 | 18.5 | 100.0 | 67,933 |
| BOTH | 49.6 | 12.8 | 62.3 | 5.8 | 5.8 | 2.5 | 2.5 | 2.9 | 2.9 | -.4 | 17.7 | 100.0 | 120,023 |
| UNGRADED | | | | | | | | | | | | | |
| MEN | 57.7 | 12.5 | 70.2 | 3.7 | 4.0 | 1.8 | 1.8 | 0.0 | 1.7 | -.0 | 18.7 | 100.0 | 969 |
| WOMEN | 55.0 | 12.9 | 68.0 | 2.4 | 5.0 | -.0 | 1.9 | 1.2 | 1.2 | -.2 | 21.4 | 100.0 | 4,881 |
| BOTH | 55.5 | 12.9 | 68.3 | 2.6 | 4.9 | -.3 | 1.6 | 1.2 | 1.2 | -.1 | 20.9 | 100.0 | 5,850 |
| MEN | 56.7 | 10.6 | 67.3 | 2.9 | 2.4 | -.0 | 2.1 | 1.3 | 1.3 | -.4 | 27.4 | 100.0 | 208 |
| WOMEN | 57.8 | 10.5 | 68.3 | 2.7 | 3.3 | -.0 | 2.1 | 1.3 | 1.3 | -.4 | 22.0 | 100.0 | 1,409 |
| BOTH | 57.6 | 10.5 | 68.2 | 2.7 | 3.2 | -.0 | 1.8 | 1.2 | 1.2 | -.3 | 22.7 | 100.0 | 1,617 |
| MEN | 53.9 | 14.3 | 68.2 | 3.4 | 2.6 | -.5 | 0.0 | 0.8 | 0.8 | -.1 | 24.4 | 100.0 | 1,305 |
| WOMEN | 54.9 | 10.3 | 65.1 | 2.3 | 1.9 | -.0 | 2.3 | 1.5 | 1.5 | -.2 | 26.6 | 100.0 | 1,130 |
| BOTH | 54.4 | 12.4 | 66.8 | 2.9 | 2.3 | -.2 | 1.1 | 1.1 | 1.1 | -.1 | 25.5 | 100.0 | 2,435 |
| MEN | 48.4 | 11.2 | 59.6 | 3.2 | 8.5 | 3.2 | 3.2 | 0.0 | 2.7 | -.5 | 22.3 | 100.0 | 188 |
| WOMEN | 27.9 | 4.9 | 32.8 | 3.6 | 2.3 | 1.3 | 1.3 | 2.6 | 2.6 | -.2 | 57.1 | 100.0 | 308 |
| BOTH | 35.7 | 7.3 | 42.9 | 3.4 | 4.6 | 1.4 | 1.4 | 0.8 | 0.8 | -.2 | 44.0 | 100.0 | 496 |
| MEN | 33.3 | 0.0 | 33.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -.0 | 66.7 | 100.0 | 3 |
| WOMEN | 77.8 | 0.0 | 77.8 | 0.0 | 11.1 | 0.0 | 0.0 | 0.0 | 0.0 | -.0 | 11.1 | 100.0 | 9 |
| BOTH | 66.7 | 0.0 | 66.7 | 0.0 | 8.3 | 0.0 | 0.0 | 0.0 | 0.0 | -.0 | 25.0 | 100.0 | 12 |
| MEN | 4.3 | 0.0 | 4.3 | 0.0 | 8.7 | 4.3 | 4.3 | 0.0 | 0.0 | -.0 | 82.6 | 100.0 | 23 |
| WOMEN | 40.6 | 1.1 | 41.7 | 12.6 | 1.8 | -.4 | 1.4 | 0.7 | 0.7 | -.0 | 41.4 | 100.0 | 278 |
| BOTH | 37.9 | 1.0 | 38.9 | 11.6 | 2.3 | -.7 | 1.3 | 0.7 | 0.7 | -.0 | 44.5 | 100.0 | 301 |
| MEN | 69.5 | 5.6 | 75.1 | 4.7 | 2.8 | 4.5 | 4.5 | 0.0 | 1.4 | -.0 | 11.3 | 100.0 | 1,402 |
| WOMEN | 59.3 | 12.7 | 72.0 | 5.3 | 5.5 | -.1 | 5.5 | 1.3 | 1.3 | -.2 | 10.0 | 100.0 | 2,451 |
| BOTH | 63.0 | 10.1 | 73.1 | 5.1 | 4.5 | 1.7 | 3.5 | 1.4 | 1.4 | -.2 | 10.4 | 100.0 | 3,853 |
| MEN | 52.7 | 12.8 | 65.6 | 5.1 | 5.3 | 5.1 | 5.1 | 0.0 | 2.1 | -.3 | 16.6 | 100.0 | 65,457 |
| WOMEN | 54.4 | 13.7 | 68.1 | 4.0 | 4.2 | -.1 | 3.9 | 2.7 | 2.7 | -.3 | 16.7 | 100.0 | 157,400 |
| BOTH | 53.9 | 13.5 | 67.4 | 4.3 | 4.5 | 1.5 | 2.8 | 2.5 | 2.5 | -.3 | 16.7 | 100.0 | 222,857 |

Subject Differences

The percentages of prospective teachers who enter teaching immediately following graduation range from 41.0 percent in the trade, industrial, vocational, and technical grouping to 77.0 percent in the foreign languages in elementary school. The ranked percentages by subject field of the graduates who entered teaching by November 1, 1969, are as follows:

| <u>Field of preparation</u> | <u>Percent entering teaching</u> |
|--|----------------------------------|
| Foreign language in elementary school | 77.0% |
| Elementary school--regular instruction | 74.5 |
| <u>Elementary-school--total</u> | 74.1 |
| Junior high-school subjects | 71.3 |
| Mathematics | 71.2 |
| Physical and health education in elementary school | 70.5 |
| Industrial arts | 70.2 |
| Music | 69.8 |
| Distributive education | 69.1 |
| Women's physical and health education | 68.5 |
| Special education | 68.3 |
| Library science | 68.2 |
| Guidance counselors | 66.8 |
| English | 65.2 |
| Men's physical and health education | 65.1 |
| Physics | 65.1 |
| Chemistry | 64.9 |
| Music in elementary school | 64.8 |
| Art | 63.2 |
| Biology | 62.8 |
| <u>Secondary school</u> (all fields combined) | 62.3 |
| General natural and physical sciences | 61.4 |
| Foreign languages | 59.7 |
| Home economics | 59.2 |
| Business education | 58.6 |
| Art in elementary school | 57.4 |
| Social studies | 55.2 |
| Speech and drama | 54.6 |
| Argiculture | 52.7 |
| Journalism | 41.5 |
| Trade, industrial, vocational, technical | 41.0 |

The percentages of graduates entering teaching biennially since 1954 by major areas of preparation are reviewed in Table 8. A continuing annual moderation in the percentage entering teaching noted since 1962 is generally observed among the fields. Each of these estimates may reflect minimum levels of entry because they may be increased by the possible entry of persons in the group of approximately 15 percent for whom no follow-up information is available. The percentages of 1969 graduates for whom follow-up information is not available range among the sub-

ject-area groupings from 11.5 percent of persons prepared for teaching foreign languages in elementary school to 40.5 percent of persons prepared to teach the trade-vocational-technical-industrial courses.

A planning estimate of the numbers of graduates who would be available for employment if positions were available in fall 1970 is provided in Table 9. The rationale for this estimate is a change from that used in earlier editions of this series. The present estimate of the new supply of beginning teachers reflects an assumption that if reasonably attractive positions were available, graduates would enter teaching at rates observed during periods of general teacher shortages. The rate of entry estimated for graduates prepared to teach at the elementary school level (83.2 percent) was reported for 1961, a year in which entry rates were near their peak and follow-up information was reported for a very high proportion of teacher education graduates. The rate of entry estimated for graduates prepared to teach in secondary schools (75.0 percent) is higher than the average entry rate reported for secondary education graduates but is near the rate for the total group of teacher education graduates in 1962, the highest entry rate reported in this series of studies. This entry rate is 5 to 20 percentage points higher than the average rate for secondary education graduates reported each year since 1954 but is within two percentage points of the entry rates observed in English, mathematics, general science, and industrial arts during years of greatest shortages.

State-by-State Differences

Listed in Table 10 are the percents of prospective teachers graduated in each state in 1969 who entered the profession by last November. Comparisons based on these data have limited meaning owing to the differences in the supply-demand situation in these states, differences in the numbers of nonresident prospective teachers being educated in the states, and differences in the percents of teacher education graduates for whom follow-up information is available.

At the elementary-school level while 74.1 percent of the class of 1969 entered teaching by November 1969, the proportions among the states who are known to have entered classroom teaching range from 34.2 percent in Hawaii to 90.1 percent in South Dakota. At the high-school level the percentages of prospective teachers known to have entered teaching immediately after graduation range from 33.6 percent in Hawaii to 76.4 percent in Rhode Island. In Rhode Island, the occupational status is reported for fewer than 85 percent of graduates prepared for secondary-school teaching.

TABLE 8.--PERCENTS OF TEACHER EDUCATION GRADUATES ENTERING CLASSROOMS IMMEDIATELY FOLLOWING GRADUATION, 1954-1969, BY SUBJECT AREAS

| Subject or level 1 | 1954 2 | 1956 3 | 1958 4 | 1960 5 | 1962 6 | 1964 7 | 1966 8 | 1968 9 | 1969 10 |
|---|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|------------|
| Elementary school, regular instruction | 78.9% | 80.8% | 83.3% | 82.2% | 82.3% | 81.2% | 80.8% | 78.9% | 74.5% |
| High-school subjects: | | | | | | | | | |
| Agriculture | 41.0 | 50.6 | 47.3 | 47.5 | 56.2 | 52.7 | 45.5 | 56.8 | 52.7 |
| Art ^{a/} | 62.6 | 66.5 | 70.5 | 70.5 | 70.1 | 66.8 | 67.2 | 63.3 | 62.1 |
| Business education | 58.1 | 56.2 | 59.8 | 60.7 | 63.3 | 62.7 | 65.4 | 61.4 | 58.6 |
| English | 67.9 | 68.4 | 73.1 | 73.5 | 74.7 | 70.9 | 71.8 | 67.1 | 65.2 |
| Foreign languages ^{a/} | 56.0 | 62.1 | 68.9 | 69.6 | 72.4 | 70.0 | 69.4 | 62.6 | 60.1 |
| Home economics | 66.4 | 65.2 | 65.3 | 65.5 | 65.9 | 64.7 | 63.1 | 63.9 | 59.2 |
| Industrial arts | 57.1 | 61.5 | 68.9 | 68.6 | 72.2 | 73.9 | 72.8 | 70.9 | 70.2 |
| Journalism | 59.3 | 26.5 | 56.2 | 53.2 | 38.8 | 60.9 | 59.5 | 54.1 | 41.5 |
| Library science | 85.6 | 76.8 | 78.0 | 77.8 | 81.8 | 82.5 | 69.0 | 67.5 | 68.2 |
| Mathematics | 59.0 | 66.3 | 75.8 | 74.2 | 73.9 | 74.1 | 70.8 | 71.2 | 71.2 |
| Music ^{a/} | 68.5 | 68.9 | 74.5 | 74.2 | 72.9 | 70.1 | 71.0 | 68.4 | 69.0 |
| Physical education--Men ^{a/} | 47.1 | 60.2 | 66.1 | 64.3 | 69.1 | 65.7 | 65.4 | 66.4 | 65.3 |
| Physical education--Women ^{a/} | 76.3 | 78.2 | 79.5 | 79.6 | 84.2 | 80.3 | 78.3 | 73.9 | 68.9 |
| General science | 52.0 | 64.2 | 73.5 | 71.0 | 73.5 | 67.4 | 69.9 | 62.4 | 61.4 |
| Biology | 45.4 | 58.5 | 65.0 | 66.2 | 68.3 | 66.7 | 67.6 | 67.7 | 62.8 |
| Chemistry | 36.1 | 54.3 | 65.3 | 64.4 | 65.0 | 61.8 | 60.5 | 64.3 | 64.9 |
| Physics | 51.5 | 47.3 | 69.6 | 62.1 | 66.7 | 60.1 | 61.4 | 64.5 | 65.1 |
| Social studies | 51.8 | 59.8 | 65.2 | 64.9 | 64.2 | 60.5 | 60.2 | 58.0 | 55.2 |
| Speech | 57.8 | 61.5 | 69.9 | 65.9 | 65.9 | 61.4 | 60.5 | 58.8 | 54.6 |
| Total, high-school subjects ^{b/} | 55.7% | 63.2% | 67.8% | 68.1% | 69.2% | 67.0% | 66.7% | 64.7% | 62.9% |
| Grand total ^{b/} | 65.8% | 70.7% | 73.7% | 73.6% | 74.4% | 72.7% | 72.2% | 70.3% | 68.1% |

^{a/} Includes persons prepared to teach the subject in elementary schools.

^{b/} Includes persons prepared for ungraded assignments.

Prospective Teachers Leaving the State in Which They Were Graduated

Also shown in Table 10 are the percentages of teacher education graduates who entered teaching last year who were employed in states other than those in which they were prepared. As noted elsewhere, the differences in the demand for beginning teachers and in the extent to which nonresident students are enrolled within the states would result in differences in the "holding power" of the states.

At the elementary-school level the percents of graduates entering positions outside the state in which they were prepared range from 4.5 percent in Hawaii to 38.5 percent in Nebraska. The percentages of prospective high-school teachers accepting teaching positions outside the state in which they completed their preparation range from 3.8 in Hawaii to 31.6 in South Dakota.

Teacher Education Graduates Not Entering Teaching

Table 7 shows the status of the majority of the prospective teachers who did not enter the profession immediately following their graduation. Delayed entry into teaching may be expected from many persons who continued formal study (4.5 percent), entered military service (1.5 percent), entered full-time homemaking (2.8 percent), and were actively seeking a teaching position (2.5 percent). Additional follow-up information is needed to identify the extent these persons may be expected to enter classrooms in future years.

The entry into advanced study seems to be more prevalent among the men than among women prospective teachers, and more prevalent among the persons preparing for high-school subject assignments than among those preparing for elementary-school assignments. As may be expected, entry into military service is a condition influencing men almost exclusively and entering

TABLE 9.--ESTIMATE OF THE SUPPLY OF 1970 TEACHER EDUCATION
GRADUATES AVAILABLE TO ENTER CLASSROOMS BY NOVEMBER 1, 1970

| Level or subject | Number expected to complete preparation | Number available for employment in fall, 1970 ^{a/} |
|--|---|---|
| 1 | 2 | 3 |
| Elementary school (total) | 114,390 | 95,173 |
| Regular instruction | 109,888 | 91,427 |
| Art | 1,291 | 1,074 |
| Foreign language | 413 | 344 |
| Music | 1,290 | 1,073 |
| Physical and health education | 1,508 | 1,255 |
| Secondary school (total) | 167,802 | 125,856 |
| Agriculture | 1,921 | 1,441 |
| Art | 7,343 | 5,507 |
| Business education | 10,827 | 8,120 |
| Distributive education | 585 | 439 |
| English | 27,577 | 20,683 |
| Journalism | 556 | 417 |
| Speech and dramatic arts | 4,486 | 3,365 |
| Foreign languages (total) | 10,443 | 7,832 |
| Home economics | 8,038 | 6,029 |
| Industrial arts | 5,190 | 3,893 |
| Junior high-school subjects | 641 | 481 |
| Mathematics | 12,093 | 9,070 |
| Music | 7,788 | 5,841 |
| Physical and health education | 19,697 | 14,773 |
| Natural and physical sciences (not specified) | 1,950 | 1,463 |
| General natural and physical sciences .. | 1,541 | 1,156 |
| Biology | 6,678 | 5,009 |
| Chemistry | 1,428 | 1,071 |
| Physics | 634 | 476 |
| Social studies (total) | 36,030 | 27,023 |
| Trade, industrial, vocational, technical | 733 | 550 |
| Other secondary-school subjects | 1,623 | 1,217 |
| Ungraded | | |
| Special education | 8,275 | 6,206 |
| Librarian | 2,167 | 1,625 |
| Guidance counselor | 3,945 | 2,959 |
| School psychologist | 548 | 411 |
| School social worker | 271 | 203 |
| School nurse | 320 | 240 |
| Other ungraded | 3,309 | 2,482 |

^{a/} Based on an entry rate of 83.2 percent of graduates prepared to teach in elementary grades and in special education; 75.0 percent of graduates prepared to teach secondary-school grades and other ungraded assignments.

homemaking is a condition influencing women exclusively to postpone or defer permanently their entry into classroom teaching.

The proportion of graduates known to be seeking a teaching position in November following their graduation (2.5 percent) is above the level reported for 1968 (1.6 percent) and is more widely above the level reported for 1967 (0.9 percent). Highest proportions of teacher education graduates still seeking a teaching job in November were in journalism (9.5 percent), junior high-school subjects (4.6 percent), art (4.0 percent), social studies (4.1 percent), foreign languages (4.0 percent), speech and drama (3.9 percent), home economics (3.3 percent), elementary-school art (3.3 percent), elementary-school music (3.2 percent), and English (3.1 percent). Lowest proportions of graduates in a given

subject area who were seeking a teaching position were distributive education (0.2 percent), trade-industrial-vocational subjects (0.5 percent), industrial arts (0.9 percent), guidance counseling (1.1 percent), physics (1.2 percent), special education (1.2 percent), and librarian (1.2 percent). The possibility that these very small differences are related to the status of supply and demand for new teachers in these subjects is supported by the summary beginning on page 43 of this report.

Entry into other occupations is reported for slightly higher proportions of men (5.1 percent) than of women (4.0 percent) and the decision to enter occupations other than teaching is not widespread among persons completing their preparation to teach whose occupation following their graduation is known.

TABLE 10.--LOCATION OF PERSONS WHO WERE GRADUATED BETWEEN SEPTEMBER 1, 1968 AND AUGUST 31, 1969, WITH QUALIFICATIONS FOR STANDARD CERTIFICATES AND WHO ENTERED TEACHING, 45 STATES REPORTING

| STATE | NUMBER | ELEMENTARY SCHOOL | | | NUMBER | SECONDARY SCHDDL | | |
|--------------------------|--------|-------------------|--------------------------------|-------|--------|------------------|--------------------------------|-------|
| | | IN STATE | PERCENT TEACHING OUTSIDE STATE | TOTAL | | IN STATE | PERCENT TEACHING OUTSIDE STATE | TOTAL |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
| ALABAMA | 1,359 | 53.9 | 22.1 | 75.9 | 2,593 | 47.6 | 20.2 | 67.8 |
| ARIZONA | 1,327 | 48.4 | 17.9 | 66.3 | 1,593 | 39.6 | 15.6 | 55.2 |
| ARKANSAS | 1,053 | 53.1 | 20.7 | 73.8 | 2,451 | 37.0 | 15.5 | 52.6 |
| COLORADO | 889 | 41.6 | 22.3 | 63.9 | 1,915 | 36.9 | 15.0 | 51.9 |
| CUNNECTICUT | 1,562 | 66.3 | 14.1 | 80.4 | 1,541 | 58.1 | 14.5 | 72.6 |
| DELAWARE | 153 | 44.4 | 17.6 | 62.1 | 189 | 40.2 | 15.9 | 56.1 |
| FLORIDA | 2,481 | 45.3 | 9.0 | 54.3 | 3,319 | 38.5 | 6.7 | 45.2 |
| GEORGIA | 1,810 | 65.5 | 8.7 | 74.1 | 2,662 | 54.8 | 7.6 | 62.4 |
| HAWAII | 511 | 29.7 | 4.5 | 34.2 | 292 | 29.8 | 3.8 | 33.6 |
| IDAHO | 493 | 44.6 | 21.7 | 66.3 | 652 | 35.6 | 19.3 | 54.9 |
| ILLINOIS | 3,713 | 70.1 | 10.1 | 80.2 | 6,069 | 60.2 | 9.3 | 69.6 |
| IOWA | 2,078 | 54.8 | 26.0 | 80.8 | 3,088 | 46.0 | 21.7 | 67.6 |
| KANSAS | 1,965 | 60.4 | 17.8 | 78.1 | 2,769 | 47.6 | 15.0 | 62.6 |
| LOUISIANA | 1,758 | 59.5 | 7.2 | 66.7 | 2,394 | 47.5 | 5.8 | 53.3 |
| MAINE | 510 | 67.5 | 17.3 | 84.7 | 822 | 50.7 | 14.0 | 64.7 |
| MARYLAND | 1,590 | 62.6 | 8.7 | 71.3 | 1,619 | 51.0 | 9.5 | 60.5 |
| MASSACHUSETTS | 2,988 | 59.4 | 15.6 | 75.0 | 2,878 | 42.3 | 13.1 | 55.4 |
| MICHIGAN | 4,621 | 62.4 | 10.4 | 72.8 | 7,213 | 56.2 | 6.3 | 62.4 |
| MINNESOTA | 2,830 | 60.5 | 17.4 | 78.0 | 3,665 | 50.2 | 15.0 | 65.2 |
| MISSISSIPPI | 1,357 | 48.6 | 15.3 | 63.8 | 2,564 | 43.6 | 11.7 | 55.3 |
| MISSOURI | 2,092 | 60.9 | 20.4 | 81.3 | 3,723 | 46.7 | 20.5 | 67.2 |
| MONTANA | 625 | 46.2 | 16.3 | 62.6 | 989 | 40.2 | 16.0 | 56.2 |
| NEBRASKA | 1,741 | 43.5 | 38.5 | 82.0 | 2,229 | 47.6 | 20.9 | 68.5 |
| NEVADA | 175 | 51.4 | 10.3 | 61.7 | 216 | 33.8 | 8.3 | 42.1 |
| NEW HAMPSHIRE | 468 | 50.9 | 30.8 | 81.6 | 687 | 39.3 | 20.1 | 59.4 |
| NEW JERSEY | 2,952 | 72.1 | 5.7 | 77.8 | 3,433 | 60.1 | 4.2 | 64.3 |
| NEW MEXICO | 374 | 59.6 | 24.1 | 83.7 | 618 | 46.9 | 17.0 | 63.9 |
| NEW YORK | 9,190 | 62.6 | 7.3 | 69.9 | 8,694 | 55.0 | 5.5 | 60.5 |
| NORTH CAROLINA | 2,099 | 58.3 | 22.9 | 81.2 | 4,032 | 46.3 | 17.8 | 64.0 |
| NORTH DAKOTA | 620 | 49.0 | 27.1 | 76.1 | 1,249 | 38.0 | 30.1 | 68.1 |
| OHIO | 6,173 | 55.1 | 17.9 | 73.0 | 6,718 | 57.7 | 12.0 | 69.7 |
| OKLAHOMA | 1,465 | 58.2 | 23.1 | 81.2 | 2,411 | 44.6 | 19.5 | 64.1 |
| OREGON | 1,528 | 51.8 | 14.4 | 66.2 | 1,838 | 42.5 | 11.0 | 53.5 |
| PENNSYLVANIA | 6,405 | 62.5 | 17.4 | 79.9 | 9,479 | 52.4 | 16.2 | 68.6 |
| RHODE ISLAND | 411 | 64.0 | 17.3 | 81.3 | 330 | 44.8 | 31.5 | 76.4 |
| SOUTH CAROLINA | 812 | 48.4 | 16.9 | 65.3 | 1,409 | 42.0 | 12.5 | 54.5 |
| SCUTH DAKOTA | 811 | 53.4 | 36.7 | 90.1 | 1,379 | 35.6 | 31.6 | 67.2 |
| TEXAS | 6,467 | 62.1 | 5.8 | 67.9 | 7,425 | 52.7 | 4.8 | 57.5 |
| UTAH | 1,100 | 50.3 | 20.0 | 70.3 | 1,609 | 36.5 | 16.3 | 52.9 |
| VERMONT | 320 | 43.8 | 27.2 | 70.9 | 293 | 40.3 | 20.8 | 61.1 |
| VIRGINIA | 1,426 | 66.8 | 10.9 | 77.6 | 2,426 | 53.8 | 9.3 | 63.1 |
| WASHINGTON | 2,139 | 71.4 | 10.7 | 82.1 | 2,832 | 50.1 | 10.8 | 60.9 |
| WEST VIRGINIA | 899 | 44.9 | 26.7 | 71.6 | 1,987 | 32.2 | 21.8 | 54.0 |
| WISCONSIN | 2,800 | 68.1 | 17.7 | 85.8 | 3,474 | 55.5 | 16.2 | 71.7 |
| WYOMING | 130 | 50.0 | 24.6 | 74.6 | 251 | 40.6 | 24.3 | 64.9 |

THE DEMAND FOR NEW TEACHERS

THIS SECTION CONTAINS estimates of the demand for new teachers and the demand for beginning teachers. The separate estimate of the demand for beginning teachers allows comparison with the supply of beginning teachers reviewed in the previous section of this report. Following a review of the difference between the estimated demand for new and beginning teachers are descriptions of two criteria for estimating the demand for new teachers. Finally, this section provides an estimate of the demand for beginning teachers by type of teaching assignment.

Difference Between Demand for New and Demand for Beginning Teachers

A new teacher is a person entering or re-entering active status who was not employed as a full-time teacher during the preceding school year. A beginning teacher is a person entering active employment as a full-time teacher for the first time. Therefore, the estimated demand for new teachers exceeds the demand for beginning teachers by the number of former teachers expected to re-enter teaching this year.

Estimates of the rate of re-entry of former teachers derived from four sampling studies are shown in Table 11. The rates at the elementary-school level range between 3.2 percent and 4.8 percent, and seem to be slightly lower in recent years than the levels estimated for 1957-58 and 1959-60. The rates at the secondary-school level observed in the four studies varied between 3.0 percent and 4.2 percent. The lowest and highest estimates of the re-entry rate among secondary-school teachers have been derived from the two most recent sampling studies.

The rate of re-entry of former teachers being estimated for 1970 is 3.2 percent in elementary and 3.0 percent in secondary schools, the same as the rates estimated for the 1966-67 session in the most recent survey studies. Applying these rates to the total number of full-time teachers employed in 1969-70 (1,096,696 in elementary schools and 898,659 in secondary schools) provides an estimate that 35,100 former elementary-school teachers and 27,000 former secondary-school teachers will re-enter active employment as teachers in fall 1970 following an interruption of at least one year.

The summary in Table 11 shows that the rates of re-entry of former teachers may not be constant. The variation may be a result of the numerous conditions influencing the supply and demand for teachers, and also it may reflect normal differences associated with sampling error. Multiple factors influencing these estimates of the rate of re-entry require that the planning estimates be interpreted only in very general terms.

Criteria for Estimating Demand for New Teachers

Two equally useful estimates of the demand for new teachers are presented in this report. The first shows the demand for teachers related to a minimum standard, the second reviews the demand for teachers related to current practices, including the adjustment of recent trends.

Components of the first estimate are the minimum standards of staffing characteristics required for effective instruction in the public schools. This estimate is based on an assumption that the demand for teachers must be related to achieving at least the minimum level of quality in staffing for public education. The estimate based on this assumption is termed the Quality Criterion Estimate (QCE).

The second estimate is based on a continuation of the trends in the improvement of staffing characteristics of public schools in recent years. This second estimate is termed the Adjusted Trend Criterion Estimate (ATCE).

The numbers of new teachers required by each criterion for estimating the demand for new teachers in 1970-71 are presented and discussed in the following sections.

