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ABSTRACT

This national survey is broken down into four main sections: 1) supply of new teachers; 2) demand for new teachers; 3) supply compared with demand for new teachers; 4) education completed by public school teachers. In the first section statistics are given for education majors graduated in each subject field and in each state. The number of new graduates going into teaching and the number and career choice of those not going into teaching is given. The second section outlines the criteria for estimating demand for "new teachers" (those who have taught before but not in the previous academic year) and "beginning teachers" (those who have never taught). It then presents statistics on the demand for these two types of teachers according to subject field and state. The third section compares supply with demand and develops statistics on trends in each subject field and in each state. The fourth section compares the educational background of elementary and secondary school teachers in different subject fields and states. As a supplement to the main part of the report, a special section presents the results of a survey of state departments of education and the nation's 76 largest school systems which asked for general impressions of the current status of teacher supply and demand in that area. (RT)

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Research Report 1970-R14: TEACHER SUPPLY AND DEMAND IN PUBLIC SCHOOLS, 1969

Project Director: WILLIAM S. GRAYBEAL, Assistant Director

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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 22nd annual survey of the supply and demand for public-school teachers continues this tradition.

Continuing the changes initiated in the 1966 edition, the 1969 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 1969 by respondents in state departments of education and in the nation's 76 largest school systems. These two special surveys were designed to supplement the national estimates, identify the status of teacher supply and demand in various types of school systems, and to review the conditions having influence on teacher supply and demand in late summer 1967. The results of these inquiries are given on pages six to 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 promptly and willingly responded to the supplemental inquiries on the shortage of teachers.

This report has been 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 287,549 persons completed teacher preparation programs with at least a bachelor's degree between September 1968 and August 31, 1969, an increase of 19.1 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 1969 comprises 290,950 in elementary schools and 192,450 in secondary schools, making a total of 483,400.
- The number of new teachers needed in 1969-70, as projected from trends in the improvement of staffing characteristics in recent years, adjusted for the impact of the Elementary and Secondary Education Act of 1965 (Adjusted Trend Criterion Estimate), comprises 107,400 in elementary schools and 108,300 in secondary schools, making a total of 215,700.
- The record graduating class this year marks the end of a long period of GENERAL national shortages of qualified beginning teachers needed to fill the vacancies occurring with current staffing patterns; however, shortages continue in certain subject areas and geographic locations.
- The Quality Criterion Estimate of demand exceeds the expected supply of new teachers by 224,200, provided the turnover and re-entry rates of qualified experienced teachers approximates that of recent years. This shortage comprises 167,300 teachers at the elementary-school level and 60,900 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 1968-69, the widespread shortages of beginning teachers are expected to continue in secondary-school mathematics and secondary-school sciences. Shortages are likely in special education, vocational-technical courses, women's physical and health education, industrial arts, and in distributive education, in which it is estimated there is a short supply of beginning teachers.
- Two special surveys of appropriate officials in state departments of education and in 76 of the nation's largest school systems in late summer 1969 show that shortages of qualified teachers are continuing in all of the assignments listed above except distributive education.
- As a result of the record size of the graduating class, only 4 states reported having a smaller number of qualified teacher applicants, with the following most frequently identified as contributing to the lower supply: greater opportunities in business and industry, salaries and benefits not attractive, and location of vacancies not attractive. Among 13 states reporting increased demand for qualified teachers this year the major factors contributing to this condition were increased school enrollment in 11 states, reduction in class size in 9 states, new positions related to federal programs in 7 states, and added curricular offerings in 7 states.

## SPECIAL SURVEYS OF TEACHER SUPPLY AND DEMAND

Two special surveys were conducted in mid-summer 1969 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 1969 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 first week in August. The second survey was sent to the nation's 80 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 1969-70, (b) whether they have had to employ persons with substandard qualifications, and (c) the number of unfilled positions in the last week of July 1969.

### 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 1969 was as follows:

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

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

The situation regarding qualified teacher applicants in late July 1969 compared with 1968 was reported by 18 states as being about the same, and by 26 states as being less acute. Three of the states reported the condition to be much less acute than one year ago. None of the states reported the condition to be much more acute or more acute than one year ago. Three states did not have sufficient information to report. The table shows the 4-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
Substantial shortage of applicants .....	20	19	5	2
Some shortage of applicants .....	11	14	17	12
Shortage of applicants in some subject areas and excess in others	8	11	19	32
Sufficient applicants to fill positions .....	0	1	1	1
Some excess of applicants .....	0	0	0	2
Substantial excess of applicants .....	0	0	0	0
Valid appraisal not possible with present information .....	11	5	8	1

Responding to an inquiry about conditions having unusual influence toward decreasing the supply of teachers this year, 35 states reported that the supply of qualified teacher applicants is not smaller than last year. For the 4 states which reported a smaller supply, the conditions having increased influence toward a small number of qualified applicants were greater opportunities in business and industry in 4 states; location of vacancies not attractive in 3 states; fewer persons re-entering teaching in one state; and requirements of military service in one state.

The states were asked to identify the factors having increased influence if the demand for new

teachers is greater than last year. For the 13 states reporting increased demand the reasons include:

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

Twenty-nine of the 43 states responding to this question indicated that the demand for new teachers is not greater than was observed last year.

#### Shortages by Population Areas

Respondents in 41 states were able to report conditions by population areas in their state. All but three reported having a shortage of applicants in rural areas; 20 reported a shortage in small cities; 16, a shortage in central cities of large urban centers; and 7, a shortage in suburban areas. The numbers of states reporting conditions in these population areas as being more acute than observed last year were 3 states, in rural areas; one state, in small cities; 3 states, in central cities of large urban centers; and one state, in suburban areas.

The second survey queried personnel officers in each of the nation's 80 largest school systems about teacher supply and demand conditions in their systems as of the last week in July. Seventy-six systems reported a total of 4,013 unfilled positions. The unfilled positions represent 1.0 percent of the teachers in these systems in fall 1969. The number of unfilled positions reported by 76 of these systems in early August 1968 represented 1.6 percent of the teachers in the reporting systems in fall 1968.

#### Shortages by Teaching Assignment Area

According to state department of education personnel, many school systems are encountering extreme difficulty in filling teaching positions for 1969-70 in the following assignments (most frequently listed by 47 states reporting this information): elementary-school librarian, 21 states; special education, 20 states; industrial arts, 18 states; mathematics, 16 states; special assignments in remedial reading, speech correction, etc., 16 states; special assignments di-

rected to educationally disadvantaged children, 16 states; elementary-school guidance personnel, 13 states; women teachers of physical and health education, 12 states; natural and physical sciences, 10 states; and trade-industrial-vocational-technical subjects, 9 states. The most frequently listed assignment areas in which the 47 states expect school systems generally will have to employ persons with substandard qualifications are special education, 21 states; elementary-school librarians, 17 states; mathematics, 16 states; elementary-school teachers, 16 states; natural and physical sciences, 16 states; and secondary-school librarians, 14 states; special assignments in remedial reading, speech correction, etc., 12 states; guidance counselors, 12 states; and industrial arts, 10 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 school systems report having extreme difficulty in filling and the numbers of unfilled positions in late July are as follows:

<u>Assignment</u>	<u>Number of systems having EXTREME DIFFICULTY in filling position</u>	<u>Number of positions not filled</u>
Industrial arts .....	46	288
Special education .....	29	627
Mathematics .....	27	398
Trade, industrial, vocational .....	21	116
Natural and physical sciences .....	14	146
Physical education (women) .....	11	167
Instruction of educationally disadvantaged. ....	11	194
Remedial reading, speech, etc. ....	9	205
Librarians .....	8	123
Elementary, regular instruction .....	2	1,140