The Quality Criterion Estimate

The Quality Criterion Estimate is based on the number of new teachers needed to achieve immediately a standard for minimum quality in the staffing of public-school classrooms. The following are discussed separately as components of this estimate: (a) the number of new teachers needed to fill new positions being created to accommodate enrollment changes, and to continue trends toward improved staffing; (b) the number of new teachers needed to replace the teachers who are interrupting or terminating their careers; (c) the number of teachers having substandard professional qualifications who need to be upgraded or replaced; (d) the

TABLE 11.--SUMMARY OF ESTIMATES OF THE DEMAND FOR BEGINNING
TEACHERS TO REPLACE PERSONS WHO LEAVE TEACHING

| Group | Percent of staff in the fall | | | | Planning estimate for 1970-71 |
|---|------------------------------|-----------------------|-----------------------|--------------------------|-------------------------------------|
| | 1957-58 ^{a/} | 1959-60 ^{a/} | 1964-65 ^{b/} | 1965-66 ^{c/} | |
| 1 | 2 | 3 | 4 | 5 | 6 |
| ELEMENTARY SCHOOL | | | | | |
| Teachers separating and not transferring to new location for the following year . | 11.2% | 8.1% | 8.5% | 5.6% (8.6) ^{d/} | 8.1% |
| Former teachers re-entering service for the following year | 4.8 | 4.1 | 4.0 | 3.2 | 3.2 |
| Difference (positions created by teacher separations which will need to be filled by beginning teachers for the following year) | 6.4 | 4.0 | 4.5 | 2.4 | 4.9 |
| SECONDARY SCHOOL | | | | | |
| Teachers separating and not transferring to new location for the following year . | 10.4 | 8.1 | 9.9 | 8.3 (9.0) ^{d/} | 8.6 |
| Former teachers re-entering service for the following year | 4.1 | 3.6 | 4.2 | 3.0 | 3.0 |
| Difference (positions created by teacher separations which will need to be filled by beginning teachers for the following year) | 6.3 | 4.5 | 5.7 | 5.3 | 5.6 |

^{a/} Based on: Lindenfeld, Frank. Teacher Turnover in Public Elementary and Secondary Schools, 1959-60. U.S. Department of Health, Education, and Welfare, Office of Education, Circular No. 678. Washington, D. C.: Government Printing Office, 1963. p. 15.

^{b/} Based on responses of teachers in a national sampling survey: National Education Association, Research Division. The American Public-School Teacher, 1965-66. Research Report 1967-R4. Washington, D. C.: the Association, 1967. 102 p. Rates of loss to the profession are estimated by subtracting the number of new positions created for 1965-66 from the estimated number of persons teaching that year who were not teaching the previous year, and calculating the percent of the 1964-65 staff represented by this estimated number of positions vacated by teacher separations. Re-entry rates are derived by estimating the number of teachers in 1965-66 who were not teaching in 1964-65 but who have already had teaching experience, then calculating the percent of the 1964-65 staff represented by them.

^{c/} Based on responses of teachers in the 1967 Teacher Opinion Poll conducted by the NEA Research Division. The estimates were derived in the manner described above.

^{d/} Rate in parentheses is estimated from responses of teachers in 1965-66 about their expected employment status in 1966-67. (See The American Public-School Teacher, 1965-66.)

number of new teachers needed to reduce overcrowded classes to reasonable maximum sizes; and (e) the number of new teachers needed to provide adequate staffing of new educational offerings, added special instructional services, and reorganization for instruction.

The Quality Criterion Estimate of teacher demand should be useful to the teaching profession, civic leaders, public officials, and research analysts in assessing the manpower requirements for attaining minimum quality in

public education. This estimate shows the demand for teachers required by a minimum level of quality in the staffing practices applied to all classrooms without consideration to the obstacles to attaining this standard immediately.

The Demand for New Teachers, Based on the Quality Criterion Estimate--Summarized in Table 12 are the estimated numbers of new teachers needed to achieve the Quality Criterion in each of several components of teacher demand.

The estimated total demand for 446,500 new teachers is an increase of 194,150 positions (9.9 percent) over the number of full-time teachers employed in the fall of 1969. The components of this estimate are described in the following paragraphs.

Increased Enrollment--The U.S. Office of Education has estimated that in fall 1970 the number of full-time and part-time elementary-school teachers in public schools will enlarge by 7,000; and secondary-school teachers, by 28,000. These estimates of staff enlargement include an expectation of a continuation of trends toward improved staffing. These estimated increases represent 0.6 percent of the number of full-time elementary-school teachers in fall 1969 (1,096,696), 3.1 percent of the number of full-time secondary-school teachers (898,659), and 1.8 percent of the total number of public-school teachers (1,995,355).

The estimated growth in the numbers of full-time public-school teachers (7,000 in elementary schools and 28,000 in secondary schools) is used in the remainder of this report to calculate the number of new teachers needed to fill new positions created to continue recent trends of staffing improvements as well as to provide instructional services for the enlarged enrollments. Owing to the use of projections of staffing as related to enrollments in recent years, this estimate may reflect a small part of the demand for new teachers estimated separately in some other components.

TABLE 12.--ESTIMATED DEMAND FOR NEW TEACHERS, BASED ON THE QUALITY CRITERION

| Source of demand | Estimated demand for new teachers | | |
|---|-----------------------------------|-----------|---------|
| | Elementary | Secondary | Total |
| 1 | 2 | 3 | 4 |
| Staff requirement of increased enrollment | 7,000 | 28,000 | 35,000 |
| Teacher turnover ... | 88,800 | 77,300 | 166,100 |
| Replacement of teachers having substandard qualifications | 51,800 | 8,600 | 60,400 |
| Reduction of overcrowded classes | 10,400 | 9,200 | 19,600 |
| Special instructional services | 97,350 | 68,050 | 165,400 |
| Total | 255,350 | 191,150 | 446,500 |

Teacher Turnover--Earlier studies in this series have used an estimate that the number of positions vacated by teachers who leave the profession each year equals about 8 percent of the total number of teachers. Information from recent studies (Table 11) provided a planning estimate for the 1967 edition of this series. The same rates are used for the 1970 edition (8.1 percent of elementary-school teachers and 8.6 percent of high-school teachers). The rate of loss projected as a planning estimate for elementary-school teachers is the same as the level estimated for 1959-60. The rate of loss projected as a planning estimate for high-school teachers is greater than the level estimated for 1959-60, but is not as high as the rates estimated in two of the four surveys reviewed in Table 11.

The variation in the estimated rates of teacher loss and re-entry derived from the four studies documents the errors in sampling estimates as well as the possibility of continued change in the factors which influence the demand for new teachers. The U.S. Office of Education studies show differences in the rates of teacher turnover and re-entry among school districts grouped by their geographic region. Studies of teacher turnover reported by several states show there are wide differences among the states in these rates. Further, the rates of turnover and re-entry are expected to fluctuate with changes in the adequacy of the supply of beginning teachers, the total demand for qualified teachers, composition of the teaching staff, characteristics of persons in the pool of qualified former teachers, conditions related to the teaching assignments being vacated, rate by which the staff size is enlarged, and the varied economic conditions which influence turnover and re-entry of qualified former teachers. The consideration of the sampling errors of the four studies, continued changes in the conditions influencing teacher turnover and re-entry, and need for additional data to support differences applicable to each sex and subject grouping suggest that the planning estimates used for this study be treated only in very general terms.

In summary, for this study the planning estimate of the demand for new teachers to replace those who leave the profession is 8.1 percent of the number of full-time elementary-school teachers and 8.6 percent of the number of full-time secondary-school teachers. Subtraction of the numbers of teachers expected to re-enter the profession following an interruption of one or more years from the total estimated demand for new teachers provides an estimate of the demand for beginning teachers. The numbers of re-entering teachers estimated for 1970-71 are 35,100 in elementary and 27,000 in secondary schools. Applying these estimates to the number of full-time elementary- and full-time secondary-school teachers in 1969-70

provides the following estimates of demand for new and beginning teachers in fall 1970 to fill positions created by teacher turnover:

| <u>Level</u> | <u>Turnover-based demand in 1970-71 for</u> | |
|-------------------------|---|---------------------------|
| | <u>New teachers</u> | <u>Beginning teachers</u> |
| Elementary school | 88,800 | 53,700 |
| Secondary school | 77,300 | 50,300 |
| Total | 166,100 | 104,000 |

Replacement of Teachers Having Substandard Qualifications--These estimates are based on an assumption that the minimum educational requirement for qualified teachers is completion of the bachelor's degree and the teachers having less than a bachelor's degree need to be upgraded or replaced. For many of these teachers who lack only one or two years of college this replacement may be on a short-term basis while they return to teacher preparation institutions to complete their degree.

The data in Table 24 (page 53) show an estimate that 5.9 percent of all elementary-school teachers in 1969-70 lacked the bachelor's degree. Applying this percentage to the total number of full-time elementary-school teachers employed in 1969-70 provides an estimate that 64,705 elementary-school teachers lacked the bachelor's degree. The estimated demand for 51,800 elementary-school teachers allows for about 20 percent of the 64,705 elementary-school teachers lacking the bachelor's degree to have completed the degree requirements or to have resigned prior to the 1970-71 session.

The estimate of demand at the secondary-school level is based on the estimated percentage of secondary-school teachers who did not have the bachelor's degree in 1969-70, shown in Table 24. The estimate of 1.2 percent applied to the 898,659 full-time secondary-school teachers employed in the fall of 1969 indicates that 10,784 secondary-school teachers did not have the bachelor's degree in 1969-70. The estimate that 8,600 of these need to be replaced is based on an assumption that 20 percent of the 10,784 teachers lacking the degree will have subsequently graduated or have resigned.

Support for these as being minimum estimates is provided by the reports from the states to the U.S. Office of Education showing the number of full-time classroom teachers who do not meet the state regular certification requirements for the positions which they occupy. The total number of substandard teachers reported and estimated in the fall 1969 survey was 100,000 teachers: 56,400 in elementary schools and 43,600 in secondary schools. Owing to differences among the states in the

minimum educational requirements for certification and differences in specific requirements beyond the attainment of the bachelor's degree, the data from the U.S. Office of Education fall survey are not entirely comparable with the estimates being used in this report.

Reduction of Overcrowded Classes--A national survey by the NEA Research Division in 1969-70 provides a general estimate of the distribution of class size and teacher load in public schools. These percentage distributions were applied to the total number of full-time teachers in the fall of 1969 to obtain an estimate of the number of persons who may have been assigned extremely large classes during 1969-70.

The intervals in these distributions provide a base for these estimates of the minimum numbers of additional teachers needed to reduce maximum size of classes in elementary schools to no more than 34 pupils each and the maximum average daily teacher load in secondary schools to no more than 199 pupils.

Data on the staffing practices for classes on double-shift sessions are not available. Therefore, this summary does not include an estimate of additional demand for new teachers resulting from these classes.

Special Instructional Services--In this classification are the new teachers needed to provide special instructional services, enlarge the scope of educational offerings, and provide special programs for pupils having special learning needs (physically, mentally, and emotionally handicapped, the culturally disadvantaged, etc.). It is estimated that at least 165,400 additional teachers are needed for this component of demand. It is not feasible to establish an accurate estimate of the demand for new teachers resulting from this component because prescriptive statements of minimum standards and precise data about present conditions are nonexistent or limited.

A minimum of 32,950 new teachers are needed to provide kindergarten for the same proportion of five- and six-year-old children as the proportion of seven-year-olds now enrolled in school. This estimate does not include the number of new teachers needed to replace present kindergarten teachers having substandard qualifications, to replace present kindergarten teachers who interrupt or terminate their careers, or to provide improvement of the teacher-pupil ratio at this level of instruction.

At least 300 new teachers are estimated to be needed to enlarge offerings in elementary and secondary schools which have curtailed enrollments in programs of instruction having a critical shortage of qualified applicants. It is not possible to estimate the extent that schools have limited offerings or no offerings

in industrial arts, physical sciences, mathematics, and vocational-technical subjects as a result of the chronic short supply of qualified applicants.

At least 25,850 new teachers are needed to reduce the impact of misassignment of teachers in elementary and secondary schools. These represent about one-sixth of the number of teachers estimated to be teaching full-time in fields other than those of their major preparation--many have improved their preparation following graduation and, with the improving supply-demand situation, many may have moved into more appropriate assignments. This estimate does not include the number of new teachers needed to reduce the effect of the additional 172,377 teachers who are misassigned for more than half but not all of their teaching time.

At least 106,300 new teachers are needed to make significant progress toward providing special education to children and youth who require it. This estimate is about half of the number of new teachers (212,600) which would be needed this year to provide separately organized special education classes for the 10 percent of school-age children and youth needing this program. These estimates do not include the number of new teachers needed to replace present special education teachers having substandard preparation and the demand created by normal turnover of teachers in these assignments.

Estimated Demand for Beginning Teachers Based on the Quality Criterion--Listed below are the estimated numbers of new and beginning teachers needed to achieve the demand based on the Quality Criterion Estimate.

| | Number of teachers | | |
|---|--------------------|-----------|---------|
| | Elementary | Secondary | Total |
| Demand for new teachers based on the Quality Criterion Estimate | 255,350 | 191,150 | 446,500 |
| Expected re-entry of former teachers .. | 35,100 | 27,000 | 62,100 |
| Demand for beginning teachers | 220,250 | 164,150 | 384,400 |

The Adjusted Trend Criterion Estimate

The Adjusted Trend Criterion provides an estimate of the number of new teachers who will actually be employed by public school systems in the school year 1970-71 as indicated by recent staffing practices. This estimate is projected from information about the numbers of new teachers employed in recent years. The demand for new teachers in this estimate reflects

a continuation of current trends toward improved staffing conditions rather than immediate achievement of the standards of minimum quality in the staffing of classrooms provided by the Quality Criterion Estimate.

The projections based on the Adjusted Trend Criterion should be especially useful to college and university counselors of potential teachers, to individuals planning careers in teaching, to former teachers considering re-entry into teaching, and to educational leaders. This projection provides an estimate of the immediate condition of the demand for teachers--the minimum number of employment opportunities for beginning and re-entering teachers during the school year 1970-71.

The Demand for New Teachers, Based on the Adjusted Trend Criterion Estimate--Estimates of the number of teaching positions to be filled by the supply of new teachers for the opening of a given school session may be based on trends observed in two components reviewed earlier: (a) positions being created or eliminated as a result of changes in enrollment, organization for instruction, and in the pupil-teacher ratio; and (b) positions created by the teachers who are interrupting or terminating their careers in the public schools during or at the close of the school year.

Teachers Needed To Fill New Positions (ATCE)--The demand for new teachers is influenced by the creation of new positions for increased enrollment, changes in organizational placement of certain grades, and other organizational changes influencing the pupil-teacher ratio (reduction of the number of large classes and provision of specialized educational services). The estimated number of new teaching positions being created for 1970-71 to provide for increased enrollment and continuation of trends in the improvement of staffing related to enrollment are reviewed as part of the Quality Criterion Estimate of demand. It is estimated that between 1969-70 and 1970-71 the number of teachers will increase by 7,000 in elementary schools and by 28,000 in secondary schools.

Teachers Needed To Replace Those Interrupting or Terminating Their Careers--Estimates of the rates of teacher turnover and re-entry were reviewed as one component of the Quality Criterion Estimate of the demand for new teachers. It is estimated that 88,800 new elementary-school teachers will be needed in 1970-71 to replace those who leave employment as teachers following 1969-70, and among these, 53,700 will need to be beginning teachers. At the secondary-school level it is estimated that 77,300 new teachers will be needed in 1970-71 to replace those who have left teaching, and 50,300 of these will need to be beginning teachers.

Total Estimated Demand for New Teachers Based on the Adjusted Trend Criterion (ATCE)--
Combination of the estimates from the two components of demand reviewed above provides an estimate that the number of new teachers for whom employment is virtually assured in 1970-71 is 95,800 in elementary schools and 105,300 in secondary schools. These estimates include the demand for 60,700 beginning teachers in elementary schools and 78,300 beginning teachers in secondary schools.

The trends in demand for qualified public-school teachers for a given school year may be changed as a result of changes in various factors such as the following:

- Major modification in the school program and assignment load of teachers
- Enrollment growth related to enlarged educational programs
- Reduction in the ratio of pupils per teacher to provide special programs being encouraged through federal and state legislation
- Change in the rate by which persons having substandard qualifications are being replaced
- Elimination of large classes.

Some of these conditions have been influencing the demand for new teachers during the past several years. The trends in staffing practices observed in the past are included in the data used to derive the estimates of teacher demand based on the Adjusted Trend Criterion. For example, information given later in this report shows marked improvement in the educational qualifications of elementary-school teachers during the past 10 years.

Owing to the lack of precise data, it is difficult to estimate the specific effects of new conditions influencing some of the components of teacher demand. For example, present data do not allow identification of the number of teachers being counted in regular staff turnover or attrition who have substandard certification and are encouraged to resign largely because of this condition.

Other Factors Influencing the Demand for New Teachers

The U.S. Office of Education has estimated that the total number of teachers in nonpublic schools in the fall of 1970 will be 1,000 fewer than the number in these schools in fall 1969.

The increased enrollments at the 2-year and 4-year college level may continue to provide

employment opportunities to public-school teachers desiring to move to these levels, thereby opening some positions for new teachers in the elementary and secondary schools. It is estimated that 19,000 more teachers will be needed in higher education in fall 1970 than in fall 1969.

Probably the alleviation of general shortages in many other occupations which attract young people having at least the bachelor's degree and the decreased demands of the military services are contributing to a decrease in the exodus of qualified teachers and an increase in the numbers of qualified potential teachers.

Summary of the Estimates of Demand for New Teachers

Listed below are the total numbers of new teachers who will be needed in the fall of 1970 as determined by the two criteria. An estimate of the demand for beginning teachers may be obtained by subtracting the 35,100 elementary- and 27,000 secondary-school teachers expected to re-enter the profession.

| <u>Base</u> | <u>Number of new teachers in demand for fall 1970</u> | | |
|---|---|------------------|--------------|
| | <u>Elementary</u> | <u>Secondary</u> | <u>Total</u> |
| Adjusted Trend Criterion Estimate | 95,800 | 105,300 | 201,100 |
| Quality Criterion Estimate | 255,350 | 191,150 | 446,500 |

Characteristics of Demand for New Teachers as Suggested by Assignments in Selected States

Varying numbers of states have reported the number of new teachers employed and their assignments as part of the past 22 surveys of teacher supply and demand. (These included experienced teachers returning to the classroom as well as the beginning teachers.) For recent studies the states were asked also to report for each assignment the total numbers of teachers and the number of new teachers who are re-entering active service following an interruption of at least one year. The summary of information from the states which were able to report data for 1969-70 is provided in Table 13.

The distribution of the new teachers among teaching assignments in 1969-70 provides an estimate of the comparative demand between elementary- and high-school levels and among selected assignment areas. As in earlier studies of this series, a general estimate of the 1970-71 demand for new teachers in each subject is projected by applying the percentage distribution of new teachers reported last year to the total estimated demand for new teachers this year.

TABLE 13.--RELATIVE DEMAND FOR NEW ELEMENTARY- AND HIGH-SCHOOL TEACHERS IN VARIOUS STATES AND PERCENT OF ALL PUBLIC-SCHOOL TEACHERS IN ELEMENTARY SCHOOLS, 1948-49 TO 1969-70

| Session | Reporting states | | | All public schools | |
|---------------|------------------------|-------------------------------|---|-------------------------|-------------------------------|
| | Number of new teachers | Percent in elementary schools | Number of states | Number of teachers | Percent in elementary schools |
| 1 | 2 | 3 | 4 | 5 | 6 |
| 1948-49 | 36,208 | 57.2% | 21 | 887,175 ^{a/} | 64.5% |
| 1949-50 | 35,242 | 56.8 | 18 | 913,671 | 64.5 |
| 1950-51 | 41,793 | 57.7 | 23 + Alaska & D. C. | 938,268 ^{a/} | 64.4 |
| 1951-52 | 45,658 | 58.9 | 26 + Alaska & D. C. | 962,864 | 64.4 |
| 1952-53 | 45,859 | 61.4 | 26 | 997,501 ^{a/} | 64.0 |
| 1953-54 | 58,010 | 60.9 | 29 + Alaska & D. C. | 1,032,138 | 63.7 |
| 1954-55 | 54,875 | 60.1 | 30 + D. C. | 1,068,000 | 64.7 |
| 1955-56 | 58,257 | 60.6 | 30 + D. C. | 1,141,000 ^{b/} | 64.2 |
| 1956-57 | 62,099 | 59.9 | 29 + D. C., Hawaii, & Puerto Rico | 1,199,000 ^{c/} | 62.6 |
| 1957-58 | 62,579 | 56.6 | 32 + Alaska & D. C. | 1,259,000 ^{b/} | 62.4 |
| 1958-59 | 59,651 | 54.4 | 30 + Alaska, Hawaii, D. C., & Puerto Rico | 1,306,000 ^{b/} | 62.4 |
| 1959-60 | 57,810 | 53.6 | 27 + D. C. | 1,355,000 ^{b/} | 61.4 |
| 1960-61 | 59,115 | 55.7 | 26 + D. C. | 1,408,000 ^{b/} | 60.9 |
| 1961-62 | 64,753 | 53.1 | 29 + D. C. | 1,461,000 ^{b/} | 59.5 |
| 1962-63 | 53,192 | 53.5 | 24 + D. C. | 1,508,000 ^{b/} | 58.8 |
| 1963-64 | 48,097 | 51.0 | 22 + D. C. | 1,578,000 ^{b/} | 57.5 |
| 1964-65 | 58,948 | 53.0 | 27 + D. C. | 1,648,000 ^{b/} | 57.0 |
| 1965-66 | 79,955 | 50.5 | 29 | 1,710,000 ^{b/} | 56.4 |
| 1966-67 | 88,370 ^{d/} | 50.7 ^{d/} | 24 | 1,789,000 ^{b/} | 56.2 |
| 1967-68 | 92,352 ^{d/} | 48.7 ^{d/} | 28 + D. C. | 1,855,200 ^{c/} | 56.1 |
| 1968-69 | 75,063 ^{d/} | 48.4 ^{d/} | 23 + D. C. | 1,936,300 ^{c/} | 55.6 |
| 1969-70 | 111,723 ^{d/} | 50.7 ^{d/} | 23 | 2,013,800 ^{c/} | 55.0 |

^{a/} Estimated from U. S. Office of Education, Biennial Surveys of Education.

^{b/} U. S. Department of Health, Education, and Welfare, Office of Education. Projections of Educational Statistics to 1977-78. 1968 edition. Washington, D. C.: Government Printing Office, 1969. p. 47.

^{c/} U. S. Department of Health, Education, and Welfare, Office of Education. Statistics of Public Elementary and Secondary Day Schools, Fall 1969. Washington, D. C.: Government Printing Office, 1970. p. 8.

^{d/} Librarians are counted as secondary teachers, as in earlier studies.

^{e/} Estimated.

Several states reported additional information about the percent of the total number of teachers in each assignment who were new teachers, and the percent of new teachers who are beginning teachers. This information provides the source for an alternate estimate of the number of new and beginning teachers to be employed in 1970-71.

Relative Demand for New Elementary- and High-School Teachers

Shown in column 2 of Table 13 are the total numbers of new teachers employed in 1969-70 who were given their complete or major assignment in either elementary- or high-school levels. The total demand for new elementary-school teachers was 2,577 more than the total demand for new high-school teachers in

these 23 states. The new elementary-school teachers represented 51.2 percent of all new teachers. If librarians are included, as in earlier studies, the new elementary-school teachers represented 50.7 percent of all new teachers (shown in Table 13).

An estimate of trends in the relative demand for new teachers between the elementary- and high-school levels is provided by information reported by the varying number of states in the earlier studies of this series. Summarized in Table 13 are the total numbers of new teachers and the percents of these teachers being assigned to elementary schools in the reporting states since 1948-49. Also shown are the total numbers of public-school teachers in the United States during these same years with the percent of all teachers who are assigned duties in the elementary schools.

The information listed in column 6 of Table 13 shows a gradual reduction during the past 22 years in the proportion of all public-school teachers being assigned to elementary schools. This change is shown, also, among the percents of new teachers being assigned to elementary schools in the reporting states. The impact of the marked growth in elementary-school enrollments between 1952-53 and 1957-58 is reflected in the increased percents during these years shown in column 3. The influence of the increased annual growth in secondary-school enrollments upon the demand for new teachers probably has contributed to the lower proportions of new teachers being assigned to elementary schools in recent years.

The percents of all new teachers being assigned to elementary schools in the reporting states are consistently lower than the percents of all teachers in the nation being assigned to elementary schools. If conditions in the reporting states are representative of the nation, the information in Table 13 suggests that the relatively greater annual demand for new (re-entering and beginning) teachers in elementary schools than for high schools has been decreasing, and that during the past five years the demand for new elementary-school teachers was not widely different from the demand for new secondary-school teachers.

These data reflect demand for teachers as defined by the Adjusted Trend Criterion--the demand which has been observed in the employment of new teachers. The demand for new teachers based on the Quality Criterion during these years has consistently called for greater numbers of qualified new teachers being assigned to elementary schools than have been available for such assignment. Possibly, these proportions of new teachers being assigned to elementary schools might have been greater if the supply of qualified new teachers were equally adequate at both levels.

Relative Demand for New Teachers Among High-School Subjects, Adjusted Trend Criterion Estimate

The distribution of new teachers among the assignments reported by 23 states provides the basis for an estimate of the number of new teachers needed in each assignment in 1970-71. Summarized in column 2 of Table 16 are the numbers of new teachers which will be employed in each assignment in 1970-71 if the percentage distribution of new teachers observed last session in 23 states is projected to the estimated total number of new teachers to be employed in 1970-71.

The basis for an alternate estimate of the 1970-71 demand for new teachers in each assignment is provided by additional information reported for the fourth time in the present study.

The reports of several states contained one or more of the following data by each teaching assignment: The total number of teachers, the number of new teachers, and the number of new teachers who were re-entering active status in 1969-70 following an interruption of at least one year. This additional information allows an estimate of the demand for new teachers for each assignment separately, based on information which reflects the combined influence of growth in total number of persons and the rate of teacher turnover.

Only 19 states were able to supply the total numbers of teachers in each assignment area. To allow correction for the likelihood that the summary distribution from these states is not representative of the national pattern, a second estimate of the distribution of all teachers by assignment areas was derived by using information from NEA Research Division sampling studies conducted during the past six years. The distributions derived from the reports of the 19 states and the average of the percents observed in the six most recent sampling surveys are shown in Table 14. In most assignments the differences in the percent of total staff being estimated by the two sources are smaller than 1 percentage point. The differences are attributable, in part, to the different numbers of assignment classifications (e.g., the junior high-school classification used in the present survey includes some of the staff reported in other subjects in the sampling surveys). Other differences greater than 1 percentage point (English, mathematics, physical and health education, science, social studies, and special education), may reflect sampling error as well as differences from the national average in the staffing assignment pattern of the 19 states reporting the total number of teachers in each major assignment classification.

The states are not consistent in the practice of reporting the numbers of persons assigned as librarians or counselors. It is not clear that all states count them as teachers or if they do, whether or not they are classified by their titles. Therefore, information from the small number of states which reported these positions separately is used later in this report to estimate the demand for persons in these assignments.

Listed in column 4 of Table 15 are the averages of the percents of the staff in each major assignment who were new teachers in the 19 reporting states. The percents varied widely among the reporting states as shown in Appendix Table B which lists the low, high, and median percents reported among the 19 states. The variation of these rates among the reporting states suggests that the average percent does not provide a precise estimate--that the numbers of new teachers projected from these data should be interpreted only in very general terms.

TABLE 14.--THREE ESTIMATES OF THE PERCENT DISTRIBUTION OF SECONDARY-SCHOOL TEACHERS BY MAJOR ASSIGNMENT

| Major assignment | Percent of secondary-school teachers | | |
|--|--------------------------------------|----------------------------------|-------------------------------------|
| | Seven-teen report- ing in 1968-69 | Nine-teen report- ing in 1969-70 | Average of six sam- pling sur- veys |
| | 1 | 2 | 3 |
| Agriculture | 1.9% | 1.5% | 1.0% |
| Art | 2.2 | 2.4 | 2.2 |
| Business education ... | 5.5 | 6.3 | 6.1 |
| Distributive education | 0.6 | 0.4 | a/ |
| English language arts. | 18.3 | 17.9 | 20.6 |
| Foreign languages | 3.9 | 5.0 | 5.1 |
| Home economics | 4.6 | 4.2 | 4.8 |
| Industrial arts | 3.6 | 4.5 | 4.7 |
| Junior high school ... | 1.3 | 5.4 | a/ |
| Mathematics | 11.7 | 11.6 | 13.8 |
| Music | 4.2 | 4.1 | 3.6 |
| Physical and health education | 7.6 | 9.2 | 7.6 |
| Science | 10.2 | 8.7 | 12.4 |
| Social studies | 12.3 | 13.7 | 15.0 |
| Trade, industrial, vocational, technical | 1.8 | 2.1 | 1.6 |
| Special education | 3.6 | 2.3 | 0.7 |
| Other | 6.7 | 0.7 | 0.8 |
| Total | 100.0% | 100.0% | 100.0% |

a/ Category not used in tabulating staff by major assignment.