Supporting these reports of shortages are the relatively large numbers of these 76 large school systems which report they have had to employ persons with substandard qualifications in these assignment areas for 1969-70: 15, industrial arts; 22, special education; 21, mathematics; 9, trade-industrial-vocational-technical courses; 12, natural and physical sciences; 6, women teachers of physical and health education; and 12, 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 1968

The summary provided in Table 1 shows there are expected to be 109,394 prospective elementary-school teachers and 160,756 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 1969-70 session. Also, 7,702 prospective teachers of special education, 2,043 school librarians, and 4,331 guidance counselors are expected to be completing their professional preparation. (At least 3,323 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 informa-

tion is available, who actually enter active teaching status during the subsequent session have ranged from 78.0 to 83.2 percent for elementary- and 64.3 to 69.2 percent for high-school teachers during the past 10 years. Applying the midpoint of these ranges to the estimated number of graduates provides an estimate of about 88,172 elementary- and 107,385 high-school teachers who may be expected to enter the profession from this source in the fall of 1969.

#### Qualified Former Teachers

Some of the teachers who leave their positions may be expected to return to the profession. In addition to many persons 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 405,300 persons during the past eight years. However, the enlargement of employment opportunities in schools and in other

TABLE 1A. -- COLLEGE STUDENTS COMPLETING BACHELOR'S DEGREE, 1969 AND 1968, BY FIELD

LINE NO	TYPE OF PREPARATION	MEN	1969 WOMEN	TOTAL	MEN	1968 WOMEN	TOTAL	1968 TO 1969 NET CHANGE	PERCENT CHANGE
1	2	3	4	5	6	7	8	9	10
	ELEMENTARY-SCHOOL TOTAL .....	9,821	85,441	95,405	8,533	77,611	86,144	+ 9,261	+ 10.8
1	REGULAR INSTRUCTION .....	8,977	83,243	92,357	7,689	75,517	83,206	+ 9,151	+ 11.0
	SELECTED SUBJECTS(TOTAL) .....	844	2,198	3,048	844	2,094	2,938	+ 110	+ 3.7
2	ART .....	160	820	984	151	729	880	+ 104	+ 11.8
3	FOREIGN LANGUAGES .....	17	228	247	24	248	272	- 25	- 9.2
4	MUSIC .....	265	716	981	251	692	943	+ 38	+ 4.0
5	PHYSICAL & HEALTH EDUCATION ...	402	434	836	418	425	843	- 7	- .8
	SECONDARY SCHOOL								
6	AGRICULTURE .....	1,313	87	1,400	1,133	78	1,211	+ 189	+ 15.6
7	ART .....	1,629	4,202	5,831	1,353	3,388	4,741	+ 1,090	+ 23.0
8	BUSINESS EDUCATION .....	2,846	6,282	9,153	2,142	5,695	7,837	+ 1,316	+ 16.8
9	DISTRIBUTIVE EDUCATION .....	251	129	380	253	107	360	+ 20	+ 5.6
	ENGLISH LANGUAGE ARTS(TOTAL) ....	6,516	21,279	27,805	5,173	18,766	23,939	+ 3,866	+ 16.1
10	ENGLISH .....	5,221	18,404	23,635	4,208	16,394	20,602	+ 3,033	+ 14.7
11	JOURNALISM .....	88	196	284	56	130	186	+ 98	+ 52.7
12	SPEECH AND DRAMATIC ARTS .....	1,207	2,679	3,886	909	2,242	3,151	+ 735	+ 23.3
	FOREIGN LANGUAGES(TOTAL) .....	1,708	7,156	8,864	1,428	6,233	7,661	+ 1,203	+ 15.7
13	FRENCH .....	490	3,097	3,587	376	2,734	3,110	+ 477	+ 15.3
14	GERMAN .....	277	682	959	256	577	833	+ 126	+ 15.1
15	LATIN .....	113	263	376	115	276	391	- 15	- 3.8
16	RUSSIAN .....	45	84	129	26	85	111	+ 18	+ 16.2
17	SPANISH .....	738	2,846	3,584	617	2,409	3,026	+ 558	+ 18.4
18	OTHER .....	45	184	229	38	152	190	+ 39	+ 20.5
19	HOME ECONOMICS .....	13	6,911	6,924	5	6,277	6,282	+ 642	+ 10.2
20	INDUSTRIAL ARTS .....	4,436	39	4,475	3,730	18	3,748	+ 727	+ 19.4
21	JUNIOR HIGH SCHOOL(GENERAL) .....	344	412	760	320	336	656	+ 104	+ 15.9
22	MATHEMATICS .....	5,345	5,277	10,628	4,339	4,728	9,067	+ 1,561	+ 17.2
23	MUSIC .....	3,015	3,727	6,742	2,492	3,251	5,743	+ 999	+ 17.4
24	PHYSICAL & HEALTH EDUCATION .....	9,675	6,380	16,055	7,766	5,538	13,304	+ 2,751	+ 20.7
	NATURAL & PHYSICAL SCIENCES								
	(TOTAL) .....	6,351	3,902	10,259	5,267	3,332	8,599	+ 1,660	+ 19.3
25	SUBJECT NOT SPECIFIED .....	913	529	1,442	710	409	1,119	+ 323	+ 28.9
26	GENERAL SCIENCE .....	775	398	1,176	732	373	1,105	+ 71	+ 6.4
27	BIOLOGY .....	3,417	2,516	5,936	2,835	2,150	4,985	+ 951	+ 19.1
28	CHEMISTRY .....	859	401	1,260	660	341	1,001	+ 259	+ 25.9
29	PHYSICS .....	387	58	445	330	59	389	+ 56	+ 14.4
	SOCIAL STUDIES(TOTAL) .....	16,969	11,702	28,691	13,582	9,447	23,029	+ 5,662	+ 24.6
30	SUBJECT NOT SPECIFIED .....	7,576	4,932	12,520	6,602	4,336	10,938	+ 1,582	+ 14.5
31	HISTORY, GEOGRAPHY .....	6,987	4,868	11,863	5,209	3,845	9,054	+ 2,809	+ 31.0
32	ECONOMICS, SOCIOLOGY,								
	PSYCHOLOGY .....	1,265	1,220	2,485	807	763	1,570	+ 915	+ 58.3
33	OTHER SOCIAL STUDIES .....	1,141	682	1,823	964	503	1,467	+ 356	+ 24.3
34	TRADE, INDUSTRY, TECHNOLOGY .....	581	35	616	491	33	524	+ 92	+ 17.6
35	OTHER SECONDARY SUBJECTS .....	366	289	655	138	168	306	+ 349	+114.1
	SECONDARY-SCHOOL TOTAL .....	61,358	77,809	139,238	49,612	67,395	117,007	+22,231	+ 19.0
	UNGRADED								
36	SPECIAL EDUCATION .....	810	4,656	5,466	769	3,946	4,715	+ 751	+ 15.9
37	LIBRARIAN .....	100	917	1,017	100	778	878	+ 139	+ 15.8
38	GUIDANCE COUNSELOR .....	125	121	246	164	116	280	- 34	- 12.1
39	SCHOOL PSYCHOLOGIST .....	26	31	57	32	29	61	- 4	- 6.6
40	SCHOOL SOCIAL WORKER .....	8	47	55	8	58	66	- 11	- 16.7
41	SCHOOL NURSE .....	2	219	221	10	348	358	- 137	- 38.3
42	OTHER UNGRADED .....	225	653	929	182	694	876	+ 53	+ 6.1
	GRAND TOTAL .....	72,475	169,894	242,634	59,410	150,975	210,385	+32,249	+ 15.3

## Explanatory Comments on Tables 1A and 1B

1. Coverage. This 22nd 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 50 states and the District of Columbia, and almost complete coverage of two states. The figures given for 1968 are for the end of the year and reflect the total number graduating in 1968 who met certificate requirements. The figures given for 1969 are estimates of the numbers of persons expected to complete their preparation before September 1969. In the report issued for 1968 the total 1968 production was estimated to be 243,442. The total number of persons completing preparation in 1968 was reported in the present study to be 241,504, a decrease of 0.8 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. This report provides a summary of persons completing preparation at the bachelor's degree level and at the fifth-year or master's degree level. The information for the advanced degree classification is likely to be underreported because institutions may not have been 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.

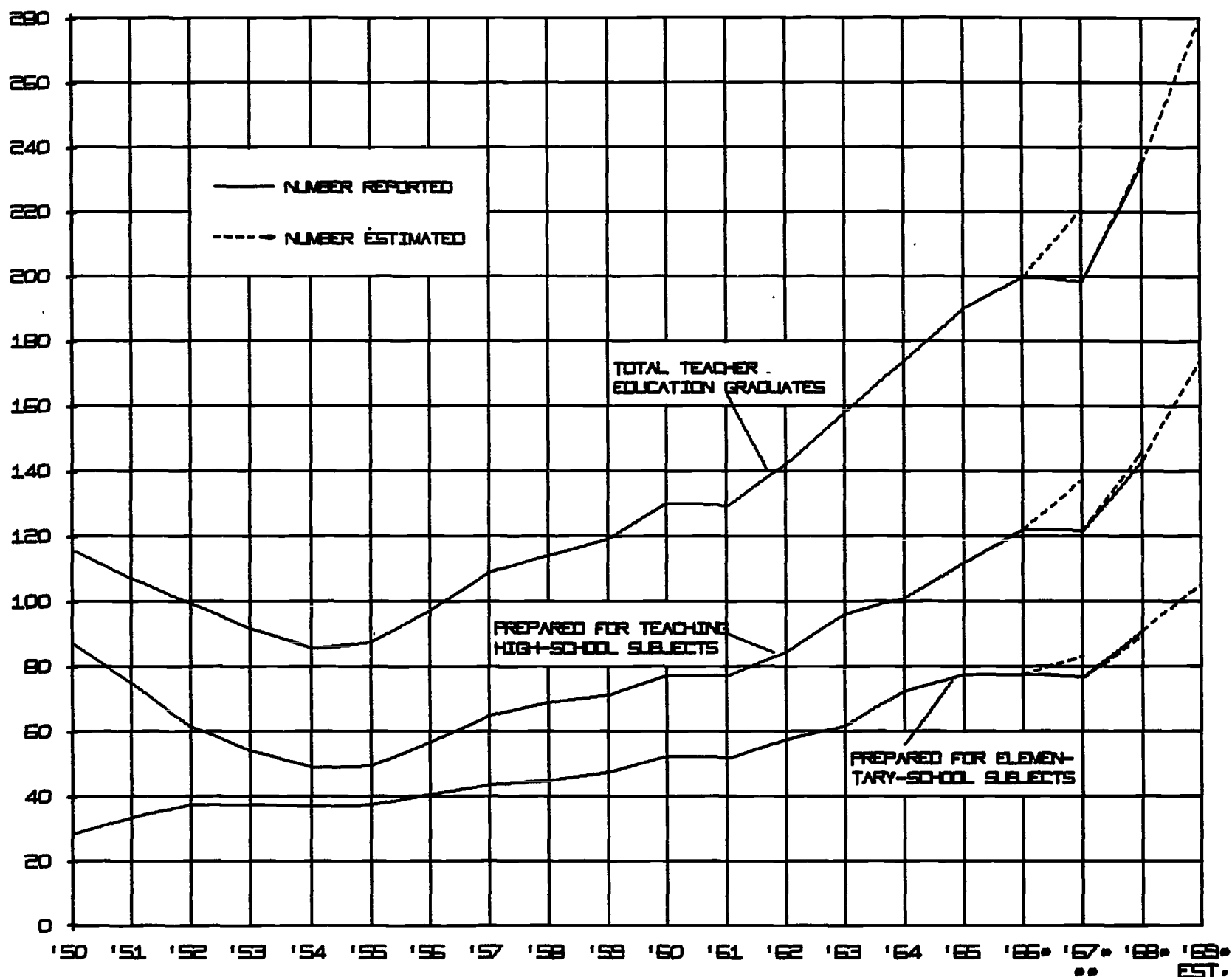
TABLE 1B. -- COLLEGE STUDENTS COMPLETING MASTER'S DEGREE AND TOTAL COMPLETING BACHELOR'S AND MASTER'S DEGREES, 1969 AND 1968, BY FIELD