The estimates shown in column 4 of Table 15 list the percents of total staff represented by new teachers observed when the total number of teachers increased by 2.7 percent in elementary schools and by 4.9 percent in secondary schools. The projected growth in total number of teachers between 1969-70 and 1970-71 is estimated to be 0.6 percent in elementary schools and 3.1 percent in secondary schools. The total demand for new teachers in 1969-70 (for both staff enlargement and turnover) represented 10.8 percent of the 1968-69 staff in elementary schools and 13.5 percent of the 1968-69 staff in secondary schools. The projected total demand for new teachers in 1970-71 represents 8.7 percent of the 1969-70 staff in elementary schools and 11.7 percent of the 1969-70 staff in secondary schools. The ratio of the percent of 1969-70 staff represented by the estimated demand for new teachers in 1970-71, to the percent of the 1968-69 staff represented by the demand for new

teachers in 1969-70 was 0.806 at the elementary level and 0.867 at the secondary level. The projected percents of 1970-71 staff in each subject who will be new teachers were derived by applying these ratios to the percents of staff in the subject who were new teachers in 1969-70.

This procedure does not provide for change in the relative rate of growth among the teaching assignments. Additional information about such variation is needed to allow further correction of the projection of teacher demand.

The projected percent of staff expected to be new teachers in 1970-71 was applied to the estimated total number of teachers in each assignment in 1970-71, and the resulting estimate of the demand for new teachers is listed in column 3 of Table 16. In this estimate, the sum of the demand for new teachers among the assignments is more than one-third larger than the total demand estimated for elementary and secondary levels as a whole, listed in column 2.

The information in column 2 of Table 16 provides an estimate which is consistent in method of calculation with those used in earlier reports of this series. The estimate in column 3 of Table 16 is used throughout the remainder of this study as an alternate estimate of the demand for new teachers in 1970-71.

Estimated Demand for Beginning Teachers

The numbers of teachers who may be expected to re-enter active employment following an interruption of at least one year influence the demand for beginning teachers. The rate of re-entry in 1970-71 in elementary- and secondary-school assignments is estimated to be 3.2 percent of all elementary-school teachers and 3.0 percent of all secondary-school teachers in 1969-70; the same rates were estimated last year. The estimated demand for beginning teachers based on an assumption that the total numbers of re-entering teachers are distributed among the assignments on the same basis as the total number of new teachers, as has been the practice in earlier studies of this series, is listed in column 3 of Table 21.

Information from 18 states reporting both the number of new teachers and the number of re-entering teachers in 1969-70 in each assignment provides the base for an alternate estimate of the demand for beginning teachers which allows for the possibility of differences among the assignments in the rate of re-entry of qualified former teachers. The low, median, high, and mean percents of new teachers who were re-entering in the states reporting are listed in Appendix Table C. The estimate listed in column 4 of Table 21 results from applying the average percent of new teachers who were re-entering (listed in column 5 of Table 15) to

TABLE 15.--NUMBER AND PERCENT OF NEW TEACHERS, PERCENT OF STAFF WHO WERE NEW TEACHERS, AND PERCENT OF NEW TEACHERS WHO RE-ENTERED IN 1969-70, BY ASSIGNMENT

| Assignment | Number of new teachers, 23 states | Percent distribution of new teachers, 23 states | Average percent of staff who were new teachers, 19 states | Average percent of new teachers who were re-entering, 18 states |
|--|-----------------------------------|---|---|---|
| 1 | 2 | 3 | 4 | 5 |
| Elementary (total) | | | | |
| Regular instruction | 51,747 | 91.4% | 17.1% | 47.0% |
| Selected subjects | | | | |
| Art | 434 ^{a/} | 0.8 ^{a/} | 18.9 ^{b/} | 28.6 ^{b/} |
| Foreign language | 28 ^{c/} | 0.1 ^{c/} | 11.0 ^{d/} | 33.3 ^{e/} |
| Music | 1,421 ^{f/} | 2.5 ^{f/} | 19.0 ^{g/} | 59.2 ^{g/} |
| Physical and health education | 1,377 ^{f/} | 2.4 ^{f/} | 27.0 ^{g/} | 45.6 ^{g/} |
| Special education | 1,583 ^{f/} | 2.8 ^{f/} | 16.3 ^{c/} | 37.0 ^{c/} |
| Total, classroom instruction | 56,590 ^{f/} | 100.0 | ... | ... |
| Librarian | 373 ^{f/} | ... | 9.1 ^{h/} | 53.9 ^{g/} |
| Guidance counselor | 76 ^{a/} | ... | 8.0 ^{c/} | 57.1 ^{g/} |
| Secondary (total) | | | | |
| Agriculture | 546 ^{i/} | 1.0 ^{i/} | 13.4 ^{a/} | 42.3 ^{g/} |
| Art | 1,526 | 2.8 | 21.7 | 28.9 |
| Business education | 2,992 | 5.5 | 16.6 | 41.5 |
| Distributive education | 163 ^{a/} | 0.3 ^{a/} | 14.7 ^{g/} | 31.9 ^{d/} |
| English language arts | 11,982 | 22.2 | 20.9 | 36.9 |
| Foreign language (total) ... | 2,970 | 5.5 | 21.8 | 39.5 |
| Home economics | 1,980 | 3.7 | 16.9 | 43.6 |
| Industrial arts | 2,011 | 3.7 | 16.2 | 40.8 |
| Junior high school | ^{j/} | ^{j/} | 34.6 ^{k/} | 71.2 ^{l/} |
| Mathematics | 7,125 | 13.2 | 17.5 | 33.8 |
| Music | 2,061 | 3.8 | 17.1 | 39.0 |
| Physical and health education (total) | 4,570 ^{m/} | 8.5 | 17.5 | 40.2 |
| Men | ^{n/} | ... | 11.7 ^{o/} | 50.9 ^{p/} |
| Women | ^{n/} | ... | 16.0 ^{o/} | 37.1 ^{p/} |
| Natural and physical sciences (total) | 6,129 ^{q/} | 11.4 | 18.4 ^{g/} | 36.5 ^{g/} |
| Social studies (total) | 7,454 | 13.8 | 15.3 | 30.4 |
| Trade, industrial, vocational, technical | 891 | 1.7 | 13.9 | 33.3 ^{c/} |
| Special education | 1,324 ^{m/} | 2.5 | 17.4 ^{h/} | 29.1 ^{h/} |
| Other secondary subjects ... | 289 ^{l/} | 0.4 | 11.2 ^{r/} | 37.3 ^{k/} |
| Total classroom instruction | 54,013 | 100.0 | ... | ... |
| Librarian | 747 ^{m/} | ... | 10.6 ^{a/} | 42.1 ^{h/} |
| Guidance counselor | 404 ^{i/} | ... | 4.0 ^{h/} | 72.4 ^{c/} |

a/ Information from 18 states. b/ Information from 14 states. c/ Information from 16 states. d/ Information from 12 states. e/ Information from 9 states. f/ Information from 19 states. g/ Information from 15 states. h/ Information from 17 states. i/ Information from 21 states. j/ Information from 11 states was distributed equally among English language arts, mathematics, natural and physical sciences, and social sciences. k/ Information from 7 states. l/ Information from 10 states. m/ Information from 22 states. n/ Information from 13 states (Among these, men represented 58.3 percent of all physical and health education teachers.) o/ Information from 6 states. p/ Information from 11 states. q/ Information from 20 states. r/ Information from 8 states.

TABLE 16.--SUMMARY OF TWO ADJUSTED TREND CRITERION ESTIMATES
OF THE DEMAND FOR NEW TEACHERS IN 1970-71

| Assignment | Projected total 1970-71 demand distributed as reported by 23 states in 1969-70 | Projection of total demand based on the relation of new staff to total staff in assignment in 1969-70 on basis of esti- mated total staff distribution from na- tional sampling studies |
|-------------------------------------|--|---|
| 1 | 2 | 3 |
| ELEMENTARY (total) | (95,800) | (154,817) |
| Regular instruction | 87,562 | 148,902 |
| Selected subjects | | |
| Art | 766 | 678 |
| Foreign language | 96 | 298 |
| Music | 2,395 | 1,535 |
| Physical and health education ... | 2,299 | 2,674 |
| Special education | 2,682 | 730 |
| SECONDARY (total) | (105,300) | (145,756) |
| Agriculture | 1,053 | 1,063 |
| Art | 2,948 | 3,863 |
| Business education | 5,792 | 8,204 |
| Distributive education | 316 | ... |
| English language arts | 23,377 | 34,825 |
| Foreign languages | 5,792 | 9,003 |
| Home economics | 3,896 | 6,590 |
| Industrial arts | 3,896 | 6,146 |
| Junior high school | a/ | ... |
| Mathematics | 13,900 | 19,592 |
| Music | 4,001 | 4,976 |
| Physical and health education: | | |
| Men | 5,218 ^{b/} | 10,790 ^{c/} |
| Women | 3,733 ^{b/} | c/ |
| Natural and physical sciences | 12,004 | 18,531 |
| Social sciences | 14,531 | 18,633 |
| Trade, industrial, vocational | 1,790 | 1,808 |
| Special education | 2,633 | 987 |
| Other subjects | 420 | 725 |

a/ Information reported by 11 states provides an estimate that 9,372 new teachers will be needed; these have been apportioned equally among English, social studies, mathematics, and science.

b/ Projected from information reported by 13 states.

c/ Information from 6 states reporting total and new teachers by sex provides an estimated demand for 3,585 men teachers and 4,933 women teachers.

the estimated demand for new teachers (listed in Table 16, column 3).

Quality Criterion Estimate of the Demand for School Librarians and Guidance Counselors

The American Library Association suggests that for a given school there should be a full-time librarian for each 300 pupils up to 900; and, thereafter, one for each additional 400 pupils. With allowance for the influence of schools having various total enrollments, a

general minimum estimate of the total demand for school librarians needed to meet this standard of minimum quality is projected by applying these standards to the estimated distribution of schools by enrollment size in 1969-70. This provides an estimated need for 93,110 full-time librarians in elementary schools and 61,104 full-time librarians in secondary schools in fall 1970. Subtraction of the estimated number of librarians employed in 1969-70 (15,079 in elementary schools and 23,684 in secondary schools) provides an estimated demand in 1970 for 78,031 new librarians in elementary schools and 37,420 new librarians

in secondary schools, in addition to the numbers needed to replace those normally expected to leave their positions between 1969-70 and 1970-71.

If the equivalent of one guidance counselor for each 2,000 pupils in elementary schools were used as a planning estimate for making significant progress toward attaining minimum quality in guidance services at this level, there would be a total demand for 16,215 guidance counselors in elementary schools in fall 1970. Subtraction of the estimated 2,796 persons in this assignment in 1969-70 provides an estimated demand in 1970 for 13,419 new elementary-school guidance counselors, in addition to the number needed to replace those who normally will terminate their

employment in this position between 1969-70 and 1970-71.

Similarly, at the secondary level it is estimated that 44,434 guidance counselors would be needed in fall 1970 to provide one counselor per 300 students enrolled. Subtraction of the estimated 33,991 counselors estimated as being employed in secondary schools in 1969-70 provides an estimated demand for 10,443 new guidance counselors, in addition to the number needed to replace those who leave their positions, to meet this standard of minimum quality in provision of guidance counseling services in secondary schools in fall 1970.

In summary, the following shows the numbers of new staff members which will be needed, in

TABLE 17.--INFORMATION USED TO PROJECT AN ADJUSTED TREND CRITERION ESTIMATE OF THE DEMAND FOR NEW SCHOOL LIBRARIANS AND GUIDANCE COUNSELORS, 1970-71

| Type of information | School librarians | | | Guidance counselors | | |
|--|-------------------|-----------|--------|---------------------|-----------|--------|
| | Elementary | Secondary | Total | Elementary | Secondary | Total |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| <u>Information from 15 states, 1969-70</u> | | | | | | |
| Number of staff | 3,489 | 5,883 | 9,372 | 647 | 8,443 | 9,090 |
| Number of new staff | 317 | 621 | 938 | 52 | 339 | 391 |
| Percent of staff who are new | 9.1% | 10.6% | 10.0% | 8.0% | 4.0% | 4.3% |
| <u>Projected national estimate, 1969-70^{a/}</u> | | | | | | |
| Number of staff | 15,079 | 23,684 | 38,763 | 2,796 | 33,991 | 36,787 |
| Number of new staff | 1,372 | 2,511 | 3,883 | 224 | 1,360 | 1,584 |
| <u>Projected national estimate, 1970-71</u> | | | | | | |
| Number of staff ^{b/} | 15,174 | 24,416 | 39,590 | 2,814 | 35,041 | 37,855 |
| Number of new staff ^{c/} (demand). | 1,108 | 2,246 | 3,354 | 180 | 1,226 | 1,406 |
| <u>Information from 18 states, 1969-70</u> | | | | | | |
| Average of percents of new staff who were re-entering following an interruption of at least one year | 53.9% | 42.1% | ... | 57.1% | 72.4% | ... |
| <u>Projected national estimate, 1970-71</u> | | | | | | |
| Number of beginning staff (demand) | 511 | 1,300 | 1,811 | 77 | 338 | 415 |

^{a/} Based on an assumption that the reporting states are representative of all states. The numbers of teachers who were employed in these states in 1969-70 were 34.2 percent of elementary-school teachers and 33.7 percent of secondary-school teachers.

^{b/} Based on an assumption that growth in staff size will parallel growth rate of classroom teachers.

^{c/} Based on an assumption that the percent of staff who were new in 1969-70 will be changed in 1970-71 by the same percentage as projected in the growth in the number of classroom teachers.

addition to the number needed to replace persons leaving employment in these positions, to make significant progress toward the general standards of minimum quality in provision of staff for guidance and library services in fall 1970.

| Level of assignment | Number of new persons needed in 1970 to move toward high quality in provision of staff (in addition to those needed to <u>replace persons leaving</u>) | |
|----------------------|---|---------------------|
| | School librarians | Guidance counselors |
| Elementary schools . | 73,031 | 13,419 |
| Secondary schools .. | 37,420 | 10,443 |
| Total | 115,451 | 23,862 |

Adjusted Trend Criterion Estimate of Demand for School Librarians and for Guidance Counselors

Summarized in Table 17 are several types of information used to project an estimate of the actual demand for new school librarians and guidance counselors in 1970-71. Additional information is given in Appendix Tables B and C which show the variation among the states in the conditions which are used in these estimates. This variation, along with the possibility that conditions in the reporting states are not entirely representative of the national situation and the probability of more rapid growth of staff in these assignments than among classroom teachers, suggests that the estimates be interpreted only in very general terms.

The NEA Research Division survey of salaries of school personnel in 1968-69 provided estimates of 29,950 school librarians and 32,352

guidance counselors. The projection of the numbers of persons in these positions in 1969-70 based on information reported by the 15 states (Table 17) provides an estimate of 38,763 school librarians and 36,787 guidance counselors employed in public schools in 1969-70. The projected size of staff in 1969-70 summarized in Table 17 is more than one-fourth larger than the numbers of school librarians reported by the school districts and is about one-eighth larger than the numbers of guidance counselors reported in 1968-69.

The average of the percents of new staff who were re-entering the profession among the 18 reporting states is relatively high; on the average more than half of the new personnel at the elementary-school level, about 2 in 5 of the new secondary-school librarians, and 7 in 10 of the new secondary-school guidance counselors were re-entering employment in education following an interruption of at least one year. The rate of re-entry into these assignments may be different from other assignments in education because several may have been classroom teachers during their previous employment; classroom teaching experience provides valuable background for effective work in these positions. As a result, persons reported as re-entering may be entering as librarians or counselors for the first time. Therefore, the estimated number of both new and re-entering staff needed in 1970-71 are listed.

In summary, it seems likely that there will be actual demand in fall 1970 for at least 3,354 new librarians, of which 1,811 may have to be drawn from the supply of persons prepared to enter the profession for the first time. There will be a demand in fall 1970 for 1,406 new guidance counselors, of which 415 may need to be entering the profession for the first time.

SUPPLY COMPARED WITH DEMAND FOR NEW TEACHERS

ESTIMATES OF THE SUPPLY of teacher education graduates prepared to enter teaching positions in 1970 and estimates of the number of teaching positions to be filled by these graduates have been presented. A comparison of the numbers of positions included in these estimates provides a general indication of the adequacy of the present supply of beginning teachers and identifies the fields of specialization in which the estimated number of beginning teachers in supply and demand are out of balance. Also provided in this section are estimates of the status of the current supply of beginning teachers as compared with conditions in earlier years.

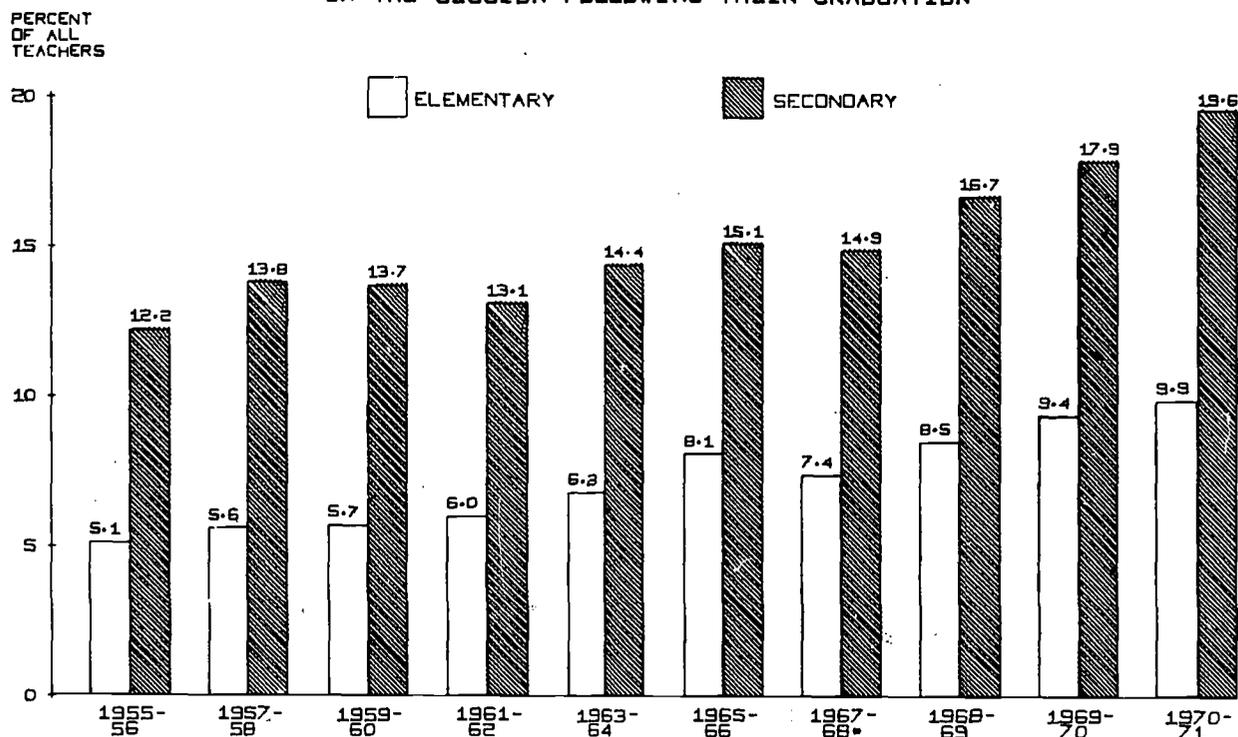
Supply of Graduates Compared with Demand

The number of new teachers employed and the number of graduates of teacher preparation programs in the reporting states provide an estimate of the status of the supply compared with demand based on the Adjusted Trend Criterion.

Information about the number of new teachers in 1969-70 and their assignments reported by 23 states was summarized in Table 15 in the preceding section. The numbers of new teachers reported by two states were so large in relation to the total numbers of teachers that it is

FIGURE III

TEACHER EDUCATION GRADUATES AS PERCENT OF ALL TEACHERS IN THE SESSION FOLLOWING THEIR GRADUATION



*A FEW TEACHER PREPARATION INSTITUTIONS IN TWO STATES DID NOT PARTICIPATE IN THE 1967-68 STUDY, MAKING THE ESTIMATED NUMBER OF GRADUATES IN 1967 FROM 2 TO 6 PERCENT LOWER THAN THE PROJECTED ACTUAL DATA.

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TABLE 18.--COMPARISON OF THE TOTAL NUMBER OF TEACHER EDUCATION GRADUATES WITH THE NUMBER OF NEW TEACHERS EMPLOYED IN 21 STATES, 1969-70

| Subject | Total number of teacher education graduates | Number of new teachers employed | Difference | Number of teacher education graduates as percent of new teachers employed |
|--|---|---------------------------------|------------|---|
| 1 | 2 | 3 | 4 | 5 |
| ELEMENTARY (total) | (31,143) | (34,868) | -3,725 | 89.3% |
| Regular instruction | 29,949 | 32,865 | -2,916 | 91.1 |
| Selected subjects: | | | | |
| Art | 379 | 434 | -55 | 87.3 |
| Foreign languages | 69 | 28 | +41 | 246.4 |
| Music | 370 | 744 | -374 | 49.7 |
| Physical and health education | 376 | 797 | -421 | 47.2 |
| SECONDARY (total) | (47,570) | (38,147) | (9,423) | (124.7) |
| Agriculture | 634 | 423 | 211 | 149.9 |
| Art | 1,720 | 1,069 | 651 | 160.9 |
| Business education | 3,607 | 1,992 | 1,615 | 181.1 |
| Distributive education | 173 | 151 | 22 | 114.6 |
| English language arts (total) | 9,222 | 8,835 | 387 | 104.4 |
| Foreign languages (total) | 2,660 | 1,753 | 907 | 151.7 |
| Home economics | 2,866 | 1,362 | 1,504 | 210.4 |
| Industrial arts | 1,549 | 1,353 | 196 | 114.5 |
| Junior high school (general) | 25 | ... | 25 | ... |
| Mathematics | 3,291 | 5,431 | -2,140 | 60.6 |
| Music | 2,391 | 1,499 | 892 | 159.5 |
| Physical and health education | 5,805 | 2,892 | 2,913 | 200.7 |
| Natural and physical sciences (total) ... | 3,265 | 4,543 | -1,278 | 71.9 |
| Social sciences (total) | 9,395 | 5,788 | 3,607 | 162.3 |
| Trade, industrial, vocational, technical . | 354 | 767 | -413 | 46.2 |
| Other | 613 | 289 | 324 | 212.1 |
| UNGRADED (total) | (3,929) | (4,358) | (-429) | (90.2) |
| Special education | 1,946 | 2,776 | -830 | 70.1 |
| Librarian | 611 | 1,102 | -491 | 55.4 |
| Guidance counselor | 1,372 | 480 | 892 | 285.8 |

likely that the number reported includes the teachers transferring to new assignments. The new teachers reported by these states represent about one-third of all teachers--a proportion which is twice as large as the average for the entire group of 23 states. Because of this discrepancy and because these two states are reporting these data for the first time this year, they are not included in the following summary. The total numbers of new teachers and the numbers of persons completing teacher education programs in 21 states in 1969 are listed in Table 18. Caution should be used in analyzing the data contained in Table 18 since the number of prospective teachers being educated in a given state may not represent the actual supply of beginning teachers for the state because of nonresident graduates and migration of resident graduates. Also limiting the accuracy of comparisons based on these figures is the possibility that experienced for-

mer teachers may be in greater supply, or demand, in some subjects than in others. This would modify the estimated relative demand for beginning teachers to fill the positions listed as being filled by new teachers.

Table 18 shows that the areas in which the supply of beginning teachers is least adequate include secondary-school mathematics, special education, secondary-school sciences, trade-industrial-vocational subjects, and elementary-school teaching. If the entire class of teacher education graduates in these 21 states entered teaching, the supply of beginning teachers in these subjects would not equal the demand for new teachers. However, if the number of persons expected to re-enter teaching in these subjects is considered, it is likely that the potential supply of beginning teachers is near the level of demand. The limited information about supply and demand for assignments in

elementary-school selected subjects suggests that these have an inadequate supply. However, the limitations in the availability of data about these assignments require that the results be interpreted with caution.

Trends in Supply and Demand in Reporting States

Information in Table 19 provides an estimate of trends in supply and demand conditions as observed in the reporting states in four-year intervals since 1948-49. The composition of participating states changes each year; this reduces the validity of comparisons over the years. Despite other indicators of a more adequate new supply this year, data from the 21 states reporting their new teachers suggests only a small change in adequacy of supply from that suggested by data forwarded from 23 states and the District of Columbia last year. The table shows that in the selected states the supply of qualified beginning elementary-school teachers has been rising toward the numbers of new teachers employed. Mathematics, which comprises 13 percent of the new high-school teachers, also has consistently been in relatively low supply in these selected years. The sciences, involving about 11 percent of new teachers, have been in relatively short supply. English language arts, involving about 22 percent of the new high-school teachers seems to have regressed slightly after a recent improvement in supply. Library science, involving 1 to 2 percent of the new high-school teachers, has been in relatively short supply in almost all of these years studied. Industrial arts, involving about 3 percent of the new high-school teachers seems to have lost a recent improvement in supply.

Supply of Beginning Teachers Compared with Total Number of Teachers Employed

An estimate of the present status of teacher supply and demand may be provided by a comparison over several years between the number of prospective teachers being graduated and the total number of teachers employed. Allowance should be made for changes in the influence of annual growth of the teaching staff and differences in the proportion of teachers leaving the profession. Normally the proportion of the total number of teachers represented by the number of graduates completing teacher education would not be expected to vary widely if the new supply is keeping pace with a steady enlargement of the demand for beginning teachers.

Shown in Table 20 are the percents of the total number of teachers represented by the number of teacher education graduates ready for

entry each year since 1955-56. During these years of marked growth in the size of the total staff, the number of prospective teachers has represented a gradually increasing proportion of the total staff size. A slight moderation in this proportion occurred at the high-school level in 1961-62, a year having a marked increase in the growth of the secondary-school staff. The proportions reached record levels in 1968-69 and have established new records each succeeding year.

Supply of New Teachers Compared with Demand (QCE)

The estimated total supply of new teachers compared with the estimated total demand for new teachers based on the Quality Criterion is shown as follows:

| | <u>Number of new teachers</u> | | |
|---|-------------------------------|------------------|----------------|
| | <u>Elementary</u> | <u>Secondary</u> | <u>Total</u> |
| Estimated demand (Quality Criterion) | 255,350 | 191,150 | 446,500 |
| Estimated supply* ... | <u>133,378</u> | <u>155,956</u> | <u>289,334</u> |
| Shortage | 121,972 | 35,194 | 157,166 |

*Re-entry of former teachers equal to 3.2 percent of the number of full-time elementary- and 3.0 percent of the number of full-time secondary-school teachers in fall 1969. Entry into teaching by 83.2 percent of graduates prepared to teach at the elementary-school level and by 75.0 percent of graduates prepared to teach at the secondary-school level. Supply in special education apportioned between elementary and secondary.

The estimate shows a shortage of 157,000 teachers with the need being critical at the elementary-school level. It is difficult to estimate the number of qualified teachers who may be available for entry in the event that schools were financially able and had the facilities to employ the 446,500 persons estimated in the demand for new teachers. Therefore, this estimated shortage should be interpreted only in general terms.

Supply Compared with Demand (ATCE) for Beginning Teachers

A very general estimate of the status of teacher supply and demand in 21 states in 1969 is provided in Tables 18 and 19. The problem of nonresident enrollments and migration has reduced the precision of estimates of the supply of beginning teachers for this group of

TABLE 19.--TEACHER EDUCATION GRADUATES AS PERCENT OF NEW TEACHERS EMPLOYED IN SELECTED STATES, 4-YEAR INTERVALS BETWEEN 1948-49 AND 1968-69, AND IN 1969-70

| Level and subject | Percent of new teachers represented by number of teacher education graduates | | | | | | |
|--|--|----------------------------------|------------------------|---------------|--------------|--------------|---------|
| | 1948-49 | 1952-53 | 1956-57 | 1960-61 | 1964-65 | 1968-69 | 1969-70 |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| ELEMENTARY (total) | 29.7% | 55.6% | 48.0% | 58.2% | 70.3% | 88.5% | 89.3% |
| SECONDARY-SCHOOL SUBJECTS (total) ... | 111.7 | 131.7 | 111.4 | 119.1 | 131.3 | 126.0 | 121.2 |
| Agriculture | 136.6 | 163.8 | 163.9 | 184.3 | 176.8 | 195.8 | 149.9 |
| Art | 117.1 | 264.5 | 139.5 | 154.4 | 165.4 | 140.9 | 160.9 |
| Business education | 103.0 | 147.1 | 134.2 | 158.5 | 168.7 | 190.2 | 181.1 |
| English | 95.8 | 105.9 | 73.0 | 73.7 | 95.9 | 119.6 | 104.4 |
| Foreign languages | 171.1 | 213.3 | 120.1 | 76.1 | 106.6 | 140.6 | 151.7 |
| Home economics | 114.6 | 137.9 | 128.3 | 141.7 | 170.6 | 180.3 | 210.4 |
| Industrial arts | 103.9 | 166.5 | 123.5 | 169.0 | 121.3 | 150.9 | 114.5 |
| Journalism | 103.3 | 82.1 | 78.4 | 59.2 | 93.8 | a/ | a/ |
| Library science | 65.5 | 69.6 | 35.0 | 27.9 | 39.1 | 170.0 | 55.4 |
| Mathematics | 73.6 | 108.8 | 58.2 | 73.1 | 79.6 | 79.1 | 60.6 |
| Music | 105.9 | 164.9 | 127.2 | 174.5 | 171.0 | 170.1 | 159.5 |
| Physical education--men | 148.1 | 278.9 | 185.0 | 286.0 | 283.0 | 206.7 | 200.7 |
| Physical education--women | 138.6 | 169.6 | 126.3 | 117.0 | 128.7 | | |
| General science | 62.3 | 79.4 | 54.8 | 67.8 | 50.7 | 87. | 71.9 |
| Biology | 114.8 | 270.9 | 199.3 | 143.3 | 246.2 | | |
| Chemistry | 135.9 | 200.0 | 107.8 | 107.3 | 112.2 | | |
| Physics | 65.1 | 120.1 | 80.2 | 79.3 | 119.0 | 175.6 | 162.3 |
| Social studies | 157.1 | 207.3 | 164.1 | 153.1 | 186.4 | | |
| Speech | 126.2 | 313.8 | 256.9 | 260.8 | 469.5 | a/ | a/ |
| Other (special education, junior high school, vocational, distributive education, guidance) .. | ... | 246.7 | 40.8 | 73.6 | 87.0 | 45.8 | 111.7 |
| Number of states reporting | 21 | 26 + Alaska Hawaii D.C. | 32 + Alaska D.C. | 26 + D. C. | 27+ D. C. | 23+ D. C. | 21 |

a/ Included with English.

states. If it is assumed that the reporting states are representative of the nation in the pattern of demand for new teachers among the subject fields, this pattern may be used with the national estimated demand for beginning teachers to obtain a national estimate of demand which is comparable with the national summary of the supply of beginning teachers by subject areas.

Listed in Table 21 are the estimated numbers of beginning teachers who will be available for entry into classrooms in fall 1970, the estimated demand for beginning teachers, the difference between the estimated supply and the estimated demand for beginning teachers, and the estimated number of former teachers expected to return to classrooms in fall 1970. The estimates of demand are based on the Adjusted Trend Criterion which projects the actual number of positions to be filled in

fall 1970. The differences listed in columns 5 and 6 show the adequacy of the 1970 supply of beginning teachers in each assignment. The estimates in columns 3 and 5 are based on an assumption that the average rates of teacher turnover and re-entry are equally applicable among the subject areas. In subjects in which the rate of teacher separation is about average and the re-entry rate is lower than average, the demand for beginning teachers would be greater than the level estimated. For example, the supply of qualified personnel in the pool of former teachers may not be as adequate in some subjects as in others. In the subjects having a relatively limited supply of qualified former teachers the demand for beginning teachers would be increased.

Also, changes in the general status of employment opportunities for persons having the

college degree may influence the turnover and re-entry rate observed in earlier years. The reduced availability of positions in other occupations may decrease the loss to the profession of teachers presently employed as well as increase the number of former teachers who may be considering re-entry into the profession. This general economic condition may decrease the demand for beginning teachers below the levels estimated in both column 3 and column 4 of Table 21. The numbers of former teachers expected to re-enter classrooms in

fall 1970 following an interruption of at least one year are listed in columns 7 and 8 of Table 21. These show the estimated additional numbers of beginning teachers which would be needed if no former teachers re-entered classrooms in fall 1970.

The range of error in the information and in the assumptions leading to these estimates of supply and demand for beginning teachers requires that the numerical data be interpreted only in general terms. Therefore, the

TABLE 20.--ESTIMATES OF THE TOTAL NUMBER OF PUBLIC-SCHOOL TEACHERS AND THE NUMBER OF TEACHER EDUCATION GRADUATES READY FOR EMPLOYMENT EACH YEAR SINCE 1955-56

| Session | Total teachers | Elementary | | Total teachers | Secondary | |
|---------------|-------------------------|--|------------------|-----------------------|--|------------------|
| | | Teacher education graduates of previous year | | | Teacher education graduates of previous year | |
| | | Number | Percent of total | | Number | Percent of total |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1955-56 | 733,000 | 37,712 | 5.1% | 408,000 | 49,697 | 12.2% |
| 1956-57 | 751,000 | 40,801 | 5.4 | 447,000 | 56,785 | 12.7 |
| 1957-58 | 786,000 | 44,029 | 5.6 | 473,000 | 65,062 | 13.8 |
| 1958-59 | 815,000 | 45,318 | 5.3 | 491,000 | 69,093 | 14.1 |
| 1959-60 | 832,000 | 47,836 | 5.7 | 524,000 | 71,585 | 13.7 |
| 1960-61 | 858,000 | 52,630 | 6.1 | 550,000 | 77,573 | 14.1 |
| 1961-62 | 869,000 | 51,866 | 6.0 | 592,000 | 77,322 | 13.1 |
| 1962-63 | 886,000 | 57,854 | 6.5 | 621,000 | 84,489 | 13.6 |
| 1963-64 | 900,000 | 61,979 | 6.8 | 669,000 | 96,378 | 14.4 |
| 1964-65 | 940,000 | 72,581 | 7.7 | 708,000 | 101,552 | 14.3 |
| 1965-66 | 965,000 | 77,773 | 8.1 | 746,000 | 112,436 | 15.1 |
| 1966-67 | 1,006,000 | 77,703 ^{a/} | 7.7 | 783,000 | 122,208 ^{a/} | 15.6 |
| 1967-68 | 1,040,000 ^{b/} | 76,607 ^{c/} | 7.4 | 815,000 ^{b/} | 121,554 ^{a/c/} | 14.9 |
| 1968-69 | 1,076,000 ^{b/} | 91,336 ^{a/} | 8.5 | 860,000 ^{b/} | 143,611 ^{a/} | 16.7 |
| 1969-70 | 1,108,000 ^{b/} | 103,654 ^{a/} | 9.4 | 906,000 ^{b/} | 162,607 ^{a/} | 17.9 |
| 1970-71 | 1,115,000 ^{d/} | 109,888 ^{a/} | 9.9 | 934,000 ^{d/} | 182,746 ^{a/} | 19.6 |

Source of staff size: U.S. Department of Health, Education, and Welfare, Office of Education. Projections of Educational Statistics to 1977-78. Washington, D.C.: Government Printing Office, 1969. Table 23. (Fall staff size includes number of part-time teachers.)

^{a/} Persons prepared to teach specific subjects, librarians, and guidance counselors are classified as secondary, consistent with practice in earlier years. Persons prepared to enter employment as school psychologists, school social workers, school nurses, and other ungraded assignments are not included.

^{b/} U.S. Department of Health, Education, and Welfare, Office of Education. Statistics of Public Elementary and Secondary Day Schools, Fall 1969. Washington, D.C.: Government Printing Office, 1970. Table 1.

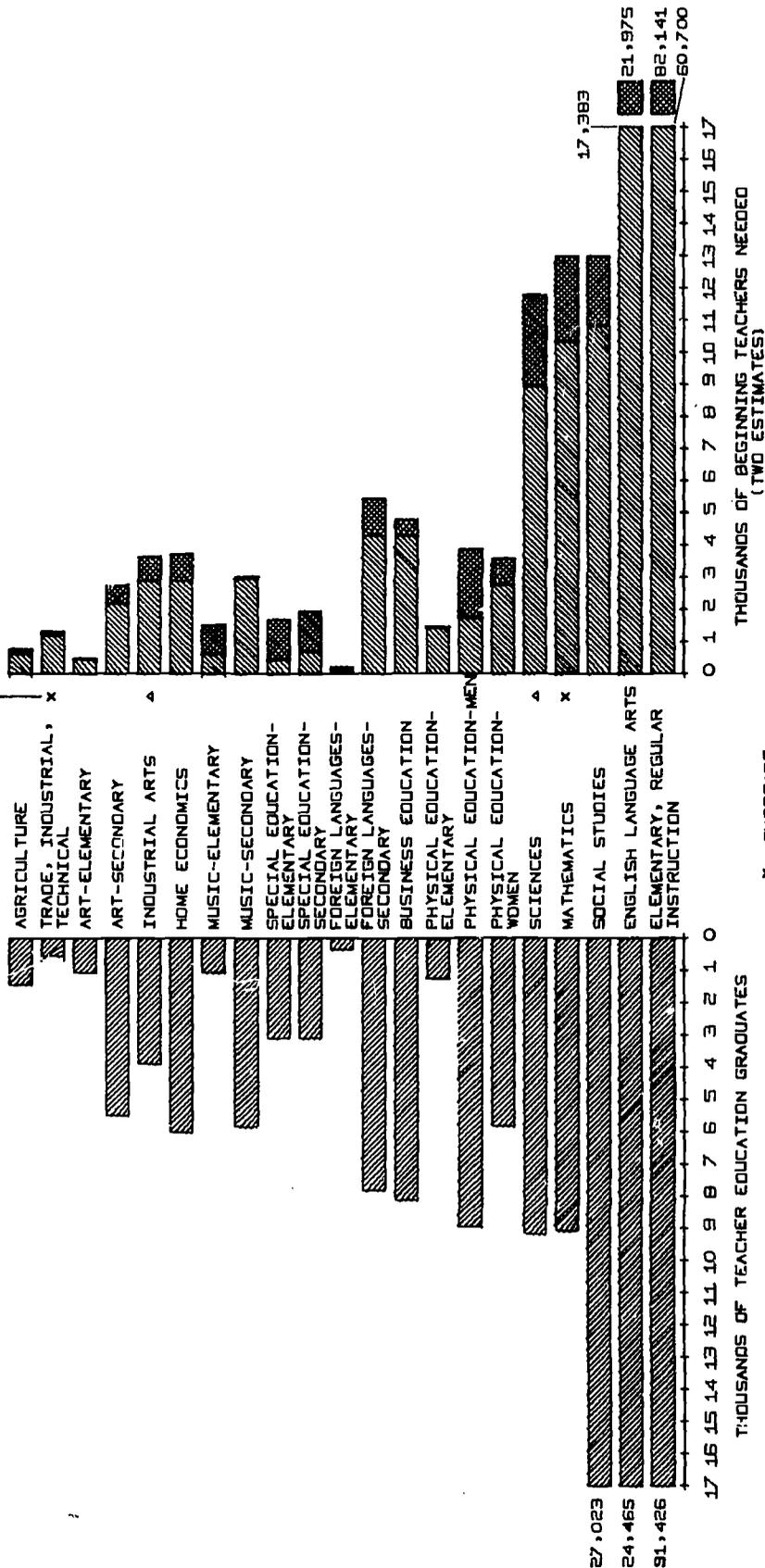
^{c/} Estimate may be from 2 to 6 percent lower than actual numbers owing to incomplete reports in two states.

^{d/} Projection.

FIGURE IV
 SUPPLY AND DEMAND FOR BEGINNING TEACHERS, BY TYPE OF
 ASSIGNMENT, ADJUSTED TREND CRITERION ESTIMATE, 1970

DEMAND

SUPPLY



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numerical differences provide only a suggestion of the comparative impact of supply and demand conditions in the various subject areas.

A summary of the ranked placement of the subject areas of teacher preparation in terms of the estimated condition of the supply and demand for beginning teachers is given in Table 22. The estimate of general condition is based on a combination of the information listed in columns 2 through 6.

The numerical differences between the estimated supply and the two estimates of the demand for beginning teachers (columns 2 and 3) show the condition of each assignment if the factors related to supply and demand operate as reported last year. The enlargement, rate of teacher turnover, and extent of re-entry of staff were influenced by some shortages in 1969 as well as continuation of the chronic shortages of qualified persons in several assignments. Possibly the pattern of the numbers of

TABLE 21.--COMPARISON OF THE ESTIMATED SUPPLY OF BEGINNING TEACHERS WITH THE ADJUSTED TREND CRITERION ESTIMATE OF DEMAND FOR BEGINNING TEACHERS AND FOR NEW TEACHERS IN 1970, BY ASSIGNMENT

| Assignment | Estimated supply of beginning teachers | Estimated demand for beginning teachers | | Difference between supply and demand for beginning teachers | | Number of former teachers expected to re-enter classrooms | |
|--|--|---|---------------------------------|---|---------------------------------|---|---------------------------------|
| | | Distribution last year | Estimated national distribution | Distribution last year | Estimated national distribution | Distribution last year | Estimated national distribution |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| ELEMENTARY (total) | (98,278) | (60,700) | (82,141) | (37,578) | (16,137) | (35,100) | (72,676) |
| Regular instruction. | 91,426 | 55,480 | 70,918 | 35,946 | 12,508 | 32,082 | 69,984 |
| Selected subjects: | | | | | | | |
| Art | 1,074 | 486 | 484 | 588 | 590 | 280 | 194 |
| Foreign language. | 344 | 60 | 198 | 284 | 146 | 36 | 100 |
| Music | 1,073 | 1,517 | 626 | -444 | 447 | 878 | 909 |
| Physical and health education. | 1,255 | 1,457 | 1,455 | -202 | -200 | 842 | 1,219 |
| Special education | 3,106 | 1,700 | 460 | 1,406 | 2,646 | 982 | 270 |
| SECONDARY (total) | (128,956) | (78,300) | (95,468) | (50,656) | (33,488) | (27,000) | (53,255) |
| Agriculture | 1,441 | 783 | 625 | 658 | 816 | 270 | 458 |
| Art | 5,507 | 2,192 | 2,747 | 3,315 | 2,760 | 756 | 1,116 |
| Business education . | 8,120 | 4,306 | 4,799 | 3,814 | 3,321 | 1,486 | 3,405 |
| Distributive education | 439 | 235 | ... | 204 | ... | 81 | ... |
| English language arts | 24,465 | 17,383 | 21,975 | 7,082 | 2,490 | 5,994 | 12,850 |
| Foreign language ... | 7,832 | 4,306 | 5,447 | 3,526 | 2,385 | 1,486 | 3,556 |
| Home economics | 6,029 | 2,897 | 3,717 | 3,132 | 2,312 | 999 | 2,873 |
| Industrial arts ... | 3,893 | 2,897 | 3,638 | 996 | 255 | 999 | 2,508 |
| Junior high school . | 481 | a/ | ... | ... | ... | ... | ... |
| Mathematics | 9,070 | 10,336 | 12,970 | -1,266 | -3,900 | 3,564 | 6,622 |
| Music | 5,841 | 2,975 | 3,035 | 2,866 | 2,806 | 1,026 | 1,941 |
| Physical and health education--men ... | 8,959 | 3,882 | 1,760 | 5,077 | 7,199 | 1,336 | 1,825 |
| Physical and health education--women . | 5,814 | 2,774 | 3,569 | 3,040 | 2,245 | 959 | 1,337 |
| Natural and physical sciences | 9,175 | 8,926 | 11,767 | 249 | -2,592 | 3,078 | 6,764 |
| Social studies | 27,023 | 10,805 | 12,969 | 16,218 | 14,054 | 3,726 | 5,664 |
| Trade, industrial, vocational, technical | 550 | 1,331 | 1,206 | -781 | -656 | 459 | 602 |
| Special education .. | 3,100 | 1,958 | 700 | 1,142 | 2,400 | 675 | 287 |
| Other subjects | 1,217 | 314 | 4,544 | 903 | 3,327 | 106 | 271 |

a/ Information from 11 states was distributed equally among English language arts, mathematics, natural and physical sciences, and social sciences.

TABLE 22.--SUMMARY OF ESTIMATED SUPPLY COMPARED WITH THE ADJUSTED TREND CRITERION ESTIMATE OF DEMAND FOR BEGINNING TEACHERS IN 1970, ELEMENTARY-SCHOOL AND SECONDARY-SCHOOL SUBJECT AREAS, BY GENERAL CONDITION

| Assignment | Numerical difference in the estimated supply of beginning teachers and estimated demand based on | | Percent of teacher education graduates entering the profession | Estimated additional supply if 80.0 percent of graduates entered | Additional demand if re-entry rate is reduced by 10% | General condition |
|--|--|-------------------|--|--|--|-------------------|
| | Percent distribution in 1969 | National estimate | | | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| Mathematics | -1,266 | -3,900 | 71.2% | 605 | 356 | Shortage |
| Trade, industrial, vocational, technical . | -781 | -656 | 41.0 | 37 | 46 | Shortage |
| Natural and physical sciences | +249 | -2,592 | 63.9 | 612 | 308 | Low supply |
| Industrial arts | 996 | 255 | 70.2 | 260 | 100 | Low supply |
| Special education | | | | | | |
| Elementary | 1,406 | 2,646 | 68.3 | ... | 98 | Near balance |
| Secondary | 1,142 | 2,400 | 68.3 | ... | 68 | Near balance |
| Distributive education. | 204 | ... | 69.1 | 29 | 8 | Near balance |
| Agriculture | 658 | 816 | 52.7 | 96 | 27 | Adequate supply |
| Art | | | | | | |
| Elementary | 588 | 590 | 57.4 | ... | 28 | Adequate supply |
| Secondary | 3,315 | 2,760 | 63.2 | 367 | 76 | Adequate supply |
| Business education ... | 3,814 | 3,321 | 58.6 | 541 | 149 | Adequate supply |
| Elementary, regular instruction | 35,946 | 12,508 | 74.5 | ... | 3,208 | Adequate supply |
| English language arts . | 7,082 | 2,490 | 63.5 | 1,631 | 599 | Adequate supply |
| Foreign languages | | | | | | |
| Elementary | 284 | 146 | 77.0 | ... | 4 | Adequate supply |
| Secondary | 3,526 | 2,385 | 59.7 | 522 | 149 | Adequate supply |
| Home economics | 3,132 | 2,312 | 59.2 | 402 | 100 | Adequate supply |
| Music | | | | | | |
| Elementary | -444 | 447 | 64.8 | ... | 88 | Adequate supply |
| Secondary | 2,866 | 2,806 | 69.8 | 389 | 103 | Adequate supply |
| Physical and health education | | | | | | |
| Elementary | -202 | -200 | 70.5 | ... | 84 | Adequate supply |
| Secondary--Men | 5,077 | 7,199 | 65.1 | 597 | 134 | Adequate supply |
| Women | 3,040 | 2,245 | 68.5 | 388 | 96 | Adequate supply |
| Social studies | 16,218 | 14,054 | 55.2 | 1,802 | 373 | Adequate supply |

new teachers in the assignments would have been different if the supply of beginning teachers were more than adequate for each assignment.

The percent of qualified graduates entering the profession last year (column 4) provides an indication of the relative supply-demand condition among the assignments as well as a view of possible availability of qualified persons from earlier graduating classes. The size of these pools of qualified beginning teachers may be least adequate in the subject areas having the highest proportions of graduates entering the profession immediately subsequent to their graduation. The reduction in recent years of

the entry rate of graduates prepared to teach suggests that these pools are enlarging at an accelerated rate.

The additional supply of beginning teachers from the 1970 graduating class if 80.0 percent of the graduates enter teaching (column 5) shows an estimate of the potential supply which may be tapped, if attractive positions are open. The rate projected, 80.0 percent, is above the average reported for all teacher education graduates in recent years; but is lower than that observed among graduates prepared to enter elementary-school assignments during periods of shortage. It is assumed that this rate may be

attained among graduates prepared for any assignment if employment opportunities are available and attractive.

The information in column 6 shows the additional demand for beginning teachers which could result from a small change in the estimated re-entry rate of former teachers. The reduction of 10 percent in the estimated re-entry rate would deepen the shortage of beginning mathematics teachers by about 356 persons. This and the relatively small numbers involved in the other assignments provide a basis for interpreting the significance of the estimated numerical comparison of the supply and demand for beginning teachers. The estimate in column 6 is related to the numerical estimate in column 2 in that both are based on the assumption that the rate of re-entry of former teachers is the same for each teaching assignment.

The summary in column 7 of Table 22 shows that based on the Adjusted Trend Criterion Estimate of demand the shortage of new teachers is continuing in mathematics and in trade-industrial-vocational-technical subjects. Limited supply compared with demand is estimated in the total natural and physical sciences and in industrial arts. Comparisons based on limited information suggest that the supply of

beginning teachers is not as large as needed in subject-area assignments in elementary schools. Local shortages may be observed in other assignments despite the estimate of adequate supply for beginning teachers in these fields.

The estimates of conditions shown in Table 22 are based on a continuation of gradual movement in the improvement in educational staffing toward the standards described in the Quality Criterion Estimate. Acceleration of movement toward improved quality will increase the demand for beginning teachers.

Summary of Comparisons Between Estimates of Teacher Supply and Demand

Table 23 summarizes the comparisons between the estimated supply of beginning teachers and the three estimates of demand for beginning teachers. The estimated total supply of beginning teachers is greater than the two estimates of the demand projected by the Adjusted Trend Criterion Estimate but is inadequate to meet the requirements of the Quality Criterion Estimate. However, shortages are estimated in mathematics and in vocational-technical courses. Low supply is estimated in the sciences and in industrial arts. Intensification of shortages

**FIGURE V
ESTIMATES OF SUPPLY OF TEACHER EDUCATION GRADUATES
AND DEMAND FOR BEGINNING TEACHERS, 1970-71**

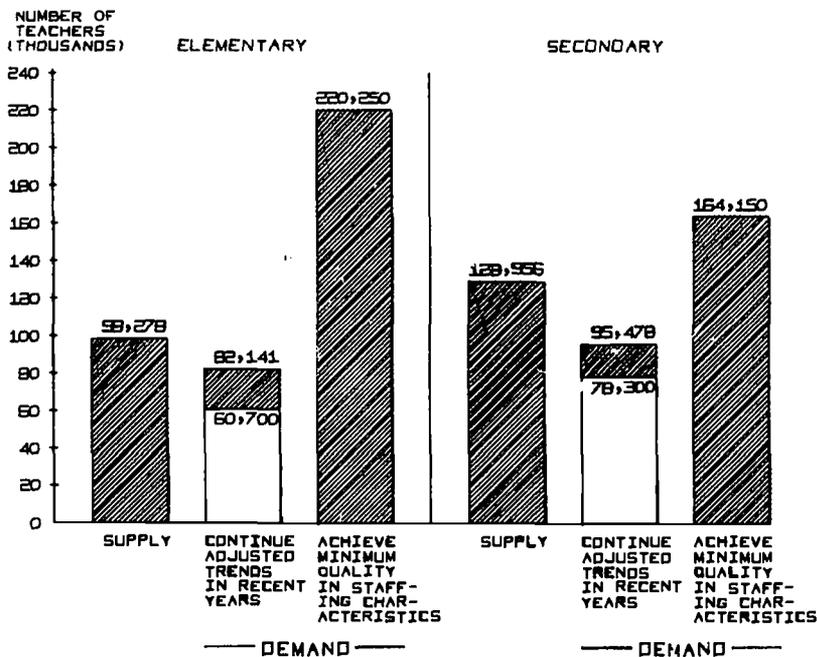


TABLE 23.--SUMMARY OF THE COMPARISONS OF ESTIMATED SUPPLY WITH THE ESTIMATES OF DEMAND FOR BEGINNING TEACHERS, 1970-71

| Level and criterion for estimate | Supply of beginning teachers | Demand for beginning teachers | Difference | Supply as percent of demand |
|---|------------------------------------|-------------------------------------|------------|-----------------------------------|
| 1 | 2 | 3 | 4 | 5 |
| ELEMENTARY SCHOOL | | | | |
| Adjusted Trend Criterion | | | | |
| Distribution of new teachers last year | 98,278 | 60,700 | +37,578 | 161.9% |
| Estimated national distribution | 98,278 | 82,141 | +16,137 | 119.6 |
| Quality criterion | 98,278 | 220,250 | -121,972 | 44.6 |
| SECONDARY SCHOOL | | | | |
| Adjusted Trend Criterion | | | | |
| Distribution of new teachers last year | 128,956 | 78,300 | +50,656 | 164.7% |
| Estimated national distribution | 128,956 | 95,468 | +33,488 | 135.1 |
| Quality criterion | 128,956 | 164,150 | -35,196 | 78.6 |
| TOTAL | | | | |
| Adjusted Trend Criterion | | | | |
| Distribution of new teachers last year | 227,234 | 139,000 | +88,234 | 163.5 |
| Estimated national distribution | 227,234 | 177,609 | +49,625 | 127.9 |
| Quality criterion | 227,234 | 384,400 | -157,166 | 59.1 |

estimated in these fields and creation of shortages in some others may result from acceleration in progress toward improved quality in educational staffing.

Supply and Demand for School Librarians and Guidance Counselors

The estimated supplies of beginning school librarians and guidance counselors were listed in Table 1B. The Quality Criterion Estimate of demand and the Adjusted Trend Criterion Estimate of demand for new persons in these assignments were reviewed. The table in column 2 summarizes and compares these estimates.

These estimates show that the supply of beginning staff for these positions is far below the numbers needed to attain minimum quality in this phase of educational staffing. However, it is estimated that the supply of beginning librarians expected to enter the profession will be slightly lower than the demand for them to fill positions in fall 1970. The estimated supply of beginning guidance counselors seems to be adequate for the projected demand for them in fall 1970.

| | <u>Number of staff</u> | |
|---|--------------------------|----------------------------|
| | <u>School librarians</u> | <u>Guidance counselors</u> |
| Estimated supply of beginning staff in fall 1970* | 1,625 | 2,959 |
| Quality Criterion Estimate of demand for new staff, exclusive of the number needed to replace those who leave . | 115,420 | 23,862 |
| Difference | 113,795 | 20,903 |
| Adjusted Trend Criterion Estimate of demand in 1970 | | |
| For new staff | 3,354 | 1,406 |
| For beginning staff | 1,811 | 415 |
| Difference | -186 to -1,729 | +1,553 to +2,544 |

*Based on entry of 75.0 percent of persons completing preparation to become school librarians or guidance counselors.

EDUCATION COMPLETED BY PUBLIC-SCHOOL TEACHERS

THE COMPLETION OF a bachelor's degree with an emphasis on preparation for teaching has been widely accepted as a minimum educational requirement for becoming an effective teacher. The completion of a master's degree is increasingly being used as the minimum level of educational preparation to be expected of persons considered to be fully qualified teachers. This section reviews the status and trends in the accomplishment of these two levels of academic preparation among public-school teachers. Also given is information from the states that reported information about the highest level of education completed by their new teachers and by the entire teaching staffs of their public elementary and secondary schools.