LINE NO.	TYPE OF PREPARATION	MEN	1969 WOMEN	TOTAL	MEN	1968 WOMEN	TOTAL	1968 TO 1969 NET CHANGE	1968 TO 1969 PERCENT CHANGE	TOTAL, 1969	BACHELOR'S 1968	AND MASTER'S NET CHANGE	PERCENT CHANGE
1	2	3	4	5	6	7	8	9	10	11	12	13	14
<b>ELEMENTARY-SCHOOL</b>													
	TOTAL .....	2,605	11,384	13,989	1,374	7,159	8,533	+ 5,456	+ 63.9	109,394	94,677	+14,717	+ 15.5
1	REGULAR INSTRUCTION ..	2,385	10,809	13,194	1,287	6,843	8,130	+ 5,064	+ 62.3	105,551	91,336	+14,215	+ 15.6
<b>SELECTED SUBJECTS</b>													
	(TOTAL) .....	220	575	795	87	316	403	+ 392	+ 97.3	3,843	3,341	+ 502	+ 15.0
2	ART .....	38	119	157	20	139	159	- 2	- 1.3	1,141	1,039	+ 102	+ 9.8
3	FOREIGN LANGUAGES ..	2	52	54	4	39	43	+ 11	+ 25.6	301	315	- 14	- 4.4
4	MUSIC .....	58	70	128	20	47	67	+ 61	+ 91.0	1,109	1,010	+ 99	+ 9.8
5	PHYSICAL & HEALTH EDUCATION .....	122	334	456	43	91	134	+ 322	+240.3	1,292	977	+ 315	+ 32.2
<b>SECONDARY SCHOOL</b>													
6	AGRICULTURE .....	135	19	154	206	26	232	- 78	- 33.6	1,554	1,443	+ 111	+ 7.7
7	ART .....	388	780	1,168	258	464	722	+ 446	+ 61.8	6,999	5,463	+ 1,536	+ 28.1
8	BUSINESS EDUCATION ..	510	595	1,105	322	459	781	+ 324	+ 41.5	10,258	8,618	+ 1,640	+ 19.0
9	DISTRIBUTIVE EDUC. ..	33	22	55	28	11	39	+ 16	+ 41.0	435	399	+ 36	+ 9.0
<b>ENGLISH LANGUAGE ARTS</b>													
	(TOTAL) .....	1,402	3,046	4,448	776	1,933	2,709	+ 1,739	+ 64.2	32,253	26,648	+ 5,605	+ 21.0
10	ENGLISH .....	1,203	2,688	3,891	654	1,752	2,406	+ 1,485	+ 61.7	27,526	23,008	+ 4,518	+ 19.6
11	JOURNALISM .....	20	24	44	17	18	35	+ 9	+ 25.7	328	221	+ 107	+ 48.4
12	SPEECH & DRAMATIC ARTS .....	179	334	513	105	163	268	+ 245	+ 91.4	4,399	3,419	+ 980	+ 28.7
<b>FOREIGN LANGUAGES</b>													
	(TOTAL) .....	455	1,199	1,654	271	768	1,039	+ 615	+ 59.2	10,518	8,700	+ 1,818	+ 20.9
13	FRENCH .....	136	534	670	61	313	374	+ 296	+ 79.1	4,257	3,484	+ 773	+ 22.2
14	GERMAN .....	42	96	138	43	81	124	+ 14	+ 11.3	1,097	957	+ 140	+ 14.6
15	LATIN .....	21	43	64	23	24	47	+ 17	+ 36.2	440	438	+ 2	+ .5
16	RUSSIAN .....	9	10	19	9	13	22	- 3	- 13.6	148	133	+ 15	+ 11.3
17	SPANISH .....	215	456	671	113	302	415	+ 256	+ 61.7	4,255	3,441	+ 814	+ 23.7
18	OTHER .....	32	60	92	22	35	57	+ 35	+ 61.4	321	247	+ 74	+ 30.0
19	HOME ECONOMICS .....	18	652	670	13	459	472	+ 198	+ 41.9	7,594	6,754	+ 840	+ 12.4
20	INDUSTRIAL ARTS .....	632	98	730	570	7	577	+ 153	+ 26.5	5,205	4,325	+ 880	+ 20.3
21	JR. HIGH SCHOOL (GENERAL) .....	25	31	56	25	38	63	- 7	- 11.1	816	719	+ 97	+ 13.5
22	MATHEMATICS .....	802	723	1,525	599	424	1,023	+ 502	+ 49.1	12,153	10,090	+ 2,063	+ 20.4
23	MUSIC .....	372	370	742	324	258	582	+ 160	+ 27.5	7,484	6,325	+ 1,159	+ 18.3
24	PHYSICAL & HEALTH EDUCATION .....	1,092	706	1,798	910	493	1,403	+ 395	+ 28.2	17,853	14,707	+ 3,146	+ 21.4
<b>NATURAL &amp; PHYSICAL SCIENCES (TOTAL) ..</b>													
		1,274	936	2,210	961	566	1,527	+ 683	+ 44.7	12,469	10,126	+ 2,343	+ 23.1
25	SUBJECT NOT SPEC. ..	500	466	966	229	101	330	+ 636	+192.7	2,408	1,449	+ 959	+ 66.2
26	GENERAL SCIENCE ..	159	82	241	190	83	273	- 32	- 11.7	1,417	1,378	+ 39	+ 2.8
27	BIOLOGY .....	437	307	744	367	306	673	+ 71	+ 10.5	6,680	5,658	+ 1,022	+ 18.1
28	CHEMISTRY .....	119	74	193	115	64	179	+ 14	+ 7.8	1,453	1,180	+ 273	+ 23.1
29	PHYSICS .....	59	7	66	60	12	72	- 6	- 8.3	511	461	+ 50	+ 10.8
<b>SOCIAL STUDIES</b>													
	(TOTAL) .....	2,597	1,987	4,584	1,972	1,327	3,299	+ 1,285	+ 39.0	33,275	26,328	+ 6,947	+ 26.4
30	SUBJECT NOT SPEC. ..	1,268	1,038	2,306	904	549	1,453	+ 853	+ 58.7	14,826	12,391	+ 2,435	+ 19.7
31	HISTORY, GEOGRAPHY ..	1,011	723	1,734	825	619	1,444	+ 290	+ 20.1	13,597	10,498	+ 3,099	+ 29.5
32	ECONOMICS, SOCIOLOGY, PSYCHOLOGY ..	165	111	276	117	72	189	+ 87	+ 46.0	2,761	1,759	+ 1,002	+ 57.0
33	OTHER SOCIAL STUDIES .....	153	115	268	126	87	213	+ 55	+ 25.8	2,091	1,680	+ 411	+ 24.5
34	TRADE, INDUSTRY, TECHNOLOGY .....	54	6	60	145	21	166	- 106	- 63.9	676	690	- 14	- 2.0
35	OTHER SECONDARY SUBJ.	351	208	559	312	177	489	+ 70	+ 14.3	1,214	795	+ 419	+ 52.7
<b>SECONDARY-SCHOOL TOTAL .....</b>													
		10,140	11,378	21,518	7,692	7,431	15,123	+ 6,395	+ 42.3	160,756	132,130	+28,626	+ 21.7
<b>UNGRADED</b>													
36	SPECIAL EDUCATION ...	621	1,615	2,236	528	1,231	1,759	+ 477	+ 27.1	7,702	6,474	+ 1,228	+ 19.0
37	LIBRARIAN .....	206	820	1,026	185	603	788	+ 238	+ 30.2	2,043	1,666	+ 377	+ 22.6
38	GUIDANCE COUNSELOR ..	2,084	2,001	4,085	1,645	1,663	3,308	+ 777	+ 23.5	4,331	3,588	+ 743	+ 20.7
39	SCHOOL PSYCHOLOGIST ..	314	280	594	120	167	287	+ 307	+107.0	651	348	+ 303	+ 87.1
40	SCHOOL SOCIAL WORKER ..	46	71	117	12	29	41	+ 76	+185.4	172	107	+ 65	+ 60.7
41	SCHOOL NURSE .....	2	71	73	1	58	59	+ 14	+ 23.7	294	417	- 123	- 29.5
42	OTHER UNGRADED .....	751	526	1,277	717	504	1,221	+ 56	+ 4.6	2,206	2,097	+ 109	+ 5.2
<b>GRAND TOTAL .....</b>													
		16,769	28,146	44,915	12,274	18,845	31,119	+13,796	+ 44.3	287,549	241,504	+46,045	+ 19.1



**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

occupations may be reducing the number of persons in this pool to minimum levels 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 9 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 5,000 to 13,000 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, 1968, and August 31, 1969.

Table 1 shows that a record of at least 109,394 persons are expected to complete their preparation for employment as regular classroom teachers in elementary schools in fall 1969. The enlargement beyond 1968 levels by 14,717 persons is an increase of 15.5 percent. The 13,989 who will have the master's degree represent 12.8 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 1969 is an increase of 22,231, or 19.0 percent, and the number completing preparation with a master's degree is an increase of 6,395 persons, or 42.3 percent. The estimate of at least 160,756 persons completing preparation to teach secondary-school subjects is an increase of 21.7 percent over the number completing their preparation in 1968. The 21,518 having the master's degree represent 13.4 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 third 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 19.0 and 22.6 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. Growth is comparable among the number of persons prepared to enter the profession as guidance counselors; the 743 additional persons represent an increase of 20.7 percent over the number reported for 1968.

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. The increases of 303 in the number completing preparation to be school psychologists and 65 in the number completing preparation to be school social workers represent relatively large percentage increases. The apparent sharp percentage decrease in the number completing preparation to be school nurses is not a major change when the 294 expected to complete their preparation in 1969 is compared with the 283 similarly estimated one year ago for 1968.