Trends in Academic Preparation Completed

Estimated distributions of public-school teachers by their highest earned degrees as established in 11 national sampling surveys are given in Table 24. The 1955-56 survey contained a slightly higher than representative percent of NEA members which may have introduced a slight bias toward higher preparation. During the past 10 years, marked improvement is noted in the proportions of elementary-school teachers

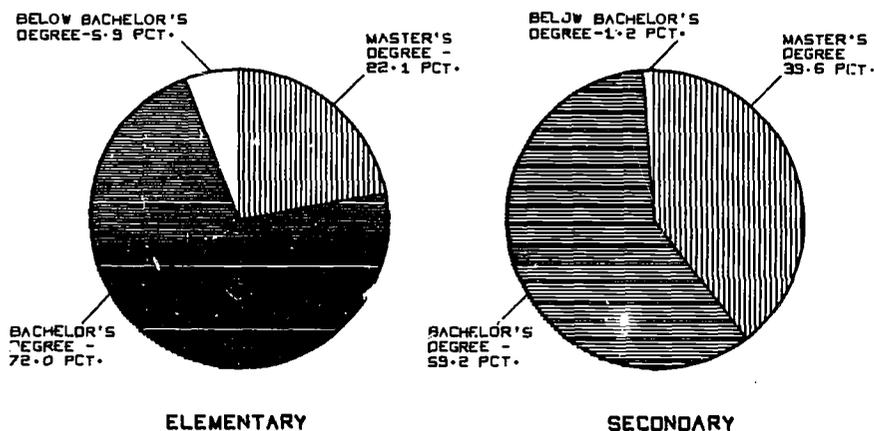
who have completed at least the bachelor's degree. However, the pace of this trend was reduced between 1965-66 and 1966-67; possibly this is an outcome of the unusual shortages reported in fall 1966. At the secondary-school level near the end of this 10-year period there has been improvement in the proportion of public-school teachers who have earned the master's degree.

Differences Among the States

Among the 28 states reporting information for 1969-70, marked differences are observed in the proportion of elementary-school teachers who have completed the bachelor's degree, shown in Table 25. Six states report that more than 10 percent do not have the bachelor's degree.

Wide differences are noted among the 28 reporting states in the proportion of elementary-school teachers who have completed the master's degree, also shown in Table 25. Four of these states report that more than one-fourth have the master's degree. On the other hand, in five states less than 10 percent have completed the master's degree. Three states report more

FIGURE VI
ESTIMATED NATIONAL DISTRIBUTION OF PUBLIC-SCHOOL TEACHERS BY THEIR HIGHEST LEVEL OF ACADEMIC PREPARATION, 1969-70



NEA RESEARCH DIVISION

TABLE 24.--DISTRIBUTION OF PUBLIC-SCHOOL TEACHERS BY HIGHEST DEGREE EARNED, SELECTED YEARS

| School year | All teachers | | | Elementary-school teachers | | | Secondary-school teachers | | |
|-------------|--------------|-------------------|---------------------------|----------------------------|-------------------|---------------------------|---------------------------|-------------------|---------------------------|
| | No degree | Bachelor's degree | Master's or higher degree | No degree | Bachelor's degree | Master's or higher degree | No degree | Bachelor's degree | Master's or higher degree |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 1930-31 ... | 70.0% | (— 30.0% —) | ... | ... | ... | ... | ... | ... | ... |
| 1947-48 ... | 40.6 | 43.3% | 15.1% | ... | ... | ... | ... | ... | ... |
| 1955-56 ... | 22.2 | 53.2 | 24.6 | 34.1% | 53.1% | 12.8% | 3.0% | 53.3% | 43.7% |
| 1960-61 ... | 14.6 | 61.9 | 23.5 | 23.8 | 62.2 | 14.0 | 2.3 | 61.6 | 36.1 |
| 1962-63 ... | 10.9 | 64.5 | 24.6 | 17.6 | 65.0 | 17.4 | 1.9 | 63.9 | 34.2 |
| 1964-65 ... | 8.6 | 67.3 | 24.1 | 15.1 | 70.8 | 14.1 | 1.7 | 63.5 | 34.8 |
| 1965-66 ... | 6.6 | 67.2 | 26.2 | 10.9 | 70.9 | 18.2 | 2.1 | 63.2 | 34.7 |
| 1966-67 ... | 6.1 | 68.2 | 25.7 | 10.3 | 72.9 | 16.8 | 1.5 | 63.0 | 35.5 |
| 1967-68 ... | 4.7 | 67.4 | 27.9 | 8.0 | 73.2 | 18.9 | 1.4 | 61.4 | 37.2 |
| 1968-69 ... | 4.5 | 65.2 | 30.3 | 7.8 | 71.1 | 21.1 | 1.1 | 59.1 | 39.8 |
| 1969-70 ... | 3.6 | 65.8 | 30.6 | 5.9 | 72.0 | 22.1 | 1.2 | 59.2 | 39.6 |

Sources:

1930-31: Evenden, E. S. National Survey of the Education of Teachers: Summary and Interpretation. U. S. Department of the Interior, Office of Education, Bulletin 1933, No. 10, Vol. VI. Washington, D. C.: Government Printing Office, 1935.

1947-48: National Education Association, Research Division. "Teachers in the Public Schools." Research Bulletin 27: 133; December 1949.

1955-56: National Education Association, Research Division. "The Status of the American Public-School Teacher." Research Bulletin 35: 15; February 1957.

1960-61: National Education Association, Research Division. The American Public-School Teacher, 1960-61. Research Monograph 1963-M2. Washington, D. C.: the Association, April 1963. p. 91.

1962-63 through 1969-70: National Education Association, Research Division, unpublished status information obtained from periodic sampling surveys.

than 1 percent having completed less than two years of college preparation.

Information about the preparation level of secondary-school teachers by state is shown also in Table 25. In one of the 28 reporting states all have the bachelor's or higher degree, and in nine additional states the small numbers lacking this level of preparation represent less than 1 percent of the number of secondary-school teachers. At the other extreme, in three states more than 1 percent have not completed two years of college preparation.

The percents of secondary-school teachers having at least the master's degree range from 15.3 to 68.0. In two of the 26 reporting states, more than half have completed at least the master's degree. On the other hand, in four of these states less than one-fourth have completed this level of preparation.

Preparation of New Teachers

The level of preparation completed by teachers entering or re-entering full-time employment provides an indication of the extent school

systems are able to find fully qualified persons to fill vacated or new positions. An inadequate supply of qualified teachers or limited attraction of employment in education for qualified personnel may be reflected in the employment of persons having below-average or sub-standard qualifications. The comparison of the educational qualifications of new teachers with those of the total number of teachers in service provides an indication of whether the persons being employed are raising or lowering the quality of the total staff.

Table 26 shows the percents of new teachers in elementary and secondary schools who have completed selected levels of preparation in each of the 24 states reporting. In only six states does the percent of new elementary-school teachers having the master's degree exceed 10 percent of all new elementary-school teachers. At the secondary-school level, possession of the master's degree by more than 10 percent of the new teachers is reported by 10 of the 24 states.

At the other extreme in adequacy of preparation, the percent of new elementary-school teachers having less than two years of college preparation exceeded 1 percent in three of the

TABLE 25.—PERCENT OF ALL ELEMENTARY AND ALL SECONDARY-SCHOOL TEACHERS IN 28 STATES HAVING MASTER'S DEGREE, BACHELOR'S OR HIGHER DEGREE, AND LESS THAN TWO YEARS' COLLEGE, 1969-70

| State | All elementary-school teachers | | | | | All secondary-school teachers | | | | |
|------------------------|--------------------------------|------|-----------------------------|------|----------------------------|-------------------------------|------|-----------------------------|------|----------------------------|
| | Master's or higher degree | | Bachelor's or higher degree | | Less than 2 years' college | Master's or higher degree | | Bachelor's or higher degree | | Less than 2 years' college |
| | Percent | Rank | Percent | Rank | | Percent | Rank | Percent | Rank | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Alabama | 17.0% | 10.5 | 93.5% | 19 | 0.8% | 29.3% | 12 | 97.7% | 21 | 0.5% |
| Arkansas | 15.9 | 13 | 97.1 | 13 | * | 26.2 | 20 | 99.1 | 9.5 | * |
| Colorado | 19.5 | 8 | 99.1 | 5 | 0.1 | 36.7 | 7 | 99.3 | 7 | 0.1 |
| Connecticut | 28.7 | 3 | 97.4 | 12 | 0.2 | 47.6 | 3 | 99.4 | 5.5 | 0.1 |
| Delaware | 15.0 | 16 | 95.5 | 16 | a/ | 32.7 | 10 | 96.5 | 2.5 | a/ |
| Georgia | 11.3 | 20 | 98.6 | 7 | ... | 31.4 | 11 | 98.7 | 13 | ... |
| Hawaii ^{b/} | 8.8 | 24 | 98.8 | 6 | ... | 17.1 | 25 | 99.2 | 8 | ... |
| Idaho | a/ | ... | 84.5 | 26.5 | 0.1 | a/ | ... | 98.0 | 19.5 | 0.1 |
| Illinois ^{c/} | 15.6 | 14 | 100.0 | 1 | ... | 38.2 | 5 | 100.0 | 1 | ... |
| Kansas | 43.5 | 1 | 96.2 | 15 | 0.4 | 63.5 | 2 | 99.4 | 5.5 | ... |
| Louisiana | 20.0 | 7 | 93.7 | 18 | 0.6 | 33.1 | 8 | 98.3 | 11.5 | 0.2 |
| Maryland | 13.0 | 19 | 90.0 | 22 | 2.0 | 25.8 | 21 | 97.2 | 22.5 | 0.7 |
| Massachusetts | 17.3 | 9 | 92.8 | 20 | ... | 27.0 | 17 | 99.1 | 9.5 | ... |
| Mississippi | 10.6 | 22 | 97.5 | 11 | 0.1 | 15.3 | 26 | 98.3 | 16 | * |
| Missouri ^{d/} | 21.3 | 6 | 96.5 | 14 | 0.3 | 41.0 | 4 | 97.2 | 22.5 | 2.0 |
| Nevada | 17.0 | 10.5 | 94.0 | 17 | a/ | 68.0 | 1 | 98.2 | 17.5 | a/ |
| New Hampshire | 9.2 | 23 | 84.5 | 26.5 | 0.2 | 25.2 | 22 | 96.1 | 26 | 0.9 |
| New Mexico | 24.9 | 5 | 99.9 | 2 | ... | 38.1 | 6 | 99.6 | 3 | 0.2 |
| Oklahoma | 25.5 | 4 | 99.8 | 3 | ... | 28.7 | 15 | 98.5 | 15 | ... |
| Rhode Island | 15.4 | 15 | 97.9 | 9 | ... | 29.0 | 13.5 | 96.8 | 24 | ... |
| Tennessee | 14.3 | 17 | 85.6 | 25 | 0.5 | 29.0 | 13.5 | 98.8 | 11.5 | 0.1 |
| Texas | 33.3 | 2 | 98.5 | 8 | ... | ... | ... | ... | ... | ... |
| Vermont | 8.1 | 26 | 79.9 | 28 | 4.8 | 22.8 | 23 | 94.2 | 27 | 2.8 |
| Virginia | 8.7 | 25 | 90.1 | 21 | 2.3 | 20.9 | 24 | 98.0 | 19.5 | 1.8 |
| Washington | 16.2 | 12 | 97.7 | 10 | a/ | 33.0 | 9 | 99.5 | 4 | a/ |
| West Virginia | 14.0 | 18 | 87.3 | 24 | 0.2 | 26.9 | 18 | 98.2 | 17.5 | ... |
| Wisconsin | 11.2 | 21 | 88.7 | 23 | 0.3 | 28.1 | 16 | 98.6 | 14 | 0.2 |
| Wyoming | 7.9 | 27 | 99.4 | 4 | ... | 26.5 | 19 | 99.9 | 2 | ... |

* Less than 1/10 of 1 percent.

a/ Data not available in this classification.

b/ Teachers whose preparation level is not known are not included.

c/ Excluding greater Chicago.

d/ Data are for 1968-69.

TABLE 26.—PERCENT OF NEW ELEMENTARY AND NEW SECONDARY-SCHOOL TEACHERS HAVING MASTER'S DEGREE, BACHELOR'S OR HIGHER DEGREE, AND LESS THAN TWO YEARS' COLLEGE, 1969-70, IN 24 STATES

| State | New elementary-school teachers | | | | | New secondary-school teachers | | | | |
|------------------------|--------------------------------|------|-----------------------------|------|----------------------------|-------------------------------|------|-----------------------------|------|----------------------------|
| | Master's or higher degree | | Bachelor's or higher degree | | Less than 2 years' college | Master's or higher degree | | Bachelor's or higher degree | | Less than 2 years' college |
| | Percent | Rank | Percent | Rank | | Percent | Rank | Percent | Rank | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Alabama | 8.7% | 8 | 91.9% | 21 | 1.3% | 10.3% | 10 | 94.8% | 22 | 1.4% |
| Arkansas | 5.1 | 12 | 96.2 | 16 | 0.2 | 7.8 | 12 | 99.9 | 4 | ... |
| Colorado | 4.2 | 14 | 99.4 | 7 | 0.1 | 6.6 | 15 | 98.4 | 12 | 0.6 |
| Connecticut | 11.0 | 5 | 97.4 | 12 | ... | 21.5 | 3 | 98.7 | 9 | 0.1 |
| Delaware | 7.5 | 11 | 96.8 | 14 | a/ | 12.8 | 9 | 96.1 | 20 | a/ |
| Hawaii | 13.6 | 3 | 99.9 | 4.5 | ... | 20.5 | 4 | 99.4 | 6 | ... |
| Idaho | a/ | ... | 87.9 | 22 | 0.1 | a/ | ... | 98.5 | 11 | ... |
| Illinois ^{b/} | 8.6 | 9.5 | 100.0 | 2 | ... | 8.8 | 11 | 100.0 | 2 | ... |
| Kansas | 13.9 | 2 | 98.7 | 8 | 0.1 | 30.7 | 2 | 99.1 | 7 | ... |
| Louisiana | 3.9 | 15 | 92.0 | 20 | 1.0 | 6.8 | 14 | 96.5 | 16.5 | 0.5 |
| Maryland | 8.6 | 9.5 | 95.9 | 18 | 0.6 | 13.9 | 8 | 96.1 | 20 | 1.4 |
| Mississippi | 3.8 | 16 | 96.9 | 13 | 0.1 | 5.2 | 18 | 96.1 | 20 | ... |
| Missouri ^{c/} | 10.3 | 6 | 94.2 | 19 | 0.7 | 19.2 | 5 | 94.6 | 23 | 3.2 |
| Nevada | 16.1 | 1 | 100.0 | 2 | a/ | 61.7 | 1 | 100.0 | 2 | a/ |
| New Hampshire | 3.3 | 17 | 96.6 | 15 | 0.5 | 7.0 | 13 | 96.8 | 14 | 0.4 |
| New Mexico | 11.3 | 4 | 99.8 | 6 | ... | 16.1 | 7 | 98.8 | 8 | 0.8 |
| Oklahoma | 1.8 | 19 | 99.9 | 4.5 | ... | 2.2 | 21 | 96.2 | 18 | ... |
| Rhode Island | 1.4 | 20 | 98.4 | 9 | ... | 5.3 | 17 | 99.7 | 5 | ... |
| Tennessee | 1.3 | 21 | 84.7 | 24 | 2.1 | 3.6 | 20 | 96.6 | 15 | 0.2 |
| Virginia | 2.1 | 18 | 98.1 | 10 | 1.9 | 4.4 | 19 | 96.5 | 16.5 | 3.5 |
| Washington | 8.9 | 7 | 97.9 | 11 | a/ | 16.2 | 6 | 98.6 | 10 | a/ |
| West Virginia | 0.7 | 23 | 87.2 | 23 | ... | 1.4 | 23 | 97.0 | 13 | ... |
| Wisconsin | 4.3 | 13 | 96.0 | 17 | 0.1 | 2.0 | 22 | 88.7 | 24 | 0.2 |
| Wyoming | 0.9 | 22 | 100.0 | 2 | ... | 5.6 | 16 | 100.0 | 2 | ... |

a/ Data not available in this classification.

b/ Excluding greater Chicago.

c/ Data are for 1968-69.

24 states reporting this information. The percent of new secondary-school teachers having less than two years of college preparation exceeded 1 percent in four of the 24 states reporting this information.

Comparison of information in Tables 25 and 26 for individual states reporting the educational qualifications of new teachers and all teachers provides an indication of the influence of the educational qualifications of new teachers upon the qualifications of the total staff in these states.

The quality of the total staff is likely to have been improved where the percent of new teachers having the bachelor's or higher degree is at least 3.0 percentage points more than the percent of all teachers having this level of

preparation. This improvement at the elementary-school level is observed in six of the 24 states providing information about new and all elementary-school teachers: Idaho, Maryland, Nevada, New Hampshire, Virginia, and Wisconsin.

The quality of the total staff is likely to have not been improved where the percent of new teachers having the bachelor's or higher degree is at least 3.0 percentage points lower than the percent of all teachers having this level of preparation. This lowering of staff quality at the elementary-school level is not observed in the 24 states providing information about new and all elementary-school teachers. Lowering of quality is suggested in one of the 24 states providing information about new and all secondary-school teachers, Wisconsin.

APPENDIX

| | |
|--|----|
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TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING
CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE

| TYPE OF PREPARATION COMPLETED BY STUDENT | ALABAMA | | ALASKA | | ARIZONA | |
|--|---------|-------|--------|------|---------|-------|
| | 1970 | 1969 | 1970 | 1969 | 1970 | 1969 |
| ELEMENTARY-SCHOOL TOTAL | 1,427 | 1,445 | 83 | 68 | 1,786 | 1,586 |
| REGULAR INSTRUCTION | 1,408 | 1,428 | 83 | 68 | 1,783 | 1,585 |
| SELECTED SUBJECTS(TOTAL) | 19 | 17 | ... | ... | 3 | 1 |
| ART | 10 | 2 | ... | ... | ... | ... |
| FOREIGN LANGUAGES | ... | 1 | ... | ... | ... | ... |
| MUSIC | 9 | 14 | ... | ... | 1 | ... |
| PHYSICAL & HEALTH EDUCATION | ... | ... | ... | ... | 2 | 1 |
| SECONDARY SCHOOL | | | | | | |
| AGRICULTURE | 70 | 99 | ... | ... | 20 | 18 |
| ART | 68 | 60 | ... | ... | 97 | 92 |
| BUSINESS EDUCATION | 268 | 234 | ... | ... | 144 | 136 |
| DISTRIBUTIVE EDUCATION | 5 | 1 | ... | ... | 14 | 11 |
| ENGLISH LANGUAGE ARTS(TOTAL) | 505 | 496 | 17 | 12 | 294 | 256 |
| ENGLISH | 462 | 454 | 14 | 12 | 235 | 208 |
| JOURNALISM | ... | ... | ... | ... | 4 | 6 |
| SPEECH AND DRAMATIC ARTS | 43 | 42 | 3 | ... | 55 | 42 |
| FOREIGN LANGUAGES(TOTAL) | 81 | 88 | 2 | 3 | 109 | 99 |
| FRENCH | 29 | 26 | 1 | 3 | 19 | 19 |
| GERMAN | 3 | 2 | 1 | ... | 8 | 7 |
| LATIN | 1 | 2 | ... | ... | ... | ... |
| RUSSIAN | ... | ... | ... | ... | 3 | 3 |
| SPANISH | 14 | 31 | ... | ... | 77 | 67 |
| OTHER | 34 | 27 | ... | ... | 2 | 3 |
| HOME ECONOMICS | 200 | 187 | 3 | 2 | 93 | 97 |
| INDUSTRIAL ARTS | 27 | 42 | ... | ... | 100 | 88 |
| JUNIOR HIGH SCHOOL(GENERAL) | ... | ... | ... | ... | ... | ... |
| MATHEMATICS | 258 | 237 | 8 | 4 | 63 | 68 |
| MUSIC | 154 | 121 | 3 | 2 | 79 | 64 |
| PHYSICAL & HEALTH EDUCATION | 525 | 414 | 6 | 3 | 229 | 197 |
| NATURAL & PHYSICAL SCIENCES (TOTAL) | 182 | 187 | 6 | 5 | 112 | 84 |
| SUBJECT NOT SPECIFIED | 31 | 33 | ... | ... | 2 | 1 |
| GENERAL SCIENCE | 14 | 13 | 1 | 1 | 18 | 14 |
| BIOLOGY | 125 | 126 | 4 | 2 | 63 | 52 |
| CHEMISTRY | 9 | 14 | 1 | 1 | 15 | 12 |
| PHYSICS | 3 | 1 | ... | 1 | 14 | 5 |
| SOCIAL STUDIES(TOTAL) | 811 | 692 | 20 | 11 | 290 | 248 |
| SUBJECT NOT SPECIFIED | 260 | 306 | 2 | 2 | 57 | 62 |
| HISTORY, GEOGRAPHY | 420 | 308 | 14 | 9 | 166 | 136 |
| ECONOMICS, SOCIOLOGY, PSYCHOLOGY | 49 | 52 | 2 | ... | 1 | ... |
| OTHER SOCIAL STUDIES | 82 | 26 | 2 | ... | 66 | 50 |
| TRADE, INDUSTRY, TECHNOLOGY | 7 | ... | ... | ... | 5 | 6 |
| OTHER SECONDARY SUBJECTS | 30 | 42 | ... | ... | 32 | 30 |
| SECONDARY-SCHOOL TOTAL | 3,191 | 2,900 | 65 | 42 | 1,681 | 1,494 |
| UNGRADED | | | | | | |
| SPECIAL EDUCATION | 11 | 9 | 12 | 11 | 140 | 146 |
| LIBRARIAN | 34 | 34 | ... | ... | 11 | 21 |
| GUIDANCE COUNSELOR | 70 | 133 | 14 | 13 | 210 | 207 |
| SCHOOL PSYCHOLOGIST | 15 | 1 | ... | ... | 15 | 14 |
| SCHOOL SOCIAL WORKER | ... | ... | ... | ... | ... | ... |
| SCHOOL NURSE | ... | ... | ... | ... | ... | ... |
| OTHER UNGRADED | 77 | 91 | ... | ... | 5 | 24 |

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

| TYPE OF PREPARATION COMPLETED BY STUDENT | ARKANSAS | | CALIFORNIA | | COLORADO | |
|--|----------|-------|------------|-------|----------|-------|
| | 1970 | 1969 | 1970 | 1969 | 1970 | 1969 |
| ELEMENTARY-SCHOOL TOTAL | 1,110 | 1,030 | 7,309 | 6,682 | 1,467 | 1,286 |
| REGULAR INSTRUCTION | 1,083 | 1,023 | 6,978 | 6,305 | 1,434 | 1,251 |
| SELECTED SUBJECTS(TOTAL) | 27 | 7 | 331 | 373 | 33 | 35 |
| ART | 9 | 7 | 144 | 157 | 6 | 4 |
| FOREIGN LANGUAGES | ... | ... | 114 | 112 | 4 | 12 |
| MUSIC | 12 | ... | 65 | 89 | 17 | 16 |
| PHYSICAL & HEALTH EDUCATION | 6 | ... | 8 | 15 | 6 | 3 |
| SECONDARY SCHOOL | | | | | | |
| AGRICULTURE | 57 | 48 | 204 | 116 | ... | 16 |
| ART | 80 | 64 | 383 | 281 | 216 | 210 |
| BUSINESS EDUCATION | 249 | 259 | 204 | 196 | 156 | 165 |
| DISTRIBUTIVE EDUCATION | 1 | 2 | 2 | 4 | 29 | 36 |
| ENGLISH LANGUAGE ARTS(TOTAL) | 397 | 389 | 1,293 | 1,213 | 462 | 525 |
| ENGLISH | 302 | 331 | 1,110 | 1,088 | 366 | 426 |
| JOURNALISM | 8 | 6 | 34 | 23 | 2 | 3 |
| SPEECH AND DRAMATIC ARTS | 87 | 52 | 149 | 102 | 94 | 96 |
| FOREIGN LANGUAGES(TOTAL) | 46 | 49 | 567 | 513 | 167 | 201 |
| FRENCH | 19 | 20 | 195 | 165 | 52 | 59 |
| GERMAN | 2 | 1 | 94 | 73 | 14 | 20 |
| LATIN | ... | 1 | 10 | 10 | 2 | 4 |
| RUSSIAN | ... | ... | 14 | 7 | 5 | 5 |
| SPANISH | 25 | 27 | 246 | 250 | 94 | 113 |
| OTHER | ... | ... | 8 | 8 | ... | ... |
| HOME ECONOMICS | 148 | 155 | 237 | 243 | 70 | 120 |
| INDUSTRIAL ARTS | 39 | 36 | 205 | 234 | 153 | 116 |
| JUNIOR HIGH SCHOOL(GENERAL) | ... | ... | ... | ... | ... | 41 |
| MATHEMATICS | 149 | 136 | 305 | 323 | 157 | 159 |
| MUSIC | 144 | 129 | 175 | 166 | 158 | 153 |
| PHYSICAL & HEALTH EDUCATION | 428 | 382 | 607 | 566 | 306 | 358 |
| NATURAL & PHYSICAL SCIENCES (TOTAL) | 175 | 179 | 508 | 467 | 172 | 197 |
| SUBJECT NOT SPECIFIED | 7 | 7 | 90 | 57 | 46 | 55 |
| GENERAL SCIENCE | 33 | 31 | 46 | 38 | 9 | 13 |
| BIOLOGY | 109 | 123 | 300 | 284 | 85 | 101 |
| CHEMISTRY | 21 | 14 | 49 | 55 | 23 | 20 |
| PHYSICS | 5 | 4 | 23 | 33 | 9 | 8 |
| SOCIAL STUDIES(TOTAL) | 421 | 436 | 1,697 | 1,547 | 432 | 554 |
| SUBJECT NOT SPECIFIED | 342 | 303 | 329 | 237 | 191 | 281 |
| HISTORY, GEOGRAPHY | 59 | 67 | 937 | 965 | 182 | 219 |
| ECONOMICS, SOCIOLOGY, PSYCHOLOGY | 20 | 6 | 228 | 152 | 52 | 25 |
| OTHER SOCIAL STUDIES | ... | 2 | 203 | 193 | 7 | 29 |
| TRADE, INDUSTRY, TECHNOLOGY | ... | ... | 2 | 5 | 1 | 29 |
| OTHER SECONDARY SUBJECTS | ... | ... | 36 | 40 | 5 | 16 |
| SECONDARY-SCHOOL TOTAL | 2,334 | 2,264 | 6,425 | 5,914 | 2,484 | 2,896 |
| UNGRADED | | | | | | |
| SPECIAL EDUCATION | 186 | 139 | 320 | 397 | 172 | 313 |
| LIBRARIAN | 4 | 4 | 118 | 111 | ... | 7 |
| GUIDANCE COUNSELOR | 109 | 102 | 300 | 327 | ... | 101 |
| SCHOOL PSYCHOLOGIST | ... | ... | 99 | 147 | ... | 3 |
| SCHOOL SOCIAL WORKER | ... | ... | 35 | 41 | ... | ... |
| SCHOOL NURSE | ... | ... | 26 | 19 | ... | ... |
| OTHER UNGRADED | ... | ... | 178 | 135 | ... | 67 |