### 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 high-school assignments. Using 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

TABLE 2.—COLLEGE GRADUATES PREPARED TO TEACH, BY FIELD, AND PERCENT CHANGE FROM 1950<sup>a/</sup>

Line no.	College graduates	1950	1952	1954	1956	1958	1960	1962	1964	1966	1968	1969 est.
	1	2	3	4	5	6	7	8	9	10	11	12
1	Total receiving bachelor's degree <sup>b/</sup> .....	432,058	329,986	290,825	308,812	362,554	392,440	417,846	498,654	551,040	685,000 <sup>c/</sup>	749,000 <sup>c/</sup>
2	Percent change from 1950 ..	...	-23.6%	-32.7%	-28.5%	-16.1%	-9.2%	-3.3%	+15.4%	+27.5%	+58.5%	+73.4%
3	TOTAL PREPARED TO TEACH IN ELEMENTARY SCHOOL, REGULAR INSTRUCTION .....	28,587	37,649	36,885	40,801	45,318	52,630	57,854	72,581	77,703	91,336	105,551
4	Change from 1950 .....	...	+31.7%	+29.0%	+42.7%	+58.5%	+84.1%	+102.4%	+153.9%	+171.8%	+219.5%	+269.2%
	Prepared to teach in high school or specific subjects:											
5	Agriculture .....	3,294	1,891	1,541	1,549	1,804	1,379	1,032	997	1,787	1,443	1,554
6	Change from 1950 .....	...	-42.6%	-53.2%	-53.0%	-45.2%	-58.1%	-68.7%	-69.7%	-45.7%	-56.2%	-52.8%
7	Art .....	2,225	2,249	1,856	2,072	2,233	2,719	3,031	4,031	4,998	6,502	8,140
8	Change from 1950 .....	...	+1.1%	-16.6%	-6.9%	+0.4%	+22.2%	+36.2%	+81.2%	+124.6%	+192.2%	+265.8%
9	Business education .....	7,235	5,165	4,076	5,494	6,166	7,106	6,752	7,207	7,261	8,618	10,258
10	Change from 1950 .....	...	-28.6%	-43.7%	-24.1%	-14.8%	-1.8%	-6.7%	-0.4%	-0.4%	+19.1%	+41.8%
11	English .....	10,709	8,211	5,278	5,945	7,706	9,295	11,886	16,021	18,410	23,008	27,526
12	Change from 1950 .....	...	-23.3%	-50.7%	-44.5%	-28.0%	-13.2%	+11.0%	+49.6%	+71.9%	+114.8%	+157.0%
13	Foreign languages .....	2,193	1,859	1,368	1,424	1,627	2,178	3,227	5,281	7,162	9,015	10,819
14	Change from 1950 .....	...	-15.2%	-37.6%	-35.1%	-25.8%	-0.7%	+47.2%	+140.8%	+226.5%	+311.1%	+393.3%
15	Home economics .....	4,899	4,648	4,212	4,522	4,575	4,812	4,788	5,281	5,690	6,754	7,594
16	Change from 1950 .....	...	-5.1%	-14.0%	-7.7%	-6.6%	-1.8%	-2.3%	+7.8%	+16.1%	+37.9%	+55.0%
17	Industrial arts .....	4,890	3,161	2,201	2,655	3,791	3,785	3,325	3,435	3,432	4,325	5,205
18	Change from 1950 .....	...	-35.4%	-55.0%	-45.7%	-22.5%	-22.6%	-22.0%	-29.8%	-29.8%	-11.5%	+6.4%
19	Mathematics .....	4,618	3,142	2,223	2,544	3,445	5,652	6,839	8,026	9,193	10,090	12,153
20	Change from 1950 .....	...	-32.0%	-51.9%	-44.9%	-25.4%	+22.4%	+48.1%	+73.8%	+99.1%	+118.5%	+163.2%
21	Music .....	5,296	4,882	4,323	4,798	5,189	5,200	5,302	5,978	6,311	7,335	8,593
22	Change from 1950 .....	...	-7.8%	-18.4%	-9.4%	-2.0%	-1.8%	+0.1%	+12.9%	+19.2%	+38.5%	+62.3%
23	Men's physical education ..	10,614	6,546	4,834	5,718	7,430	7,332	6,997	7,181	8,552 <sup>d/</sup>	9,137	11,291
24	Change from 1950 .....	...	-38.3%	-54.5%	-46.1%	-30.0%	-30.9%	-34.1%	-32.3%	-19.4%	-13.9%	+6.4%
25	Women's physical education	3,178	2,607	2,440	2,629	2,762	3,177	3,414	4,063	4,924 <sup>d/</sup>	6,547	7,854
26	Change from 1950 .....	...	-18.0%	-23.2%	-17.3%	-13.1%	<sup>e/</sup>	+7.4%	+27.8%	+54.9%	+106.0%	+147.1%
27	Natural and physical sciences	9,096	5,246	3,641	4,320	5,467	7,119	7,808	8,608	10,476	10,126	12,469
28	Change from 1950 .....	...	-40.3%	-60.0%	-52.5%	-39.9%	-21.7%	-14.2%	-5.4%	+15.2%	+11.3%	+37.1%
29	Social studies .....	15,349	9,406	7,227	9,125	11,672	13,197	14,724	18,583	22,381	26,328	33,275
30	Change from 1950 .....	...	-38.7%	-52.9%	-40.5%	-24.0%	-14.0%	-4.1%	+21.1%	+45.8%	+71.5%	+116.8%
31	Other fields <sup>f/</sup> .....	3,294	2,497	3,696	3,990	5,226	4,622	5,364	6,860	11,631 <sup>g/</sup>	14,383 <sup>g/</sup>	17,613 <sup>g/</sup>
32	Change from 1950 .....	...	-24.4%	+12.2%	+21.1%	+58.7%	+40.3%	+62.8%	+108.3%	+253.1%	+336.6%	+434.7%
33	TOTAL PREPARED TO TEACH HIGH-SCHOOL SUBJECTS .....	86,890	61,510	48,916	56,785	69,093	77,573	84,489	101,552	122,208	143,611	174,344
34	Change from 1950 .....	...	-29.2%	-43.7%	-34.6%	-20.5%	-10.7%	-2.8%	+16.9%	+40.6%	+65.3%	+100.6%
35	Prepared to enter selected positions .....	...	...	...	...	...	...	...	...	5,007	6,557	7,654
36	GRAND TOTAL PREPARED .....	115,477	99,159	85,801	97,586	114,411	130,203	142,343	174,133	204,918	241,504	287,549
37	Change from 1950 .....	...	-14.1%	-25.7%	-15.5%	-0.9%	+12.8%	+23.3%	+50.8%	+77.5%	+109.1%	+149.0%

<sup>a/</sup> Excludes students meeting certificate requirements at 90-, 60-, or 30-hour levels. <sup>b/</sup> 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. <sup>c/</sup> 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. <sup>d/</sup> Numbers of persons for whom sex was not reported are included proportionally. <sup>e/</sup> Minus less than 1/10 of 1 percent. <sup>f/</sup> 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. <sup>g/</sup> Not directly comparable with earlier years owing to changes in the data-collection instruments.

being graduated each year between 1962 and 1967, and more than three times as many in 1968 and 1969 than 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 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 1969 and 1968 listed separately by sex at each level. The number of men expected to complete teacher education programs has been increasing since 1954-55. 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 are 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