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

| TYPE OF PREPARATION COMPLETED BY STUDENT | CONNECTICUT | | DELAWARE | | DISTRICT OF COLUMBIA | |
|--|-------------|-------|----------|------|----------------------|------|
| | 1970 | 1969 | 1970 | 1969 | 1970 | 1969 |
| ELEMENTARY-SCHOOL TOTAL | 2,048 | 1,770 | 160 | 153 | 377 | 332 |
| REGULAR INSTRUCTION | 2,045 | 1,770 | 160 | 153 | 372 | 323 |
| SELECTED SUBJECTS(TOTAL) | 3 | ... | ... | ... | 5 | 9 |
| ART | 3 | ... | ... | ... | 1 | 2 |
| FOREIGN LANGUAGES | ... | ... | ... | ... | ... | 2 |
| MUSIC | ... | ... | ... | ... | 1 | 1 |
| PHYSICAL & HEALTH EDUCATION | ... | ... | ... | ... | 3 | 4 |
| SECONDARY SCHOOL | | | | | | |
| AGRICULTURE | 2 | 5 | 4 | 2 | ... | ... |
| ART | 155 | 126 | 17 | 12 | 24 | 19 |
| BUSINESS EDUCATION | 64 | 39 | 22 | 19 | 29 | 30 |
| DISTRIBUTIVE EDUCATION | 18 | 16 | 1 | ... | ... | ... |
| ENGLISH LANGUAGE ARTS(TOTAL) | 397 | 346 | 38 | 28 | 121 | 93 |
| ENGLISH | 396 | 346 | 38 | 26 | 97 | 85 |
| JOURNALISM | ... | ... | ... | ... | ... | ... |
| SPEECH AND DRAMATIC ARTS | 1 | ... | ... | 2 | 24 | 8 |
| FOREIGN LANGUAGES(TOTAL) | 184 | 165 | 25 | 17 | 45 | 38 |
| FRENCH | 89 | 82 | 11 | 8 | 22 | 20 |
| GERMAN | 16 | 8 | 4 | 2 | 2 | 1 |
| LATIN | 7 | 10 | ... | ... | 1 | ... |
| RUSSIAN | 3 | 1 | ... | ... | ... | ... |
| SPANISH | 67 | 62 | 10 | 7 | 18 | 17 |
| UTHER | 2 | 2 | ... | ... | 2 | ... |
| HOME ECONOMICS | 19 | 14 | 33 | 20 | 8 | 2 |
| INDUSTRIAL ARTS | 54 | 55 | ... | ... | ... | ... |
| JUNIOR HIGH SCHOOL(GENERAL) | ... | ... | ... | ... | 10 | ... |
| MATHEMATICS | 173 | 147 | 17 | 16 | 36 | 13 |
| MUSIC | 88 | 85 | 12 | 5 | 21 | 16 |
| PHYSICAL & HEALTH EDUCATION | 217 | 208 | 51 | 32 | 33 | 38 |
| NATURAL & PHYSICAL SCIENCES (TOTAL) | 160 | 143 | 11 | 10 | 29 | 7 |
| SUBJECT NOT SPECIFIED | ... | 1 | ... | ... | 4 | 4 |
| GENERAL SCIENCE | 23 | 26 | 1 | 1 | ... | 1 |
| BIOLOGY | 117 | 94 | 8 | 8 | 11 | 1 |
| CHEMISTRY | 16 | 12 | 2 | 1 | 8 | ... |
| PHYSICS | 4 | 10 | ... | ... | 6 | 1 |
| SOCIAL STUDIES(TOTAL) | 422 | 334 | 45 | 28 | 147 | 98 |
| SUBJECT NOT SPECIFIED | 126 | 97 | 16 | 22 | 43 | 19 |
| HISTORY, GEOGRAPHY | 248 | 183 | 26 | 4 | 78 | 67 |
| ECONOMICS, SOCIOLOGY, PSYCHOLOGY | 13 | 8 | 3 | 1 | 20 | ... |
| OTHER SOCIAL STUDIES | 35 | 46 | ... | 1 | 6 | 12 |
| TRADE, INDUSTRY, TECHNOLOGY | 30 | 30 | ... | ... | 19 | 9 |
| OTHER SECONDARY SUBJECTS | 112 | 89 | ... | ... | 1 | 79 |
| SECONDARY-SCHOOL TOTAL | 2,095 | 1,802 | 276 | 189 | 523 | 442 |
| UNGRADED | | | | | | |
| SPECIAL EDUCATION | 221 | 182 | 4 | 5 | 97 | 83 |
| LIBRARIAN | 65 | 50 | ... | ... | 43 | 39 |
| GUIDANCE COUNSELOR | 81 | 46 | ... | ... | 55 | 24 |
| SCHOOL PSYCHOLOGIST | 11 | 5 | ... | ... | 10 | 4 |
| SCHOOL SOCIAL WORKER | ... | ... | ... | ... | ... | ... |
| SCHOOL NURSE | ... | ... | ... | ... | ... | ... |
| OTHER UNGRADED | 7 | 8 | ... | ... | ... | ... |

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

| TYPE OF PREPARATION COMPLETED BY STUDENT | FLORIDA | | GEORGIA | | HAWAII | |
|--|---------|-------|---------|-------|--------|------|
| | 1970 | 1969 | 1970 | 1969 | 1970 | 1969 |
| ELEMENTARY-SCHOOL TOTAL | 2,625 | 2,481 | 1,828 | 1,891 | 615 | 495 |
| REGULAR INSTRUCTION | 2,574 | 2,432 | 1,828 | 1,891 | 615 | 495 |
| SELECTED SUBJECTS(TOTAL) | 51 | 49 | ... | ... | ... | ... |
| ART | 23 | 19 | ... | ... | ... | ... |
| FOREIGN LANGUAGES | ... | ... | ... | ... | ... | ... |
| MUSIC | 16 | 20 | ... | ... | ... | ... |
| PHYSICAL & HEALTH EDUCATION | 12 | 4 | ... | ... | ... | ... |
| SECONDARY SCHOOL | | | | | | |
| AGRICULTURE | 23 | 17 | 25 | 25 | 1 | ... |
| ART | 186 | 116 | 95 | 96 | 16 | 12 |
| BUSINESS EDUCATION | 193 | 190 | 230 | 165 | 19 | 23 |
| DISTRIBUTIVE EDUCATION | 27 | 23 | 14 | 11 | ... | ... |
| ENGLISH LANGUAGE ARTS(TOTAL) | 768 | 639 | 466 | 456 | 113 | 66 |
| ENGLISH | 660 | 558 | 446 | 433 | 88 | 45 |
| JOURNALISM | 25 | 14 | ... | 2 | ... | ... |
| SPEECH AND DRAMATIC ARTS | 83 | 67 | 20 | 21 | 25 | 21 |
| FOREIGN LANGUAGES(TOTAL) | 184 | 170 | 140 | 108 | 29 | 16 |
| FRENCH | 59 | 51 | 72 | 61 | 9 | 5 |
| GERMAN | 11 | 13 | 6 | 4 | 1 | 1 |
| LATIN | 1 | 7 | 23 | 2 | ... | 2 |
| RUSSIAN | 2 | ... | ... | ... | 1 | 1 |
| SPANISH | 111 | 99 | 39 | 41 | 10 | 1 |
| OTHER | ... | ... | ... | ... | 8 | 6 |
| HOME ECONOMICS | 90 | 86 | 162 | 146 | 8 | 5 |
| INDUSTRIAL ARTS | 66 | 52 | 63 | 60 | 13 | 10 |
| JUNIOR HIGH SCHOOL(GENERAL) | ... | 6 | 58 | 80 | ... | ... |
| MATHEMATICS | 251 | 255 | 245 | 262 | 30 | 26 |
| MUSIC | 214 | 195 | 122 | 119 | 18 | 9 |
| PHYSICAL & HEALTH EDUCATION | 484 | 490 | 283 | 257 | 51 | 39 |
| NATURAL & PHYSICAL SCIENCES (TOTAL) | 227 | 164 | 198 | 219 | 19 | 18 |
| SUBJECT NOT SPECIFIED | 22 | 15 | 44 | 45 | 3 | ... |
| GENERAL SCIENCE | 39 | 35 | 38 | 47 | 4 | 2 |
| BIOLOGY | 111 | 75 | 88 | 95 | 8 | 11 |
| CHEMISTRY | 46 | 34 | 23 | 25 | 3 | 5 |
| PHYSICS | 9 | 5 | 5 | 7 | 1 | ... |
| SOCIAL STUDIES(TOTAL) | 1,072 | 861 | 774 | 620 | 108 | 77 |
| SUBJECT NOT SPECIFIED | 575 | 522 | 359 | 300 | 37 | 57 |
| HISTORY, GEOGRAPHY, ECONOMICS, SOCIOLOGY, PSYCHOLOGY | 175 | 121 | 285 | 211 | 59 | 18 |
| OTHER SOCIAL STUDIES | 232 | 101 | 56 | 57 | 10 | 1 |
| TRADE, INDUSTRY, TECHNOLOGY | 90 | 111 | 74 | 52 | 2 | 1 |
| OTHER SECONDARY SUBJECTS | 60 | 51 | 20 | 8 | ... | ... |
| SECONDARY-SCHOOL TOTAL | 3,845 | 3,316 | 2,895 | 2,632 | 425 | 301 |
| UNGRADED | | | | | | |
| SPECIAL EDUCATION | 312 | 232 | 150 | 137 | ... | ... |
| LIBRARIAN | 103 | 104 | 29 | 27 | ... | ... |
| GUIDANCE COUNSELOR | 152 | 126 | 134 | 174 | ... | ... |
| SCHOOL PSYCHOLOGIST | ... | ... | ... | ... | 60 | 71 |
| SCHOOL SOCIAL WORKER | ... | ... | ... | ... | ... | ... |
| SCHOOL NURSE | ... | ... | ... | ... | ... | ... |
| OTHER UNGRADED | 73 | 78 | 829 | 885 | ... | ... |

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

| TYPE OF PREPARATION COMPLETED BY STUDENT | IDAHO | | ILLINOIS | | INDIANA | |
|--|-------|------|----------|-------|---------|-------|
| | 1970 | 1969 | 1970 | 1969 | 1970 | 1969 |
| ELEMENTARY-SCHOOL TOTAL | 489 | 497 | 5,514 | 4,866 | 2,846 | 2,555 |
| REGULAR INSTRUCTION | 489 | 497 | 5,210 | 4,554 | 2,823 | 2,549 |
| SELECTED SUBJECTS(TOTAL) | ... | ... | 304 | 312 | 23 | 6 |
| ART | ... | ... | 46 | 73 | 19 | ... |
| FOREIGN LANGUAGES | ... | ... | 18 | 30 | ... | ... |
| MUSIC | ... | ... | 60 | 63 | 2 | 3 |
| PHYSICAL & HEALTH EDUCATION | ... | ... | 180 | 146 | 2 | 3 |
| SECONDARY SCHOOL | | | | | | |
| AGRICULTURE | 16 | 13 | 140 | 100 | 147 | ... |
| ART | 14 | 20 | 419 | 386 | 180 | 188 |
| BUSINESS EDUCATION | 12 | 39 | 581 | 455 | 285 | 237 |
| DISTRIBUTIVE EDUCATION | 24 | 11 | ... | ... | 11 | 3 |
| ENGLISH LANGUAGE ARTS(TOTAL) | 65 | 81 | 1,737 | 1,428 | 966 | 954 |
| ENGLISH | 60 | 74 | 1,296 | 1,149 | 749 | 770 |
| JOURNALISM | ... | ... | 16 | 14 | 38 | 37 |
| SPEECH AND DRAMATIC ARTS | 5 | 7 | 425 | 265 | 179 | 147 |
| FOREIGN LANGUAGES(TOTAL) | 2 | 15 | 655 | 569 | 321 | 334 |
| FRENCH | 1 | 12 | 226 | 223 | 129 | 125 |
| GERMAN | ... | 1 | 116 | 71 | 42 | 43 |
| LATIN | ... | ... | 34 | 36 | 29 | 25 |
| RUSSIAN | ... | ... | 19 | 8 | 5 | 12 |
| SPANISH | 1 | 2 | 246 | 223 | 116 | 129 |
| OTHER | ... | ... | 14 | 8 | ... | ... |
| HOME ECONOMICS | 11 | 64 | 305 | 291 | 266 | 224 |
| INDUSTRIAL ARTS | 14 | 13 | 312 | 237 | 207 | 199 |
| JUNIOR HIGH SCHOOL(GENERAL) | ... | ... | 119 | 102 | ... | ... |
| MATHEMATICS | 21 | 33 | 731 | 590 | 333 | 326 |
| MUSIC | 25 | 35 | 490 | 379 | 279 | 259 |
| PHYSICAL & HEALTH EDUCATION | 87 | 140 | 1,202 | 930 | 826 | 771 |
| NATURAL & PHYSICAL SCIENCES (TOTAL) | 62 | 44 | 525 | 461 | 379 | 348 |
| SUBJECT NOT SPECIFIED | 8 | 3 | 69 | 61 | 47 | 41 |
| GENERAL SCIENCE | 14 | 5 | 14 | 8 | 36 | 27 |
| BIOLOGY | 34 | 33 | 308 | 278 | 220 | 213 |
| CHEMISTRY | 3 | 2 | 81 | 76 | 58 | 49 |
| PHYSICS | 3 | 1 | 53 | 38 | 18 | 18 |
| SOCIAL STUDIES(TOTAL) | 130 | 131 | 1,700 | 1,440 | 1,236 | 1,263 |
| SUBJECT NOT SPECIFIED | 25 | 67 | 338 | 323 | 582 | 600 |
| HISTORY, GEOGRAPHY | 64 | 43 | 917 | 754 | 334 | 348 |
| ECONOMICS, SOCIOLOGY, PSYCHOLOGY | 21 | 12 | 261 | 237 | 203 | 204 |
| OTHER SOCIAL STUDIES | 20 | 9 | 184 | 126 | 117 | 111 |
| TRADE, INDUSTRY, TECHNOLOGY | 1 | ... | ... | 7 | 6 | 5 |
| OTHER SECONDARY SUBJECTS | 182 | 9 | 41 | 38 | 45 | 42 |
| SECONDARY-SCHOOL TOTAL | 666 | 648 | 8,957 | 7,413 | 5,487 | 5,154 |
| UNGRADED | | | | | | |
| SPECIAL EDUCATION | 14 | 11 | 638 | 534 | 198 | 181 |
| LIBRARIAN | ... | ... | 34 | 24 | 102 | 67 |
| GUIDANCE COUNSELOR | 11 | 5 | 195 | 289 | 34 | 37 |
| SCHOOL PSYCHOLOGIST | ... | ... | ... | ... | ... | ... |
| SCHOOL SOCIAL WORKER | ... | ... | ... | ... | ... | ... |
| SCHOOL NURSE | ... | ... | 4 | 3 | ... | ... |
| OTHER UNGRADED | 7 | 8 | 86 | 47 | 35 | 37 |

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

| TYPE OF PREPARATION COMPLETED BY STUDENT | IOWA | | KANSAS | | KENTUCKY | |
|---|-------|-------|--------|-------|----------|-------|
| | 1970 | 1969 | 1970 | 1969 | 1970 | 1969 |
| ELEMENTARY-SCHOOL TOTAL | 2,139 | 2,212 | 1,911 | 1,966 | 2,123 | 2,124 |
| REGULAR INSTRUCTION | 2,046 | 2,161 | 1,808 | 1,893 | 2,019 | 2,092 |
| SELECTED SUBJECTS(TOTAL) | 93 | 51 | 103 | 73 | 104 | 32 |
| ART | 15 | 6 | 21 | 17 | ... | 1 |
| FOREIGN LANGUAGES | 2 | 1 | ... | ... | ... | ... |
| MUSIC | 28 | 2 | 52 | 34 | 11 | 10 |
| PHYSICAL & HEALTH EDUCATION | 48 | 42 | 30 | 22 | 93 | 21 |
| SECONDARY SCHOOL | | | | | | |
| AGRICULTURE | 74 | 47 | 36 | 26 | 43 | 45 |
| ART | 210 | 138 | 130 | 120 | 160 | 148 |
| BUSINESS EDUCATION | 142 | 143 | 161 | 171 | 332 | 300 |
| DISTRIBUTIVE EDUCATION | 15 | 10 | ... | 7 | 6 | ... |
| ENGLISH LANGUAGE ARTS(TOTAL) | 638 | 666 | 523 | 500 | 684 | 699 |
| ENGLISH | 515 | 544 | 414 | 434 | 601 | 622 |
| JOURNALISM | 15 | 10 | 6 | 1 | 16 | 14 |
| SPEECH AND DRAMATIC ARTS | 108 | 112 | 103 | 65 | 67 | 63 |
| FOREIGN LANGUAGES(TOTAL) | 244 | 234 | 137 | 167 | 119 | 113 |
| FRENCH | 77 | 105 | 44 | 92 | 44 | 51 |
| GERMAN | 50 | 36 | 23 | 21 | 20 | 14 |
| LATIN | 5 | 4 | 8 | 2 | 5 | 9 |
| RUSSIAN | 6 | 1 | ... | ... | 1 | 1 |
| SPANISH | 106 | 88 | 60 | 49 | 48 | 34 |
| OTHER | ... | ... | 2 | 3 | 1 | 4 |
| HOME ECONOMICS | 189 | 247 | 194 | 145 | 194 | 181 |
| INDUSTRIAL ARTS | 82 | 82 | 121 | 139 | 191 | 160 |
| JUNIOR HIGH SCHOOL(GENERAL) | 46 | 67 | 10 | ... | 24 | 34 |
| MATHEMATICS | 229 | 227 | 166 | 199 | 189 | 189 |
| MUSIC | 212 | 214 | 161 | 172 | 183 | 183 |
| PHYSICAL & HEALTH EDUCATION | 532 | 476 | 509 | 424 | 527 | 573 |
| NATURAL & PHYSICAL SCIENCES (TOTAL) | 264 | 253 | 175 | 180 | 237 | 228 |
| SUBJECT NOT SPECIFIED | 55 | 19 | 10 | 39 | 20 | 16 |
| GENERAL SCIENCE | 43 | 37 | 32 | 32 | ... | ... |
| BIOLOGY | 134 | 153 | 116 | 87 | 163 | 169 |
| CHEMISTRY | 17 | 32 | 15 | 17 | 46 | 40 |
| PHYSICS | 15 | 12 | 2 | 5 | 8 | 3 |
| SOCIAL STUDIES(TOTAL) | 717 | 763 | 465 | 489 | 1,082 | 911 |
| SUBJECT NOT SPECIFIED | 245 | 265 | 171 | 199 | 134 | 102 |
| HISTORY, GEOGRAPHY | 325 | 324 | 220 | 231 | 596 | 514 |
| ECONOMICS, SOCIOLOGY, PSYCHOLOGY | 93 | 109 | 64 | 44 | 273 | 234 |
| OTHER SOCIAL STUDIES | 54 | 65 | 10 | 15 | 79 | 61 |
| TRADE, INDUSTRY, TECHNOLOGY | ... | ... | 3 | 29 | 11 | 13 |
| OTHER SECONDARY SUBJECTS | ... | ... | 28 | 14 | 13 | ... |
| SECONDARY-SCHOOL TOTAL | 3,594 | 3,567 | 2,819 | 2,782 | 3,995 | 3,777 |
| UNGRADED | | | | | | |
| SPECIAL EDUCATION | 119 | 70 | 118 | 61 | 153 | 121 |
| LIBRARIAN | 76 | ... | 33 | 39 | 51 | 43 |
| GUIDANCE COUNSELOR | 49 | ... | 33 | 34 | 36 | 26 |
| SCHOOL PSYCHOLOGIST | 11 | ... | ... | 10 | ... | ... |
| SCHOOL SOCIAL WORKER | ... | ... | 4 | 6 | 1 | ... |
| SCHOOL NURSE | ... | ... | ... | ... | ... | ... |
| OTHER UNGRADED | ... | ... | ... | 24 | ... | ... |

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

| TYPE OF PREPARATION COMPLETED BY STUDENT | LOUISIANA | | MAINE | | MARYLAND | |
|--|-----------|-------|-------|------|----------|-------|
| | 1970 | 1969 | 1970 | 1969 | 1970 | 1969 |
| ELEMENTARY-SCHOOL TOTAL | 2,008 | 1,758 | 523 | 510 | 1,795 | 1,612 |
| REGULAR INSTRUCTION | 2,008 | 1,751 | 522 | 510 | 1,702 | 1,554 |
| SELECTED SUBJECTS(TOTAL) | ... | 7 | 1 | ... | 93 | 58 |
| ART | ... | 7 | ... | ... | 45 | 31 |
| FOREIGN LANGUAGES | ... | ... | 1 | ... | ... | ... |
| MUSIC | ... | ... | ... | ... | 23 | 17 |
| PHYSICAL & HEALTH EDUCATION | ... | ... | ... | ... | 25 | 10 |
| SECONDARY SCHOOL | | | | | | |
| AGRICULTURE | 44 | 33 | ... | ... | 5 | 8 |
| ART | 87 | 44 | 29 | 25 | 132 | 147 |
| BUSINESS EDUCATION | 380 | 252 | 64 | 69 | 46 | 48 |
| DISTRIBUTIVE EDUCATION | 20 | 15 | ... | ... | ... | ... |
| ENGLISH LANGUAGE ARTS(TOTAL) | 484 | 394 | 101 | 2 | 405 | 353 |
| ENGLISH | 355 | 290 | 101 | ... | 376 | 324 |
| JOURNALISM | ... | ... | ... | 1 | ... | ... |
| SPEECH AND DRAMATIC ARTS | 129 | 104 | ... | 1 | 29 | 29 |
| FOREIGN LANGUAGES(TOTAL) | 172 | 141 | 24 | ... | 140 | 113 |
| FRENCH | 93 | 69 | 20 | ... | 77 | 64 |
| GERMAN | 2 | 4 | 2 | ... | 10 | 12 |
| LATIN | ... | ... | ... | ... | 1 | 4 |
| RUSSIAN | ... | 1 | ... | ... | ... | ... |
| SPANISH | 42 | 33 | 2 | ... | 52 | 33 |
| OTHER | 35 | 34 | ... | ... | ... | ... |
| HOME ECONOMICS | 155 | 175 | 90 | 23 | 79 | 75 |
| INDUSTRIAL ARTS | 66 | 52 | 30 | 34 | 47 | 40 |
| JUNIOR HIGH SCHOOL(GENERAL) | 1 | 2 | 106 | 79 | ... | 2 |
| MATHEMATICS | 220 | 208 | 48 | 65 | 155 | 180 |
| MUSIC | 159 | 138 | 27 | 32 | 91 | 68 |
| PHYSICAL & HEALTH EDUCATION | 423 | 389 | 31 | 111 | 203 | 142 |
| NATURAL & PHYSICAL SCIENCES (TOTAL) | 150 | 126 | 52 | 55 | 130 | 123 |
| SUBJECT NOT SPECIFIED | 19 | 17 | 2 | 3 | 7 | 6 |
| GENERAL SCIENCE | 21 | 19 | 21 | 26 | 15 | 15 |
| BIOLOGY | 86 | 72 | 23 | 23 | 81 | 78 |
| CHEMISTRY | 21 | 17 | 3 | 3 | 16 | 16 |
| PHYSICS | 3 | 3 | 3 | ... | 11 | 8 |
| SOCIAL STUDIES(TOTAL) | 527 | 396 | 157 | ... | 512 | 435 |
| SUBJECT NOT SPECIFIED | 484 | 362 | 114 | ... | 204 | 148 |
| HISTORY, GEOGRAPHY | 40 | 33 | 40 | ... | 286 | 271 |
| ECONOMICS, SOCIOLOGY, PSYCHOLOGY | 3 | ... | 3 | ... | 22 | 16 |
| OTHER SOCIAL STUDIES | ... | 1 | ... | ... | ... | ... |
| TRADE, INDUSTRY, TECHNOLOGY | 9 | 16 | ... | 3 | ... | ... |
| OTHER SECONDARY SUBJECTS | 5 | 13 | 1 | 2 | ... | ... |
| SECONDARY-SCHOOL TOTAL | 2,902 | 2,394 | 760 | 504 | 1,945 | 1,734 |
| UNGRADED | | | | | | |
| SPECIAL EDUCATION | 90 | 72 | 28 | 22 | 38 | 49 |
| LIBRARIAN | 42 | 39 | ... | ... | 13 | 13 |
| GUIDANCE COUNSELOR | 188 | 142 | ... | ... | 14 | 38 |
| SCHOOL PSYCHOLOGIST | ... | ... | ... | ... | 1 | 6 |
| SCHOOL SOCIAL WORKER | ... | ... | ... | ... | ... | ... |
| SCHOOL NURSE | ... | ... | ... | ... | ... | ... |
| OTHER UNGRADED | 242 | 255 | ... | ... | ... | ... |

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

| TYPE OF PREPARATION COMPLETED BY STUDENT | MASSACHUSETTS | | MICHIGAN | | MINNESOTA | |
|--|---------------|-------|----------|-------|-----------|-------|
| | 1970 | 1969 | 1970 | 1969 | 1970 | 1969 |
| ELEMENTARY-SCHOOL TOTAL | 4,080 | 3,833 | 5,818 | 4,226 | 2,867 | 3,412 |
| REGULAR INSTRUCTION | 3,795 | 3,702 | 5,583 | 4,026 | 2,853 | 3,375 |
| SELECTED SUBJECTS(TOTAL) | 285 | 131 | 235 | 200 | 14 | 37 |
| ART | 81 | 24 | 101 | 97 | 2 | 8 |
| FOREIGN LANGUAGES | 28 | ... | 35 | 29 | ... | ... |
| MUSIC | 6 | 7 | 67 | 43 | 7 | 18 |
| PHYSICAL & HEALTH EDUCATION | 170 | 100 | 32 | 31 | 5 | 11 |
| SECONDARY SCHOOL | | | | | | |
| AGRICULTURE | ... | ... | 33 | 30 | 41 | 31 |
| ART | 75 | 50 | 374 | 258 | 215 | 194 |
| BUSINESS EDUCATION | 211 | 201 | 648 | 493 | 200 | 183 |
| DISTRIBUTIVE EDUCATION | ... | ... | 54 | 43 | 10 | 11 |
| ENGLISH LANGUAGE ARTS(TOTAL) | 1,125 | 982 | 2,010 | 1,452 | 757 | 743 |
| ENGLISH | 1,090 | 926 | 1,591 | 1,191 | 584 | 590 |
| JOURNALISM | ... | ... | 33 | 25 | 1 | 1 |
| SPEECH AND DRAMATIC ARTS | 35 | 56 | 386 | 236 | 172 | 152 |
| FOREIGN LANGUAGES(TOTAL) | 396 | 369 | 494 | 332 | 263 | 285 |
| FRENCH | 222 | 222 | 194 | 124 | 97 | 113 |
| GERMAN | 22 | 17 | 71 | 54 | 69 | 82 |
| LATIN | 70 | 71 | 44 | 32 | 7 | 7 |
| RUSSIAN | 10 | 3 | 20 | 7 | 6 | 7 |
| SPANISH | 66 | 48 | 165 | 113 | 83 | 76 |
| OTHER | 6 | 8 | ... | 2 | 1 | ... |
| HOME ECONOMICS | 129 | 104 | 368 | 235 | 166 | 156 |
| INDUSTRIAL ARTS | ... | ... | 241 | 216 | 188 | 190 |
| JUNIOR HIGH SCHOOL(GENERAL) | 8 | 7 | ... | 1 | 2 | 3 |
| MATHEMATICS | 376 | 329 | 648 | 492 | 319 | 311 |
| MUSIC | 71 | 93 | 348 | 278 | 276 | 223 |
| PHYSICAL & HEALTH EDUCATION | 494 | 410 | 788 | 641 | 489 | 439 |
| NATURAL & PHYSICAL SCIENCES (TOTAL) | 496 | 350 | 703 | 527 | 304 | 270 |
| SUBJECT NOT SPECIFIED | 138 | 105 | 6 | 13 | ... | 2 |
| GENERAL SCIENCE | 80 | 43 | 96 | 81 | 68 | 67 |
| BIOLOGY | 198 | 133 | 456 | 342 | 154 | 140 |
| CHEMISTRY | 31 | 32 | 93 | 51 | 54 | 38 |
| PHYSICS | 49 | 37 | 52 | 40 | 28 | 23 |
| SOCIAL STUDIES(TOTAL) | 1,167 | 1,025 | 2,068 | 1,680 | 834 | 716 |
| SUBJECT NOT SPECIFIED | 415 | 384 | 519 | 408 | 202 | 189 |
| HISTORY, GEOGRAPHY | 679 | 584 | 1,060 | 872 | 431 | 350 |
| ECONOMICS, SOCIOLOGY, PSYCHOLOGY | 66 | 41 | 362 | 259 | 55 | 53 |
| OTHER SOCIAL STUDIES | 7 | 16 | 127 | 141 | 146 | 124 |
| TRADE, INDUSTRY, TECHNOLOGY | 1 | ... | 93 | 87 | ... | ... |
| OTHER SECONDARY SUBJECTS | 16 | 7 | 128 | 82 | 1 | 1 |
| SECONDARY-SCHOOL TOTAL | 4,565 | 3,921 | 8,998 | 6,847 | 4,065 | 3,756 |
| UNGRADED | | | | | | |
| SPECIAL EDUCATION | 225 | 237 | 672 | 504 | 212 | 179 |
| LIBRARIAN | 1 | 17 | 75 | 63 | 55 | 45 |
| GUIDANCE COUNSELOR | 91 | 203 | ... | 2 | 129 | 111 |
| SCHOOL PSYCHOLOGIST | ... | ... | ... | ... | ... | ... |
| SCHOOL SOCIAL WORKER | ... | ... | ... | ... | ... | ... |
| SCHOOL NURSE | ... | ... | ... | ... | ... | ... |
| OTHER UNGRADED | 11 | ... | ... | ... | 101 | 83 |

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

| TYPE OF PREPARATION COMPLETED BY STUDENT | MISSISSIPPI | | MISSOURI | | MONTANA | |
|--|-------------|-------|----------|-------|---------|------|
| | 1970 | 1969 | 1970 | 1969 | 1970 | 1969 |
| ELEMENTARY-SCHOOL TOTAL | 1,740 | 1,406 | 2,599 | 2,467 | 655 | 634 |
| REGULAR INSTRUCTION | 1,732 | 1,390 | 2,578 | 2,454 | 653 | 633 |
| SELECTED SUBJECTS(TOTAL) | 8 | 16 | 21 | 13 | 2 | 1 |
| ART | 6 | 12 | 3 | 1 | ... | ... |
| FOREIGN LANGUAGES | ... | ... | ... | 3 | ... | ... |
| MUSIC | 2 | 4 | 4 | 2 | 2 | 1 |
| PHYSICAL & HEALTH EDUCATION | ... | ... | 14 | 7 | ... | ... |
| SECONDARY SCHOOL | | | | | | |
| AGRICULTURE | 71 | 53 | 51 | 49 | 6 | 13 |
| ART | 70 | 54 | 210 | 181 | 50 | 46 |
| BUSINESS EDUCATION | 407 | 334 | 312 | 271 | 85 | 73 |
| DISTRIBUTIVE EDUCATION | 2 | 2 | 6 | 4 | 6 | 6 |
| ENGLISH LANGUAGE ARTS(TOTAL) | 446 | 472 | 899 | 771 | 181 | 160 |
| ENGLISH | 345 | 358 | 746 | 652 | 179 | 157 |
| JOURNALISM | 14 | 13 | 6 | 7 | ... | ... |
| SPEECH AND DRAMATIC ARTS | 87 | 101 | 147 | 112 | 2 | 3 |
| FOREIGN LANGUAGES(TOTAL) | 57 | 49 | 193 | 198 | 50 | 53 |
| FRENCH | 32 | 21 | 77 | 73 | 20 | 18 |
| GERMAN | ... | 4 | 15 | 11 | 9 | 9 |
| LATIN | 3 | ... | 6 | 10 | 2 | 2 |
| RUSSIAN | ... | ... | ... | ... | 1 | 2 |
| SPANISH | 22 | 24 | 80 | 96 | 18 | 22 |
| OTHER | ... | ... | 15 | 8 | ... | ... |
| HOME ECONOMICS | 184 | 193 | 265 | 224 | 59 | 57 |
| INDUSTRIAL ARTS | 164 | 104 | 175 | 157 | 13 | 25 |
| JUNIOR HIGH SCHOOL(GENERAL) | ... | 2 | ... | ... | ... | ... |
| MATHEMATICS | 189 | 151 | 271 | 281 | 53 | 58 |
| MUSIC | 184 | 144 | 228 | 196 | 41 | 29 |
| PHYSICAL & HEALTH EDUCATION | 497 | 443 | 681 | 411 | 148 | 125 |
| NATURAL & PHYSICAL SCIENCES (TOTAL) | 177 | 138 | 280 | 251 | 93 | 97 |
| SUBJECT NOT SPECIFIED | 8 | 4 | 6 | 6 | 10 | 11 |
| GENERAL SCIENCE | 23 | 33 | 24 | 25 | 27 | 25 |
| BIOLOGY | 121 | 93 | 208 | 184 | 45 | 48 |
| CHEMISTRY | 25 | 7 | 28 | 26 | 9 | 11 |
| PHYSICS | ... | 1 | 14 | 10 | 2 | 2 |
| SOCIAL STUDIES(TOTAL) | 796 | 550 | 876 | 771 | 225 | 219 |
| SUBJECT NOT SPECIFIED | 645 | 364 | 454 | 493 | 104 | 104 |
| HISTORY, GEOGRAPHY | 56 | 143 | 298 | 207 | 120 | 103 |
| ECONOMICS, SOCIOLOGY, PSYCHOLOGY | 76 | 39 | 74 | 51 | 1 | 3 |
| OTHER SOCIAL STUDIES | 19 | 4 | 50 | 20 | ... | 9 |
| TRADE, INDUSTRY, TECHNOLOGY | 50 | 23 | 1 | 1 | ... | ... |
| OTHER SECONDARY SUBJECTS | ... | 1 | 28 | 26 | 2 | 1 |
| SECONDARY-SCHOOL TOTAL | 3,294 | 2,713 | 4,476 | 3,792 | 1,012 | 962 |
| UNGRADED | | | | | | |
| SPECIAL EDUCATION | 99 | 91 | 201 | 149 | 47 | 38 |
| LIBRARIAN | 48 | 44 | 85 | 68 | 4 | 3 |
| GUIDANCE COUNSELOR | 58 | 52 | 135 | 125 | 33 | 45 |
| SCHOOL PSYCHOLOGIST | 38 | 25 | ... | ... | ... | ... |
| SCHOOL SOCIAL WORKER | ... | ... | ... | ... | ... | ... |
| SCHOOL NURSE | ... | ... | ... | 1 | ... | ... |
| OTHER UNGRADED | ... | 1 | 28 | 48 | ... | 4 |

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

| TYPE OF PREPARATION COMPLETED BY STUDENT | NEBRASKA | | NEVADA | | NEW HAMPSHIRE | |
|--|----------|-------|--------|------|---------------|------|
| | 1970 | 1969 | 1970 | 1969 | 1970 | 1969 |
| ELEMENTARY-SCHOOL TOTAL | 1,762 | 1,718 | 173 | 170 | 471 | 453 |
| REGULAR INSTRUCTION | 1,710 | 1,680 | 173 | 170 | 460 | 448 |
| SELECTED SUBJECTS(TOTAL) | 52 | 38 | ... | ... | 11 | 5 |
| ART | 26 | 20 | ... | ... | 7 | 3 |
| FOREIGN LANGUAGES | 2 | 7 | ... | ... | 1 | 1 |
| MUSIC | 4 | 4 | ... | ... | 3 | 1 |
| PHYSICAL & HEALTH EDUCATION | 20 | 7 | ... | ... | ... | ... |
| SECONDARY SCHOOL | | | | | | |
| AGRICULTURE | 43 | 40 | 2 | ... | 3 | 4 |
| ART | 96 | 74 | 12 | 9 | 20 | 23 |
| BUSINESS EDUCATION | 222 | 184 | 14 | 11 | 29 | 35 |
| DISTRIBUTIVE EDUCATION | ... | 9 | ... | ... | ... | ... |
| ENGLISH LANGUAGE ARTS(TOTAL) | 473 | 395 | 44 | 40 | 110 | 97 |
| ENGLISH | 372 | 316 | 33 | 35 | 110 | 97 |
| JOURNALISM | 16 | 11 | ... | 1 | ... | ... |
| SPEECH AND DRAMATIC ARTS | 85 | 68 | 11 | 4 | ... | ... |
| FOREIGN LANGUAGES(TOTAL) | 99 | 98 | 11 | 12 | 38 | 54 |
| FRENCH | 37 | 66 | 3 | 5 | 26 | 47 |
| GERMAN | 15 | 11 | 1 | 2 | 4 | 2 |
| LATIN | 2 | 3 | ... | ... | 2 | ... |
| RUSSIAN | ... | ... | ... | ... | ... | ... |
| SPANISH | 43 | 18 | 7 | 5 | 6 | 5 |
| OTHER | 2 | ... | ... | ... | ... | ... |
| HOME ECONOMICS | 185 | 195 | 6 | 7 | 41 | 37 |
| INDUSTRIAL ARTS | 126 | 109 | 2 | ... | 30 | 31 |
| JUNIOR HIGH SCHOOL(GENERAL) | 1 | 60 | ... | ... | ... | ... |
| MATHEMATICS | 150 | 170 | 9 | 7 | 64 | 57 |
| MUSIC | 147 | 113 | 6 | 7 | 22 | 25 |
| PHYSICAL & HEALTH EDUCATION | 417 | 302 | 40 | 39 | 115 | 49 |
| NATURAL & PHYSICAL SCIENCES (TOTAL) | 165 | 135 | 20 | 23 | 54 | 69 |
| SUBJECT NOT SPECIFIED | 6 | 12 | ... | ... | 3 | 14 |
| GENERAL SCIENCE | 30 | 21 | 1 | 2 | 18 | 7 |
| BIOLOGY | 95 | 75 | 13 | 12 | 33 | 40 |
| CHEMISTRY | 25 | 17 | 4 | 2 | ... | 8 |
| PHYSICS | 9 | 10 | 2 | 7 | ... | ... |
| SOCIAL STUDIES(TOTAL) | 436 | 383 | 54 | 55 | 193 | 165 |
| SUBJECT NOT SPECIFIED | 183 | 175 | ... | 3 | 102 | 89 |
| HISTORY, GEOGRAPHY | 208 | 161 | 39 | 39 | 69 | 57 |
| ECONOMICS, SOCIOLOGY, PSYCHOLOGY | 31 | 40 | 7 | 8 | 22 | 19 |
| OTHER SOCIAL STUDIES | 14 | 7 | 8 | 5 | ... | ... |
| TRADE, INDUSTRY, TECHNOLOGY | ... | ... | ... | 1 | ... | ... |
| OTHER SECONDARY SUBJECTS | 27 | 26 | 9 | 2 | ... | ... |
| SECONDARY-SCHOOL TOTAL | 2,587 | 2,293 | 229 | 213 | 719 | 646 |
| UNGRADED | | | | | | |
| SPECIAL EDUCATION | 31 | 31 | 22 | 17 | 1 | 2 |
| LIBRARIAN | 12 | 13 | 1 | ... | 8 | 5 |
| GUIDANCE COUNSELOR | 56 | 52 | 21 | 15 | ... | 19 |
| SCHOOL PSYCHOLOGIST | ... | ... | 1 | 1 | ... | ... |
| SCHOOL SOCIAL WORKER | ... | ... | ... | ... | ... | ... |
| SCHOOL NURSE | ... | ... | ... | ... | ... | ... |
| OTHER UNGRADED | 35 | 57 | ... | ... | ... | 19 |

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

| TYPE OF PREPARATION COMPLETED BY STUDENT | NEW JERSEY | | NEW MEXICO | | NEW YORK | |
|---|------------|-------|------------|------|----------|--------|
| | 1970 | 1969 | 1970 | 1969 | 1970 | 1969 |
| ELEMENTARY-SCHOOL TOTAL | 3,063 | 2,974 | 349 | 305 | 11,400 | 10,522 |
| REGULAR INSTRUCTION | 2,994 | 2,924 | 347 | 302 | 11,069 | 10,210 |
| SELECTED SUBJECTS(TOTAL) | 69 | 50 | 2 | 3 | 331 | 312 |
| ART | 30 | 22 | ... | ... | 48 | 49 |
| FOREIGN LANGUAGES | ... | ... | ... | ... | 39 | 32 |
| MUSIC | 39 | 28 | 2 | 3 | 112 | 123 |
| PHYSICAL & HEALTH EDUCATION | .. | ... | ... | ... | 132 | 107 |
| SECONDARY SCHOOL | | | | | | |
| AGRICULTURE | 6 | 5 | 13 | 15 | 15 | 15 |
| ART | 282 | 230 | 16 | 6 | 853 | 816 |
| BUSINESS EDUCATION | 309 | 260 | 50 | 51 | 412 | 398 |
| DISTRIBUTIVE EDUCATION | 36 | 20 | 2 | 3 | 64 | 47 |
| ENGLISH LANGUAGE ARTS(TOTAL) | 752 | 703 | 91 | 78 | 2,490 | 2,369 |
| ENGLISH | 639 | 617 | 82 | 71 | 2,121 | 2,027 |
| JOURNALISM | ... | ... | 1 | ... | 138 | 111 |
| SPEECH AND DRAMATIC ARTS | 113 | 86 | 8 | 7 | 231 | 231 |
| FOREIGN LANGUAGES(TOTAL) | 341 | 291 | 42 | 34 | 1,164 | 1,002 |
| FRFNCH | 146 | 126 | 2 | 7 | 499 | 378 |
| GERMAN | 21 | 13 | ... | ... | 43 | 82 |
| LATIN | 17 | 22 | ... | ... | 30 | 42 |
| RUSSIAN | 1 | ... | ... | ... | 16 | 15 |
| SPANISH | 152 | 129 | 38 | 25 | 500 | 418 |
| OTHER | 4 | 1 | 2 | 2 | 76 | 67 |
| HUME ECONOMICS | 133 | 100 | 26 | 29 | 385 | 353 |
| INDUSTRIAL ARTS | 208 | 184 | 34 | 22 | 406 | 367 |
| JUNIOR HIGH SCHOOL(GENERAL) | 66 | 81 | ... | ... | 136 | 163 |
| MATHEMATICS | 462 | 413 | 25 | 24 | 1,186 | 1,077 |
| MUSIC | 211 | 185 | 16 | 22 | 504 | 507 |
| PHYSICAL & HEALTH EDUCATION | 490 | 414 | 103 | 93 | 887 | 766 |
| NATURAL & PHYSICAL SCIENCES | | | | | | |
| (TOTAL) | 332 | 313 | 30 | 42 | 846 | 759 |
| SUBJECT NOT SPECIFIED | 50 | 72 | 2 | 2 | 188 | 131 |
| GENERAL SCIENCE | 109 | 153 | 4 | 5 | 77 | 75 |
| BIOLOGY | 134 | 75 | 21 | 31 | 425 | 396 |
| CHEMISTRY | 23 | 6 | 3 | 3 | 109 | 102 |
| PHYSICS | 16 | 7 | ... | 1 | 47 | 55 |
| SOCIAL STUDIES(TOTAL) | 685 | 667 | 106 | 101 | 2,453 | 2,202 |
| SUBJECT NOT SPECIFIED | 401 | 465 | 30 | 53 | 2,144 | 1,814 |
| HISTORY, GEOGRAPHY | 130 | 74 | 58 | 25 | 216 | 255 |
| ECONOMICS, SOCIOLOGY, | | | | | | |
| PSYCHOLOGY | 1 | 1 | 4 | 2 | 1 | 17 |
| OTHER SOCIAL STUDIES | 153 | 127 | 14 | 21 | 92 | 116 |
| TRADE, INDUSTRY, TECHNOLOGY | ... | ... | 3 | 3 | 2 | 1 |
| OTHER SECONDARY SUBJECTS | 45 | 21 | ... | ... | 79 | 108 |
| SECONDARY-SCHOOL TOTAL | 4,358 | 3,887 | 557 | 523 | 11,982 | 10,950 |
| UNGRADED | | | | | | |
| SPECIAL EDUCATION | 354 | 346 | 22 | 18 | 495 | 516 |
| LIBRARIAN | 1 | 12 | 4 | 3 | 375 | 296 |
| GUIDANCE COUNSELOR | 302 | 295 | 25 | 18 | 438 | 472 |
| SCHOOL PSYCHOLOGIST | 38 | 24 | ... | ... | 130 | 127 |
| SCHOOL SOCIAL WORKER | 6 | 4 | ... | ... | 224 | 112 |
| SCHOOL NURSE | 80 | 70 | ... | ... | 18 | 53 |
| OTHER UNGRADED | 290 | 263 | ... | 2 | 384 | 402 |

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

| TYPE OF PREPARATION COMPLETED BY STUDENT | NORTH CAROLINA | | NORTH DAKOTA | | OHIO | |
|--|----------------|-------|--------------|-------|-------|-------|
| | 1970 | 1969 | 1970 | 1969 | 1970 | 1969 |
| ELEMENTARY-SCHOOL TOTAL | 2,356 | 2,269 | 576 | 610 | 5,783 | 6,240 |
| REGULAR INSTRUCTION | 2,356 | 2,269 | 565 | 599 | 5,364 | 5,816 |
| SELECTED SUBJECTS(TOTAL) | ... | ... | 11 | 11 | 419 | 424 |
| ART | ... | ... | ... | ... | 100 | 111 |
| FOREIGN LANGUAGES | ... | ... | ... | ... | 27 | 1 |
| MUSIC | ... | ... | 5 | ... | 105 | 97 |
| PHYSICAL & HEALTH EDUCATION | ... | ... | 6 | 11 | 187 | 215 |
| SECONDARY SCHOOL | | | | | | |
| AGRICULTURE | 47 | 23 | 15 | 14 | ... | ... |
| ART | 142 | 119 | 48 | 39 | 378 | 348 |
| BUSINESS EDUCATION | 447 | 392 | 207 | 160 | 499 | 432 |
| DISTRIBUTIVE EDUCATION | ... | ... | 3 | 3 | 24 | 42 |
| ENGLISH LANGUAGE ARTS(TOTAL) | 774 | 721 | 218 | 205 | 2,099 | 1,846 |
| ENGLISH | 774 | 721 | 177 | 163 | 1,771 | 1,543 |
| JOURNALISM | ... | ... | ... | ... | 3 | ... |
| SPEECH AND DRAMATIC ARTS | ... | ... | 41 | 42 | 325 | 303 |
| FOREIGN LANGUAGES(TOTAL) | 216 | 243 | 21 | 19 | 586 | 604 |
| FRENCH | ... | ... | 8 | 6 | 254 | 263 |
| GERMAN | ... | ... | 9 | 7 | 69 | 86 |
| LATIN | ... | ... | ... | ... | 38 | 41 |
| RUSSIAN | ... | ... | ... | ... | 21 | 14 |
| SPANISH | ... | ... | 4 | 6 | 204 | 199 |
| OTHER | 216 | 243 | ... | ... | ... | 1 |
| HOME ECONOMICS | 251 | 205 | 92 | 85 | 447 | 404 |
| INDUSTRIAL ARTS | 79 | 64 | 22 | 34 | 226 | 189 |
| JUNIOR HIGH SCHOOL(GENERAL) | ... | ... | 6 | 1 | ... | 1 |
| MATHEMATICS | 338 | 334 | 130 | 116 | 605 | 539 |
| MUSIC | 220 | 177 | 85 | 50 | 449 | 428 |
| PHYSICAL & HEALTH EDUCATION | 564 | 529 | 228 | 234 | 804 | 699 |
| NATURAL & PHYSICAL SCIENCES (TOTAL) | 294 | 251 | 86 | 81 | 704 | 609 |
| SUBJECT NOT SPECIFIED | 29 | 251 | 3 | 14 | 105 | 130 |
| GENERAL SCIENCE | ... | ... | 2 | ... | 98 | 97 |
| BIOLOGY | ... | ... | 68 | 54 | 403 | 295 |
| CHEMISTRY | ... | ... | 13 | 11 | 74 | 54 |
| PHYSICS | ... | ... | ... | 2 | 24 | 33 |
| SOCIAL STUDIES(TOTAL) | 842 | 760 | 248 | 204 | 1,893 | 1,731 |
| SUBJECT NOT SPECIFIED | 842 | 760 | 132 | 104 | 795 | 933 |
| HISTORY, GEOGRAPHY | ... | ... | 79 | 65 | 788 | 571 |
| ECONOMICS, SOCIOLOGY, PSYCHOLOGY | ... | ... | 37 | 35 | 132 | 83 |
| OTHER SOCIAL STUDIES | ... | ... | ... | ... | 178 | 144 |
| TRADE, INDUSTRY, TECHNOLOGY | 115 | 83 | ... | ... | 44 | 37 |
| OTHER SECONDARY SUBJECTS | 422 | 432 | 2 | 4 | 26 | 32 |
| SECONDARY-SCHOOL TOTAL | 4,751 | 4,333 | 1,411 | 1,249 | 8,784 | 7,941 |
| UNGRADED | | | | | | |
| SPECIAL EDUCATION | 159 | 142 | 52 | 54 | 469 | 385 |
| LIBRARIAN | 62 | 98 | ... | ... | 17 | 28 |
| GUIDANCE COUNSELOR | 208 | 164 | ... | ... | 234 | 253 |
| SCHOOL PSYCHOLOGIST | 4 | 1 | ... | ... | 84 | 79 |
| SCHOOL SOCIAL WORKER | ... | ... | ... | ... | 1 | 1 |
| SCHOOL NURSE | ... | ... | ... | ... | 1 | 5 |
| OTHER UNGRADED | 250 | 234 | ... | ... | 101 | 115 |

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

| TYPE OF PREPARATION COMPLETED BY STUDENT | OKLAHOMA | | OREGON | | PENNSYLVANIA | |
|---|----------|-------|--------|-------|--------------|-------|
| | 1970 | 1969 | 1970 | 1969 | 1970 | 1969 |
| ELEMENTARY-SCHOOL TOTAL | 1,748 | 1,899 | 1,728 | 1,528 | 6,444 | 6,405 |
| REGULAR INSTRUCTION | 1,626 | 1,725 | 1,715 | 1,518 | 6,330 | 6,270 |
| SELECTED SUBJECTS(TOTAL) | 122 | 174 | 13 | 10 | 114 | 135 |
| ART | 35 | 45 | 4 | 2 | 33 | 49 |
| FOREIGN LANGUAGES | ... | ... | ... | ... | 25 | 44 |
| MUSIC | 64 | 69 | 9 | 8 | 25 | 29 |
| PHYSICAL & HEALTH EDUCATION | 23 | 60 | ... | ... | 31 | 13 |
| SECONDARY SCHOOL | | | | | | |
| AGRICULTURE | 106 | 101 | 10 | 7 | 28 | 19 |
| ART | 108 | 99 | 135 | 100 | 530 | 473 |
| BUSINESS EDUCATION | 34 | 335 | 107 | 82 | 466 | 448 |
| DISTRIBUTIVE EDUCATION | 5 | 3 | ... | ... | 24 | 23 |
| ENGLISH LANGUAGE ARTS(TOTAL) | 568 | 617 | 487 | 417 | 1,814 | 1,797 |
| ENGLISH | 488 | 532 | 390 | 326 | 1,750 | 1,740 |
| JOURNALISM | 4 | 5 | 13 | 10 | ... | ... |
| SPEECH AND DRAMATIC ARTS | 76 | 80 | 84 | 81 | 64 | 57 |
| FOREIGN LANGUAGES(TOTAL) | 94 | 92 | 139 | 117 | 886 | 842 |
| FRENCH | 25 | 28 | 46 | 40 | 364 | 339 |
| GERMAN | 1 | 1 | 34 | 27 | 121 | 127 |
| LATIN | ... | ... | ... | 1 | 35 | 23 |
| RUSSIAN | ... | ... | 2 | 1 | 17 | 16 |
| SPANISH | 36 | 33 | 57 | 48 | 325 | 310 |
| OTHER | 30 | 30 | ... | ... | 24 | 27 |
| HOME ECONOMICS | 109 | 137 | 111 | 102 | 455 | 411 |
| INDUSTRIAL ARTS | 132 | 140 | 25 | 17 | 270 | 230 |
| JUNIOR HIGH SCHOOL(GENERAL) | ... | ... | 25 | 20 | ... | ... |
| MATHEMATICS | 181 | 221 | 122 | 126 | 1,107 | 1,043 |
| MUSIC | 202 | 162 | 116 | 99 | 548 | 516 |
| PHYSICAL & HEALTH EDUCATION | 255 | 246 | 402 | 258 | 882 | 797 |
| NATURAL & PHYSICAL SCIENCES (TOTAL) | 245 | 224 | 138 | 129 | 901 | 838 |
| SUBJECT NOT SPECIFIED | 144 | 130 | ... | ... | 109 | 75 |
| GENERAL SCIENCE | 38 | 32 | 49 | 39 | 118 | 117 |
| BIOLOGY | 53 | 52 | 68 | 75 | 470 | 467 |
| CHEMISTRY | 8 | 9 | 18 | 11 | 142 | 134 |
| PHYSICS | 2 | 1 | 3 | 4 | 62 | 45 |
| SOCIAL STUDIES(TOTAL) | 570 | 556 | 417 | 344 | 2,206 | 1,995 |
| SUBJECT NOT SPECIFIED | 425 | 384 | 407 | 318 | 1,091 | 968 |
| HISTORY, GEOGRAPHY | 80 | 120 | 9 | 25 | 780 | 774 |
| ECONOMICS, SOCIOLOGY, PSYCHOLOGY | 64 | 52 | 1 | 1 | 46 | 24 |
| OTHER SOCIAL STUDIES | 1 | ... | ... | ... | 289 | 229 |
| TRADE, INDUSTRY, TECHNOLOGY | 86 | 83 | 20 | 18 | 18 | 27 |
| OTHER SECONDARY SUBJECTS | ... | ... | ... | ... | 8 | 20 |
| SECONDARY-SCHOOL TOTAL | 3,006 | 3,016 | 2,254 | 1,836 | 10,143 | 9,479 |
| UNGRADED | | | | | | |
| SPECIAL EDUCATION | 193 | 216 | 63 | 51 | 551 | 581 |
| LIBRARIAN | 56 | 54 | 11 | 9 | 228 | 277 |
| GUIDANCE COUNSELOR | 66 | 96 | 25 | ... | 83 | 137 |
| SCHOOL PSYCHOLOGIST | 6 | 4 | ... | ... | 1 | 1 |
| SCHOOL SOCIAL WORKER | ... | ... | ... | ... | ... | ... |
| SCHOOL NURSE | 1 | 1 | ... | ... | 185 | 205 |
| OTHER UNGRADED | 119 | 111 | ... | ... | 120 | 143 |