TABLE 3.--PERCENT OF TEACHER EDUCATION GRADUATES AND PERCENT OF ALL TEACHERS WHO ARE MEN, BIENNIALLY SINCE THE 1951-52 SESSION

Session	Percent who are men					
	Elementary		Secondary		Total	
	Teacher education graduates	All teachers <sup>a/</sup>	Teacher education graduates	All teachers <sup>a/</sup>	Teacher education graduates	All teachers <sup>a/</sup>
1	2	3	4	5	6	7
1951-52 .....	19.4%	12.5%	57.1%	45.9%	44.2%	24.4%
1953-54 .....	15.3	12.2	52.4	46.3	37.2	24.6
1955-56 .....	13.4	12.7	52.7	49.3	36.8	26.0
1957-58 .....	13.5	12.8	55.3	50.4	39.4	26.8
1959-60 .....	12.5	14.1	53.9	52.8	38.3	29.0
1961-62 .....	12.2	14.5	51.6	53.3	36.2	29.9
1963-64 .....	10.1	14.5	44.7	53.9	30.3	31.1
1965-66 .....	11.1 <sup>b/</sup>	15.2	46.0 <sup>c/</sup>	53.1	31.4 <sup>d/</sup>	31.8
1966-67 .....	11.2 <sup>b/</sup>	14.7	44.3 <sup>c/</sup>	53.5	30.4 <sup>d/</sup>	31.6
1967-68 .....	10.5 <sup>b/</sup>	14.6	43.4 <sup>c/</sup>	53.5	29.4 <sup>d/</sup>	31.7
1968-69 .....	11.4 <sup>b/</sup>	14.7	44.5 <sup>c/</sup>	53.5	30.7 <sup>d/</sup>	31.9

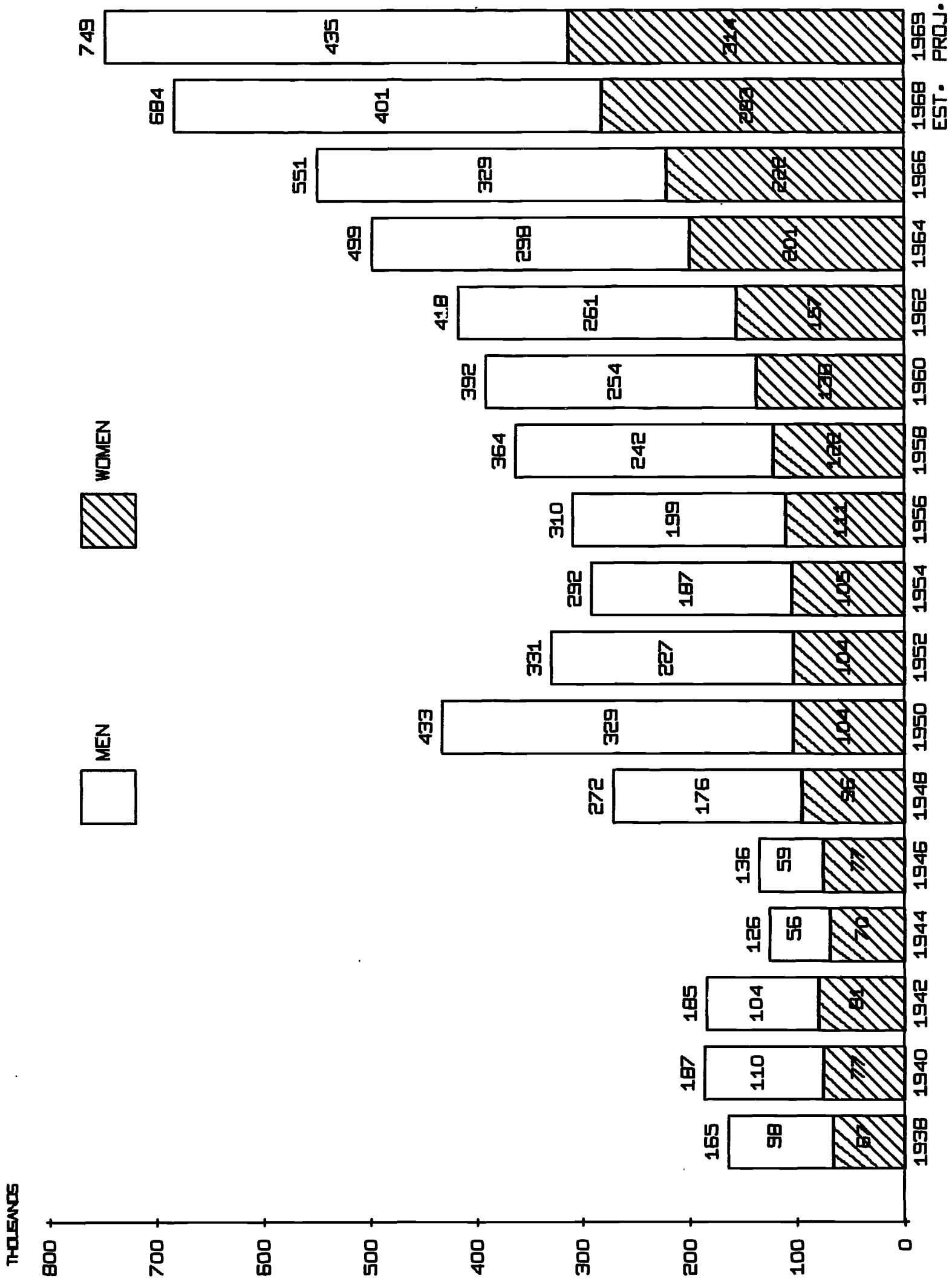
<sup>a/</sup> National Education Association, Research Division. Estimates of School Statistics, 1968-69. Research Report 1968-R16. Washington, D. C.: the Association, 1968. p. 14.

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

<sup>c/</sup> 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.

<sup>d/</sup> Includes persons prepared for special education assignments at either level.

**FIGURE II**  
**BACHELOR'S AND FIRST PROFESSIONAL DEGREES CONFERRED,**  
**1938 TO 1968 BIENNIALLY, AND 1969**



SOURCE -  
 U.S. OFFICE OF EDUCATION REPORTS AND PROJECTIONS OF EDUCATIONAL STATISTICS TO 1977-78 (1968 EDITION) • P. 34

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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 number estimated to be graduating in 1969 is 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 but the trend may have leveled since 1966. 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. 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.* .....	14.1	23.3	37.4

\*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 1969 range from a reduction of 83 in the District of Columbia to an increase of 10,946 in New York. (This estimate of a large increase should be interpreted only in general terms because the number reported to have completed preparation in 1968 is 72.2 percent of the number estimated for 1968 last year.)

The number of teacher education graduates by degree level was requested for the third time in the present study. Comparison among the states in the numbers completing preparation at 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 9 states. Increases of more than 500 bachelor's degree graduates are estimated in Illinois, Massachusetts, Michigan, New York, and Texas. With the exception of California, Massachusetts, 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 a decrease of 167 to an increase of 2,150. Increases of more than 500 are reported by Alabama, Florida, Illinois, Indiana, Iowa, Kentucky, Michigan, Minnesota, Mississippi, New York, North Carolina, Ohio, Pennsylvania, Tennessee, Texas, and Wisconsin. Changes in the number of prospective secondary-school teachers receiving the master's degree range from a decrease of 106 to an increase of 4,140 with the numbers ranging between plus or minus 100 in 36 of the 44 political subdivisions reporting.

Table 13 shows that 48.4 percent of the new teachers were assigned to elementary-school classrooms, as reported by 23 states and the District of Columbia for 1968-69. On the assumption that this distribution of new teachers is representative of the national pattern, six states--Alabama, Arkansas, Maine, Mississippi, New Mexico, North Dakota, Tennessee,



TABLE 4. -- COLLEGE STUDENTS RECEIVING DEGREES AND PREPARATION TO TEACH IN  
ELEMENTARY AND SECONDARY SCHOOLS, 1969 AND 1968, BY STATE

STATE 1	BACHELOR'S AND MASTER'S COMBINED			
	TOTAL, 1969 2	TOTAL, 1968 3	NET CHANGE 4	PERCENT CHANGE 5
ALABAMA .....	4,584	3,802	+ 782	+20.6
ALASKA .....	126	80	+ 46	+57.5
ARIZONA .....	3,069	2,858	+ 211	+ 7.4
ARKANSAS .....	3,525	2,843	+ 682	+24.0
CALIFORNIA .....	11,820	10,080	+ 1,740	+17.3
COLORADO .....	3,671	3,613	+ 58	+ 1.6
CONNECTICUT .....	3,552	3,175	+ 377	+11.9
DELAWARE .....	440	342	+ 98	+28.7
DISTRICT OF COLUMBIA .....	489	572	- 83	-14.5
FLORIDA .....	6,010	5,213	+ 797	+15.3
GEORGIA .....	4,542	3,796	+ 746	+19.7
HAWAII .....	707	701	+ 6	+ .9
IDAHO .....	1,143	940	+ 203	+21.6
ILLINOIS <sup>a/</sup> .....	15,662	12,310	+ 3,352	+27.2
INDIANA .....	7,388	6,000	+ 1,388	+23.1
IOWA .....	5,411	4,457	+ 954	+21.4
KANSAS .....	4,495	4,096	+ 399	+ 9.7
KENTUCKY .....	5,712	4,821	+ 891	+18.5
LOUISIANA .....	4,555	3,925	+ 630	+16.1
MAINE .....	1,254	1,118	+ 136	+12.2
MARYLAND .....	3,311	2,846	+ 465	+16.3
MASSACHUSETTS <sup>a/</sup> .....	7,959	6,674	+ 1,285	+19.3
MICHIGAN .....	13,571	11,696	+ 1,875	+16.0
MINNESOTA .....	6,593	5,794	+ 799	+13.8
MISSISSIPPI .....	4,690	3,500	+ 1,190	+34.0
MISSOURI .....	6,104	5,841	+ 263	+ 4.5
MONTANA .....	1,710	1,393	+ 317	+22.8
NEBRASKA .....	3,827	3,368	+ 459	+13.6
NEVADA .....	394	244	+ 150	+61.5
NEW HAMPSHIRE .....	1,026	858	+ 168	+19.6
NEW JERSEY .....	6,986	6,840	+ 146	+ 2.1
NEW MEXICO .....	1,337	1,332	+ 5	+ .4
NEW YORK <sup>a/</sup> .....	31,132	20,186	+10,946	+54.2
NORTH CAROLINA <sup>a/</sup> .....	6,370	5,404	+ 966	+17.9
NORTH DAKOTA .....	1,992	1,589	+ 403	+25.4
OHIO .....	13,375	11,784	+ 1,591	+13.5
OKLAHOMA .....	4,925	4,479	+ 446	+10.0
OREGON .....	3,393	3,094	+ 299	+ 9.7
PENNSYLVANIA .....	14,882	13,942	+ 940	+ 6.7
RHODE ISLAND .....	1,367	1,030	+ 337	+32.7
SOUTH CAROLINA .....	2,179	1,992	+ 187	+ 9.4
SOUTH DAKOTA .....	2,294	1,980	+ 314	+15.9
TENNESSEE .....	6,023	5,133	+ 890	+17.3
TEXAS .....	14,863	12,215	+ 2,648	+21.7
UTAH .....	2,962	2,544	+ 418	+16.4
VERMONT .....	618	558	+ 60	+10.8
VIRGINIA .....	3,956	3,372	+ 584	+17.3
WASHINGTON .....	4,220	4,051	+ 169	+ 4.2
WEST VIRGINIA .....	2,735	2,593	+ 142	+ 5.5
WISCONSIN .....	6,730	5,360	+ 1,370	+25.6
WYOMING .....	471	373	+ 98	+26.3
TOTAL .....	270,150	226,807	+43,343	+19.1

<sup>a/</sup> Number of 1968 graduates estimated in 1968 in Illinois was 6,694; in Massachusetts, 5,257; in New York, 27,961; and in North Carolina, 6,281.

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 en-

rollments, 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.

TABLE 5. -- COLLEGE STUDENTS RECEIVING DEGREES AND PREPARATION TO TEACH IN THE ELEMENTARY SCHOOL, 1969 AND 1968, BY STATE