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

| TYPE OF PREPARATION COMPLETED BY STUDENT | RHODE ISLAND | | SOUTH CAROLINA | | SOUTH DAKOTA | |
|--|--------------|------|----------------|-------|--------------|-------|
| | 1970 | 1969 | 1970 | 1969 | 1970 | 1969 |
| ELEMENTARY-SCHOOL TOTAL | 486 | 492 | 1,042 | 922 | 861 | 820 |
| REGULAR INSTRUCTION | 446 | 460 | 1,026 | 912 | 861 | 820 |
| SELECTED SUBJECTS(TOTAL) | 40 | 32 | 16 | 10 | ... | ... |
| ART | 40 | 32 | ... | ... | ... | ... |
| FOREIGN LANGUAGES | ... | ... | ... | ... | ... | ... |
| MUSIC | ... | ... | 16 | 10 | ... | ... |
| PHYSICAL & HEALTH EDUCATION | ... | ... | ... | ... | ... | ... |
| SECONDARY SCHOOL | | | | | | |
| AGRICULTURE | 7 | 5 | 24 | 32 | 22 | 21 |
| ART | 2 | 4 | 40 | 43 | 62 | 51 |
| BUSINESS EDUCATION | 66 | 61 | 76 | 119 | 155 | 128 |
| DISTRIBUTIVE EDUCATION | 2 | ... | 31 | 3 | ... | ... |
| ENGLISH LANGUAGE ARTS(TOTAL) | 143 | 119 | 321 | 340 | 293 | 231 |
| ENGLISH | 143 | 119 | 291 | 316 | 226 | 198 |
| JOURNALISM | ... | ... | ... | ... | 4 | 2 |
| SPEECH AND DRAMATIC ARTS | ... | ... | 30 | 24 | 63 | 31 |
| FOREIGN LANGUAGES(TOTAL) | 78 | 65 | 89 | 79 | 66 | 57 |
| FRENCH | 56 | 48 | 35 | 31 | 12 | 9 |
| GERMAN | 2 | 1 | 5 | 2 | 33 | 28 |
| LATIN | 3 | 2 | 2 | 2 | ... | ... |
| RUSSIAN | ... | ... | ... | ... | ... | ... |
| SPANISH | 11 | 11 | 21 | 13 | 17 | 20 |
| OTHER | 6 | 3 | 26 | 31 | 4 | ... |
| HOME ECONOMICS | 30 | 33 | 60 | 70 | 64 | 58 |
| INDUSTRIAL ARTS | 23 | 18 | 11 | 11 | 66 | 58 |
| JUNIOR HIGH SCHOOL(GENERAL) | 1 | 2 | ... | ... | ... | ... |
| MATHEMATICS | 51 | 48 | 132 | 131 | 120 | 106 |
| MUSIC | 14 | 18 | 67 | 70 | 93 | 82 |
| PHYSICAL & HEALTH EDUCATION | 50 | 36 | 151 | 168 | 270 | 206 |
| NATURAL & PHYSICAL SCIENCES (TOTAL) | 43 | 27 | 130 | 154 | 89 | 82 |
| SUBJECT NOT SPECIFIED | 8 | ... | 13 | 8 | 6 | 7 |
| GENERAL SCIENCE | 6 | 7 | 26 | 26 | 4 | 2 |
| BIOLOGY | 29 | 16 | 77 | 104 | 62 | 55 |
| CHEMISTRY | ... | 4 | 11 | 14 | 12 | 17 |
| PHYSICS | ... | ... | 3 | 2 | 5 | 1 |
| SOCIAL STUDIES(TOTAL) | 136 | 131 | 366 | 380 | 410 | 326 |
| SUBJECT NOT SPECIFIED | 66 | 61 | 131 | 154 | 61 | 70 |
| HISTORY, GEOGRAPHY | 70 | 70 | 155 | 143 | 187 | 147 |
| ECONOMICS, SOCIOLOGY, PSYCHOLOGY | ... | ... | 38 | 36 | 89 | 53 |
| OTHER SOCIAL STUDIES | ... | ... | 42 | 47 | 73 | 56 |
| TRADE, INDUSTRY, TECHNOLOGY | ... | ... | 3 | 2 | 20 | 15 |
| OTHER SECONDARY SUBJECTS | ... | ... | ... | 30 | 1 | ... |
| SECONDARY-SCHOOL TOTAL | 646 | 567 | 1,501 | 1,632 | 1,731 | 1,421 |
| UNGRADED | | | | | | |
| SPECIAL EDUCATION | 3 | 13 | 70 | 58 | 41 | 49 |
| LIBRARIAN | ... | 20 | 27 | 28 | 1 | 5 |
| GUIDANCE COUNSELOR | 10 | 21 | 17 | 12 | 84 | 57 |
| SCHOOL PSYCHOLOGIST | ... | ... | ... | ... | ... | ... |
| SCHOOL SOCIAL WORKER | ... | ... | ... | ... | ... | ... |
| SCHOOL NURSE | 5 | 5 | ... | ... | ... | ... |
| OTHER UNGRADED | ... | ... | 15 | 3 | ... | ... |

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

| TYPE OF PREPARATION COMPLETED BY STUDENT | TENNESSEE | | TEXAS | | UTAH | |
|--|-----------|-------|-------|-------|-------|-------|
| | 1970 | 1969 | 1970 | 1969 | 1970 | 1969 |
| ELEMENTARY-SCHOOL TOTAL | 1,918 | 1,831 | 6,846 | 6,440 | 1,103 | 1,100 |
| REGULAR INSTRUCTION | 1,918 | 1,831 | 5,775 | 5,529 | 1,103 | 1,100 |
| SELECTED SUBJECTS(TOTAL) | ... | ... | 1,071 | 911 | ... | ... |
| ART | ... | ... | 291 | 243 | ... | ... |
| FOREIGN LANGUAGES | ... | ... | ... | ... | ... | ... |
| MUSIC | ... | ... | 377 | 378 | ... | ... |
| PHYSICAL & HEALTH EDUCATION | ... | ... | 403 | 290 | ... | ... |
| SECONDARY SCHOOL | | | | | | |
| AGRICULTURE | 35 | 16 | 251 | 224 | 12 | 14 |
| ART | 69 | 60 | 159 | 110 | 51 | 50 |
| BUSINESS EDUCATION | 345 | 302 | 832 | 680 | 115 | 114 |
| DISTRIBUTIVE EDUCATION | ... | ... | ... | ... | 20 | 16 |
| ENGLISH LANGUAGE ARTS(TOTAL) | 718 | 692 | 2,102 | 1,691 | 346 | 327 |
| ENGLISH | 659 | 642 | 1,570 | 1,274 | 241 | 242 |
| JOURNALISM | ... | ... | 111 | 96 | 7 | 5 |
| SPEECH AND DRAMATIC ARTS | 59 | 50 | 421 | 321 | 98 | 80 |
| FOREIGN LANGUAGES(TOTAL) | 138 | 129 | 688 | 495 | 139 | 111 |
| FRENCH | 58 | 53 | 136 | 114 | 43 | 35 |
| GERMAN | 4 | 1 | 56 | 38 | 30 | 24 |
| LATIN | 9 | 8 | 37 | 23 | 4 | 3 |
| RUSSIAN | ... | 1 | ... | ... | 4 | 2 |
| SPANISH | 61 | 62 | 455 | 314 | 58 | 47 |
| OTHER | 6 | 4 | 4 | 6 | ... | ... |
| HOME ECONOMICS | 263 | 257 | 622 | 539 | 179 | 158 |
| INDUSTRIAL ARTS | 56 | 49 | 280 | 228 | 118 | 100 |
| JUNIOR HIGH SCHOOL(GENERAL) | ... | ... | ... | ... | ... | ... |
| MATHEMATICS | 243 | 199 | 646 | 509 | 68 | 56 |
| MUSIC | 219 | 191 | 170 | 77 | 85 | 77 |
| PHYSICAL & HEALTH EDUCATION | 544 | 460 | 944 | 750 | 258 | 219 |
| NATURAL & PHYSICAL SCIENCES (TOTAL) | 419 | 405 | 764 | 519 | 99 | 95 |
| SUBJECT NOT SPECIFIED | ... | ... | 209 | 141 | 5 | 5 |
| GENERAL SCIENCE | 91 | 71 | ... | ... | 26 | 22 |
| BIOLOGY | 242 | 248 | 435 | 299 | 53 | 58 |
| CHEMISTRY | 59 | 62 | 88 | 68 | 7 | 4 |
| PHYSICS | 27 | 24 | 32 | 11 | 8 | 6 |
| SOCIAL STUDIES(TOTAL) | 1,177 | 1,103 | 1,696 | 1,407 | 313 | 269 |
| SUBJECT NOT SPECIFIED | 197 | 199 | 441 | 335 | 1 | 4 |
| HISTORY, GEOGRAPHY | 608 | 559 | 982 | 848 | 154 | 124 |
| ECONOMICS, SOCIOLOGY, PSYCHOLOGY | 323 | 303 | 36 | 14 | 129 | 108 |
| OTHER SOCIAL STUDIES | 49 | 42 | 237 | 210 | 29 | 33 |
| TRADE, INDUSTRY, TECHNOLOGY | 5 | 6 | ... | ... | 2 | 3 |
| OTHER SECONDARY SUBJECTS | 98 | 92 | 158 | 173 | ... | ... |
| SECONDARY-SCHOOL TOTAL | 4,329 | 3,961 | 9,312 | 7,402 | 1,805 | 1,609 |
| UNGRADED | | | | | | |
| SPECIAL EDUCATION | 50 | 39 | 625 | 713 | 61 | 120 |
| LIBRARIAN | 22 | 20 | 137 | 138 | 14 | 11 |
| GUIDANCE COUNSELOR | 43 | 40 | ... | ... | 42 | 71 |
| SCHOOL PSYCHOLOGIST | ... | ... | ... | ... | 9 | 15 |
| SCHOOL SOCIAL WORKER | ... | ... | ... | ... | ... | 1 |
| SCHOOL NURSE | ... | ... | ... | ... | ... | ... |
| OTHER UNGRADED | 50 | 35 | 4 | 4 | 37 | 40 |

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

| TYPE OF PREPARATION COMPLETED BY STUDENT | VERMONT | | VIRGINIA | | WASHINGTON | |
|--|---------|------|----------|-------|------------|-------|
| | 1970 | 1969 | 1970 | 1969 | 1970 | 1969 |
| ELEMENTARY-SCHOOL TOTAL | 300 | 281 | 1,513 | 1,479 | 2,486 | 2,041 |
| REGULAR INSTRUCTION | 298 | 277 | 1,492 | 1,454 | 2,139 | 1,730 |
| SELECTED SUBJECTS(TOTAL) | 2 | 4 | 21 | 25 | 347 | 311 |
| ART | 2 | 2 | 9 | 14 | 96 | 100 |
| FOREIGN LANGUAGES | ... | ... | 9 | 2 | 104 | 60 |
| MUSIC | ... | 2 | 3 | 6 | 96 | 101 |
| PHYSICAL & HEALTH EDUCATION | ... | ... | ... | 3 | 51 | 50 |
| SECONDARY SCHOOL | | | | | | |
| AGRICULTURE | 12 | 19 | 45 | 51 | 11 | 13 |
| ART | ... | ... | 122 | 100 | 181 | 141 |
| BUSINESS EDUCATION | 28 | 21 | 199 | 188 | 160 | 143 |
| DISTRIBUTIVE EDUCATION | ... | ... | 76 | 71 | 15 | ... |
| ENGLISH LANGUAGE ARTS(TOTAL) | 86 | 72 | 492 | 459 | 1,080 | 626 |
| ENGLISH | 85 | 72 | 470 | 438 | 939 | 543 |
| JOURNALISM | ... | ... | 2 | ... | 23 | 4 |
| SPEECH AND DRAMATIC ARTS | 1 | ... | 20 | 21 | 118 | 79 |
| FOREIGN LANGUAGES(TOTAL) | 14 | 14 | 168 | 160 | 195 | 188 |
| FRENCH | 9 | 11 | 79 | 75 | 68 | 46 |
| GERMAN | 2 | ... | 6 | 8 | 44 | 30 |
| LATIN | ... | 2 | 17 | 13 | 5 | 3 |
| RUSSIAN | 2 | ... | ... | ... | 9 | 5 |
| SPANISH | 1 | 1 | 66 | 64 | 67 | 41 |
| OTHER | ... | ... | ... | ... | 2 | 63 |
| HOME ECONOMICS | 12 | 14 | 116 | 134 | 234 | 217 |
| INDUSTRIAL ARTS | ... | ... | 47 | 45 | 95 | 78 |
| JUNIOR HIGH SCHOOL(GENERAL) | ... | ... | ... | ... | ... | ... |
| MATHEMATICS | 22 | 29 | 200 | 186 | 161 | 156 |
| MUSIC | 6 | 7 | 133 | 126 | 147 | 113 |
| PHYSICAL & HEALTH EDUCATION | 28 | 13 | 308 | 248 | 387 | 377 |
| NATURAL & PHYSICAL SCIENCES (TOTAL) | 26 | 31 | 170 | 156 | 336 | 190 |
| SUBJECT NOT SPECIFIED | 4 | 9 | 14 | 6 | 117 | 55 |
| GENERAL SCIENCE | 9 | 8 | 16 | 19 | 23 | 14 |
| BIOLOGY | 10 | 10 | 117 | 108 | 146 | 94 |
| CHEMISTRY | 2 | 2 | 17 | 19 | 32 | 20 |
| PHYSICS | 1 | 2 | 6 | 4 | 18 | 7 |
| SOCIAL STUDIES(TOTAL) | 95 | 79 | 563 | 515 | 1,004 | 546 |
| SUBJECT NOT SPECIFIED | 51 | 52 | 81 | 105 | 417 | ... |
| HISTORY, GEOGRAPHY, ECONOMICS, SOCIOLOGY, PSYCHOLOGY | 32 | 22 | 344 | 310 | 357 | 220 |
| OTHER SOCIAL STUDIES | 9 | 3 | 42 | 34 | 93 | 44 |
| TRADE, INDUSTRY, TECHNOLOGY | 3 | 2 | 96 | 66 | 137 | 282 |
| OTHER SECONDARY SUBJECTS | ... | ... | 47 | 29 | 8 | 8 |
| SECONDARY-SCHOOL TOTAL | 2 | 1 | 1 | ... | ... | ... |
| SECONDARY-SCHOOL TOTAL | 331 | 300 | 2,687 | 2,468 | 4,014 | 2,796 |
| UNGRADED | | | | | | |
| SPECIAL EDUCATION | 17 | 7 | 136 | 97 | 82 | 121 |
| LIBRARIAN | ... | ... | 65 | 80 | 4 | 4 |
| GUIDANCE COUNSELOR | 1 | ... | 75 | 61 | ... | ... |
| SCHOOL PSYCHOLOGIST | ... | ... | ... | ... | ... | ... |
| SCHOOL SOCIAL WORKER | ... | ... | ... | ... | ... | 13 |
| SCHOOL NURSE | ... | ... | ... | 1 | ... | 41 |
| OTHER UNGRADED | 9 | ... | 75 | 23 | 93 | 96 |

TABLE A. -- NUMBER OF STUDENTS COMPLETING PREPARATION FOR STANDARD TEACHING CERTIFICATES, BY TYPE OF PREPARATION, YEAR, AND STATE (CONTINUED)

| TYPE OF PREPARATION COMPLETED BY STUDENT | WEST VIRGINIA | | WISCONSIN | | WYOMING | |
|--|---------------|-------|-----------|-------|---------|------|
| | 1970 | 1969 | 1970 | 1969 | 1970 | 1969 |
| ELEMENTARY-SCHOOL TOTAL | 1,035 | 899 | 2,844 | 2,795 | 161 | 130 |
| REGULAR INSTRUCTION | 1,035 | 899 | 2,741 | 2,712 | 161 | 130 |
| SELECTED SUBJECTS(TOTAL) | ... | ... | 103 | 83 | ... | ... |
| ART | ... | ... | 35 | 26 | ... | ... |
| FOREIGN LANGUAGES | ... | ... | 4 | 1 | ... | ... |
| MUSIC | ... | ... | 45 | 37 | ... | ... |
| PHYSICAL & HEALTH EDUCATION | ... | ... | 19 | 19 | ... | ... |
| SECONDARY SCHOOL | | | | | | |
| AGRICULTURE | 11 | 14 | 73 | 65 | 17 | 9 |
| ART | 71 | 54 | 258 | 220 | 16 | 15 |
| BUSINESS EDUCATION | 137 | 127 | 140 | 134 | 23 | 12 |
| DISTRIBUTIVE EDUCATION | 4 | 7 | 13 | ... | 1 | 5 |
| ENGLISH LANGUAGE ARTS(TOTAL) | 391 | 348 | 766 | 756 | 69 | 45 |
| ENGLISH | 327 | 290 | 648 | 643 | 55 | 40 |
| JOURNALISM | 11 | 6 | 5 | 4 | ... | ... |
| SPEECH AND DRAMATIC ARTS | 53 | 52 | 113 | 109 | 14 | 5 |
| FOREIGN LANGUAGES(TOTAL) | 56 | 65 | 313 | 293 | 16 | 12 |
| FRENCH | 30 | 41 | 137 | 124 | 4 | 2 |
| GERMAN | 2 | 1 | 47 | 33 | 5 | 2 |
| LATIN | 3 | 6 | 12 | 18 | ... | ... |
| RUSSIAN | 1 | ... | 3 | 8 | ... | ... |
| SPANISH | 20 | 17 | 112 | 108 | 7 | 8 |
| OTHER | ... | ... | 2 | 2 | ... | ... |
| HOME ECONOMICS | 177 | 148 | 297 | 239 | 18 | 15 |
| INDUSTRIAL ARTS | 57 | 64 | 285 | 258 | 21 | 17 |
| JUNIOR HIGH SCHOOL(GENERAL) | ... | ... | 12 | 18 | 10 | 7 |
| MATHEMATICS | 129 | 115 | 283 | 265 | 19 | 14 |
| MUSIC | 143 | 122 | 211 | 193 | 11 | 11 |
| PHYSICAL & HEALTH EDUCATION | 417 | 353 | 468 | 370 | 28 | 31 |
| NATURAL & PHYSICAL SCIENCES (TOTAL) | 160 | 146 | 332 | 313 | 22 | 21 |
| SUBJECT NOT SPECIFIED | 1 | ... | 13 | 16 | 2 | 1 |
| GENERAL SCIENCE | 7 | 3 | 49 | 38 | ... | ... |
| BIOLOGY | 118 | 121 | 212 | 202 | 18 | 20 |
| CHEMISTRY | 21 | 16 | 44 | 43 | ... | ... |
| PHYSICS | 13 | 6 | 14 | 14 | 2 | ... |
| SOCIAL STUDIES(TOTAL) | 516 | 424 | 864 | 624 | 56 | 37 |
| SUBJECT NOT SPECIFIED | 514 | 419 | 155 | 131 | 55 | 37 |
| HISTORY, GEOGRAPHY | 2 | 5 | 526 | 386 | ... | ... |
| ECONOMICS, SOCIOLOGY, PSYCHOLOGY | ... | ... | 98 | 54 | 1 | ... |
| OTHER SOCIAL STUDIES | ... | ... | 85 | 53 | ... | ... |
| TRADE, INDUSTRY, TECHNOLOGY | ... | ... | 41 | 38 | ... | ... |
| OTHER SECONDARY SUBJECTS | ... | ... | 39 | 50 | ... | ... |
| SECONDARY-SCHOOL TOTAL | 2,269 | 1,987 | 4,395 | 3,836 | 327 | 251 |
| UNGRADED | | | | | | |
| SPECIAL EDUCATION | 44 | 32 | 249 | 250 | 8 | 14 |
| LIBRARIAN | 4 | 7 | 92 | 73 | ... | 1 |
| GUIDANCE COUNSELOR | ... | ... | 84 | 66 | ... | 1 |
| SCHOOL PSYCHOLOGIST | ... | ... | 15 | 9 | ... | ... |
| SCHOOL SOCIAL WORKER | ... | ... | ... | ... | ... | ... |
| SCHOOL NURSE | ... | ... | ... | ... | ... | ... |
| OTHER UNGRADED | ... | ... | 48 | 84 | ... | ... |

TABLE B.--LOW, MEDIAN, HIGH, AND MEAN PERCENTS OF TEACHERS
WHO WERE NEW IN 19 STATES, 1969-70

| Assignment | Low | Median | High | Mean | Number of states reporting |
|---|------|--------|-------|-------|----------------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| ELEMENTARY | | | | | |
| Regular instruction | 5.2% | 12.9% | 35.7% | 17.1% | 19 |
| Art | 7.1 | 22.4 | 29.5 | 18.9 | 13 |
| Foreign languages | 0.0 | 14.3 | 40.0 | 11.0 | 11 |
| Music | 3.7 | 15.8 | 37.3 | 19.0 | 14 |
| Physical and health education | 10.0 | 13.1 | 57.0 | 27.0 | 14 |
| Special education | 2.8 | 13.3 | 21.8 | 16.3 | 15 |
| SECONDARY | | | | | |
| Agriculture | 0.0 | 9.6 | 27.0 | 13.4 | 18 |
| Art | 1.5 | 16.0 | 45.0 | 21.7 | 19 |
| Business education | 6.2 | 11.2 | 32.3 | 16.6 | 19 |
| Distributive education | 0.0 | 16.8 | 55.6 | 14.7 | 15 |
| English languages arts | 9.8 | 16.6 | 39.7 | 20.9 | 19 |
| Foreign languages | 8.8 | 16.5 | 43.0 | 21.8 | 19 |
| Home economics | 6.8 | 12.6 | 35.3 | 16.9 | 19 |
| Industrial arts | 6.1 | 12.0 | 30.7 | 16.2 | 19 |
| Junior high school | 0.0 | 15.2 | 37.5 | 34.6 | 7 |
| Mathematics | 5.7 | 14.2 | 38.2 | 17.5 | 19 |
| Music | 2.3 | 13.0 | 44.0 | 17.1 | 19 |
| Physical and health education | 5.7 | 12.8 | 36.1 | 17.5 | 19 |
| Men | 6.4 | 11.0 | 17.3 | 11.7 | 6 |
| Women | 6.9 | 12.8 | 25.1 | 16.0 | 6 |
| Natural and physical sciences | 5.1 | 15.4 | 38.4 | 18.4 | 15 |
| Social studies | 6.3 | 12.6 | 34.5 | 15.3 | 19 |
| Trade, industrial, vocational, technical | 3.1 | 10.0 | 22.6 | 13.9 | 17 |
| Special education | 6.7 | 16.7 | 39.1 | 17.4 | 17 |
| Other secondary subjects | 0.0 | 9.0 | 12.9 | 11.2 | 8 |
| LIBRARIAN | | | | | |
| Elementary | 0.0 | 8.7 | 52.4 | 9.1 | 15 |
| Secondary | 4.4 | 10.7 | 40.2 | 10.6 | 15 |
| GUIDANCE COUNSELOR | | | | | |
| Elementary | 3.6 | 7.1 | 30.8 | 8.0 | 15 |
| Secondary | 1.5 | 3.3 | 8.9 | 4.0 | 17 |

TABLE C.--LOW, MEDIAN, HIGH, AND MEAN PERCENTS OF NEW TEACHERS WHO WERE
RE-ENTERING CLASSROOMS FOLLOWING AN INTERRUPTION OF AT LEAST
ONE YEAR, IN 18 STATES, 1969-70

| Assignment | Low | Median | High | Mean | Number of states reporting |
|---|------|--------|-------|-------|----------------------------------|
| 1 | 2 | 3 | 4 | 5 | 6 |
| ELEMENTARY | | | | | |
| Regular instruction | 7.0% | 26.2% | 79.5% | 47.0% | 18 |
| Art | 0.0 | 25.9 | 100.0 | 31.6 | 14 |
| Foreign languages | 0.0 | 0.0 | 100.0 | 30.0 | 9 |
| Music | 10.0 | 39.1 | 81.2 | 59.2 | 15 |
| Physical and health education | 0.0 | 17.1 | 79.0 | 45.6 | 15 |
| Special education | 5.1 | 27.5 | 87.1 | 37.0 | 16 |
| SECONDARY | | | | | |
| Agriculture | 0.0 | 27.8 | 100.0 | 42.3 | 15 |
| Art | 2.6 | 20.0 | 100.0 | 28.9 | 18 |
| Business education | 0.0 | 18.5 | 74.9 | 41.5 | 18 |
| Distributive education | 0.0 | 21.1 | 100.0 | 31.9 | 12 |
| English language arts | 8.1 | 20.0 | 77.8 | 36.9 | 18 |
| Foreign languages | 10.3 | 21.9 | 76.5 | 39.5 | 18 |
| Home economics | 10.0 | 26.4 | 77.0 | 43.6 | 18 |
| Industrial arts | 0.0 | 18.4 | 74.2 | 40.8 | 18 |
| Junior high school | 6.1 | 29.1 | 75.8 | 71.2 | 10 |
| Mathematics | 3.4 | 19.2 | 74.4 | 33.8 | 18 |
| Music | 7.1 | 28.2 | 89.6 | 39.0 | 18 |
| Physical and health education | 4.9 | 20.2 | 76.9 | 40.2 | 18 |
| Men | 5.7 | 22.3 | 79.7 | 50.9 | 11 |
| Women | 9.8 | 31.4 | 67.9 | 37.1 | 11 |
| Natural and physical sciences | 3.6 | 27.6 | 78.3 | 36.5 | 15 |
| Social studies | 5.9 | 14.8 | 74.4 | 30.4 | 18 |
| Trade, industrial, vocational, technical | 0.0 | 19.1 | 100.0 | 33.3 | 16 |
| Special education | 6.1 | 25.0 | 83.3 | 29.1 | 17 |
| Other secondary subjects | 10.0 | 34.7 | 100.0 | 37.3 | 7 |
| LIBRARIAN | | | | | |
| Elementary | 0.0 | 50.0 | 100.0 | 53.9 | 15 |
| Secondary | 2.9 | 42.1 | 69.0 | 42.1 | 17 |
| GUIDANCE COUNSELOR | | | | | |
| Elementary | 0.0 | 41.2 | 100.0 | 57.1 | 15 |
| Secondary | 30.0 | 71.9 | 100.0 | 72.4 | 16 |

TABLE D.—RESPONSES TO THE SPECIAL SURVEY OF TEACHER SUPPLY AND DEMAND IN SUMMER 1970, BY STATE

| State | Applicants compared with teaching position vacancies | | | | Comparison with conditions last year | | | | Much less acute | |
|------------------------|--|---|---------------------------|--------------------|--------------------------------------|------------|----------------|------------|-----------------|----|
| | Some shortage | Sufficient applicants to fill positions | Shortage in some subjects | Substantial excess | Much more acute | More acute | About the same | Less acute | | |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| Alabama | | | X | | | | | | X | |
| Alaska | | | | | | | | | | X |
| Arizona | | | | | X | | | | | X |
| Arkansas | | | | | | | | X | | |
| California | | | | | | | | | X | X |
| Colorado | | | | | X | | | | X | X |
| Connecticut | | | | | | | | | X | X |
| Delaware | | | | | | | | | X | X |
| Florida | | | | | | | | | X | X |
| Georgia | X | | | | | | | X | | |
| Hawaii | | | | | | | | | X | X |
| Idaho | | | | | | | | | | |
| Illinois | | | X | | | | | | X | X |
| Indiana | | | X | | | | | | X | X |
| Iowa | | | X | | | | | | X | X |
| Kansas | | | | | | | | | X | X |
| Kentucky | | | | | | | | | | |
| Louisiana | | | | | | | | X | | |
| Maine | | | | | | | | X | | |
| Maryland | | | | | | | | X | | |
| Massachusetts | | | | | | | | | X | X |
| Michigan | | | | | | | | | X | X |
| Minnesota | | | X | | | | | | X | X |
| Mississippi | | | | | X | | | | X | X |
| Missouri | | | | | | | | | X | X |
| Montana | | | | | | | | | X | X |
| Nebraska | | | | | | | | | X | X |
| Nevada | | | | | | | | | | |
| New Hampshire | | | | | | | | | | X |
| New Jersey | | | | | | | | | X | X |
| New Mexico | | | | | | | | | X | X |
| New York | | | | | | | | | | |
| North Carolina | | | | | | | | | X | X |
| North Dakota | | | | | | | | | X | X |
| Ohio | | | | | | | | | X | X |
| Oklahoma | | | | | | | | | X | X |
| Oregon | | | | | | | | | X | X |
| Pennsylvania | | | | | | | | | X | X |
| Rhode Island | | | | | | | | | X | X |
| South Carolina | | | | | | | | X | | |
| South Dakota | | | | | | | | X | | |
| Tennessee | | | | | | | | | X | X |
| Texas | X | | | | | | | | X | X |
| Utah | | | | | | | | | X | X |
| Vermont | | | | | | | | X | | |
| Virginia | | | | | | | | | X | X |
| Washington | | | | | | | | | X | X |
| West Virginia | | | | | X | | | | X | X |
| Wisconsin | | | | | | | | | X | X |
| Wyoming | | | | | | | | X | | |
| Total number of states | 2 | 7 | 35 | 1 | 4 | 1 | 1 | 7 | 31 | 8 |

(Information not available)

TABLE E.--STATE AUTHORITIES WHO ARE MAJOR
CONTRIBUTORS TO THE STUDY

ALABAMA--W. Morrison McCall, State Department of Education
ALASKA--Mrs. Norma S. Bowkett, State Department of Education
ARIZONA--Herschel Hooper, State Department of Public Instruction
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