STATE	BACHELOR'S DEGREE							MASTER'S DEGREE						
	GRADUATES OF		1969	TOTAL,	1968	1968	TO 1969	GRADUATES OF		1969	TOTAL,	1968	1968	TO 1969
	MEN	WOMEN	TOTAL	1968	NET	PERCENT	CHANGE	MEN	WOMEN	TOTAL	1968	NET	PERCENT	CHANGE
1	2	3	4	5	6	7		8	9	10	11	12	13	
ALABAMA .....	62	1,255	1,317	1,206	+	111	+ 9.2	12	126	138	140	-	2	- 1.4
ALASKA .....	11	39	50	27	+	23	+ 85.2	8	10	18	18	...	...	...
ARIZONA .....	161	916	1,077	936	+	141	+ 15.1	122	298	420	389	+	31	+ 8.0
ARKANSAS .....	77	914	991	839	+	152	+ 18.1	17	114	131	105	+	26	+ 24.8
CALIFORNIA .....	349	1,735	2,084	1,924	+	160	+ 8.3	391	2,686	3,077	2,684	+	393	+ 14.6
COLORADO .....	116	1,035	1,151	991	+	160	+ 16.1	39	198	237	136	+	101	+ 74.3
CONNECTICUT .....	216	1,152	1,368	1,138	+	230	+ 20.2	132	279	411	451	-	40	- 8.9
DELAWARE .....	22	164	186	158	+	28	+ 17.7	...	...	...	...	...	...	...
DISTRICT OF COLUMBIA .....	12	194	206	299	-	93	- 31.1	2	1	3	...	+	3	...
FLORIDA .....	214	2,165	2,379	2,178	+	241	+ 11.3	33	178	211	184	+	27	+ 14.7
GEORGIA .....	54	1,530	1,584	1,463	+	121	+ 8.3	28	151	179	77	+	102	+132.5
HAWAII .....	6	311	317	277	+	40	+ 14.4	1	125	126	162	-	36	- 22.2
IDAHO .....	75	322	397	378	+	19	+ 5.0	6	23	29	19	+	10	+ 52.6
ILLINOIS .....	586	5,139	5,725	4,682	+	1,043	+ 22.3	76	166	242	137	+	105	+ 76.6
INDIANA .....	278	2,427	2,705	2,238	+	467	+ 20.9	...	12	12	41	-	29	- 70.7
IOWA .....	119	1,938	2,057	1,714	+	343	+ 20.0	...	...	...	...	...	...	...
KANSAS .....	141	1,562	1,703	1,636	+	67	+ 4.1	3	43	46	87	-	41	- 47.1
KENTUCKY .....	241	1,792	2,033	1,907	+	126	+ 6.6	...	...	...	...	...	...	...
LOUISIANA .....	141	1,576	1,717	1,563	+	154	+ 9.9	18	122	140	112	+	28	+ 25.0
MAINE .....	75	342	417	376	+	41	+ 10.9	...	...	...	...	...	...	...
MARYLAND .....	119	1,204	1,323	1,211	+	112	+ 9.2	37	117	154	94	+	60	+ 63.8
MASSACHUSETTS ..	391	3,213	3,604	3,020	+	584	+ 19.3	142	346	488	223	+	265	+118.8
MICHIGAN .....	447	4,634	5,081	4,543	+	538	+ 11.8	104	151	255	298	-	43	- 14.4
MINNESOTA .....	392	2,136	2,528	2,314	+	214	+ 9.2	34	29	63	59	+	4	+ 6.8
MISSISSIPPI .....	76	1,347	1,423	1,148	+	275	+ 24.0	3	37	40	54	-	14	- 25.9
MISSOURI .....	202	2,062	2,264	2,117	+	147	+ 6.9	9	29	38	27	+	11	+ 40.7
MONTANA .....	58	551	609	571	+	38	+ 6.7	9	13	22	15	+	7	+ 46.7
NEBRASKA .....	207	1,344	1,551	1,377	+	174	+ 12.6	3	7	10	17	-	7	- 41.2
NEVADA .....	12	134	146	91	+	55	+ 60.4	8	21	29	10	+	19	+190.0
NEW HAMPSHIRE ..	34	386	420	349	+	71	+ 20.3	2	4	6	10	-	4	- 40.0
NEW JERSEY .....	289	2,420	2,709	2,765	-	56	- 2.0	176	200	376	206	+	170	+ 82.5
NEW MEXICO .....	37	335	372	366	+	6	+ 1.6	13	51	64	67	-	3	- 4.5
NEW YORK .....	1,029	8,026	9,055	8,444	+	611	+ 7.2	825	4,767	5,592	1,453	+	4,139	+284.9
NORTH CAROLINA ..	182	1,896	2,078	1,845	+	233	+ 12.6	33	165	198	257	-	59	- 23.0
NORTH DAKOTA ...	70	484	554	512	+	42	+ 8.2	...	...	...	...	...	...	...
OHIO .....	574	5,370	5,944	5,456	+	488	+ 8.9	9	30	39	39	...	...	...
OKLAHOMA .....	196	1,354	1,550	1,392	+	158	+ 11.4	58	198	256	263	-	7	- 2.7
OREGON .....	176	1,258	1,434	1,283	+	151	+ 11.8	7	50	57	58	-	1	- 1.7
PENNSYLVANIA ...	786	4,969	5,755	5,496	+	259	+ 4.7	39	92	131	115	+	16	+ 13.9
RHODE ISLAND ...	38	469	507	450	+	57	+ 12.7	11	46	57	37	+	20	+ 54.1
SOUTH CAROLINA ..	25	773	798	759	+	39	+ 5.1	...	...	...	...	...	...	...
SOUTH DAKOTA ...	74	705	779	697	+	82	+ 11.8	...	10	10	12	-	2	- 16.7
TENNESSEE .....	142	1,664	1,806	1,557	+	249	+ 16.0	...	10	10	6	+	4	+ 66.7
TEXAS .....	489	5,512	6,001	5,321	+	680	+ 12.8	127	307	434	281	+	153	+ 54.4
UTAH .....	104	991	1,095	1,028	+	67	+ 6.5	2	5	7	10	-	3	- 30.0
VERMONT .....	20	116	279	234	+	45	+ 19.2	...	...	...	2	-	2	-100.0
VIRGINIA .....	47	1,303	1,350	1,317	+	33	+ 2.5	25	58	83	53	+	30	+ 56.6
WASHINGTON .....	227	1,299	1,526	1,649	-	123	- 7.5	...	...	...	...	...	...	...
WEST VIRGINIA ..	94	702	796	747	+	49	+ 6.6	...	...	...	...	...	...	...
WISCONSIN .....	311	2,157	2,468	2,079	+	389	+ 18.7	40	107	147	123	+	24	+ 19.5
WYOMING .....	17	119	136	116	+	20	+ 17.2	1	2	3	2	+	1	+ 50.0
TOTAL .....	9,821	85,441	95,405	86,144	+	9,261	+ 10.8	2,605	11,384	13,989	8,533	+	5,456	+ 63.9

a/ Some institutions did not report bachelor's degree data by sex for 1969.

TABLE 6. -- COLLEGE STUDENTS RECEIVING DEGREES AND PREPARATION TO TEACH  
IN THE SECONDARY SCHOOL, 1969 AND 1968, BY STATE

STATE	BACHELOR'S DEGREE						MASTER'S DEGREE							
	GRADUATES OF 1969 MEN	GRADUATES OF 1969 WOMEN	GRADUATES OF 1969 TOTAL	TOTAL, 1968	1968 NET CHANGE	TO 1969 PERCENT CHANGE	GRADUATES OF 1969 MEN	GRADUATES OF 1969 WOMEN	GRADUATES OF 1969 TOTAL	TOTAL, 1968	1968 NET CHANGE	TO 1969 PERCENT CHANGE		
1	2	3	4	5	6	7	8	9	10	11	12	13		
ALABAMA .....	1,118	1,770	2,888	2,273	+	615	+ 27.1	125	116	241	183	+	58	+ 31.7
ALASKA .....	24	30	54	35	+	19	+ 54.3	1	3	4	...	+	4	...
ARIZONA .....	499	651	1,150	1,103	+	47	+ 4.3	254	168	422	430	-	8	- 1.9
ARKANSAS .....	891	1,234	2,125	1,726	+	399	+ 23.1	145	133	278	173	+	105	+ 60.7
CALIFORNIA .....	336	480	816	624	+	192	+ 30.8	2,632	3,211	5,843	4,848	+	995	+ 20.5
COLORADO .....	874	942	1,816	1,983	-	167	- 8.4	318	149	467	503	-	36	- 7.2
CONNECTICUT .....	564	800	1,364	1,147	+	217	+ 18.9	197	212	409	439	-	30	- 6.8
DELAWARE .....	67	187	254	184	+	70	+ 38.0	...	...	...	...	...	...	...
DISTRICT OF COLUMBIA .....	76	173	249	252	-	3	- 1.2	8	23	31	21	+	10	+ 47.6
FLORIDA .....	1,418	1,767	3,185	2,666	+	519	+ 19.5	118	117	235	225	+	10	+ 4.4
GEORGIA .....	823	1,683	2,506	2,068	+	438	+ 21.2	106	167	273	188	+	85	+ 45.2
HAWAII .....	72	117	189	158	+	31	+ 19.6	20	55	75	104	-	29	- 27.9
IDAHO .....	379	285	664	517	+	147	+ 28.4	32	21	53	26	+	27	+103.8
ILLINOIS .....	4,007	5,136	9,143	6,993	+	2,150	+ 30.7	310	242	552	498	+	54	+ 10.8
INDIANA .....	2,288	2,315	4,603	3,693	+	910	+ 24.6	34	34	68	28	+	40	+142.9
IOWA .....	1,618	1,736	3,354	2,743	+	611	+ 22.3	...	...	...	...	...	...	...
KANSAS .....	1,210	1,406	2,616	2,139	+	477	+ 22.3	82	48	130	234	-	104	- 44.4
KENTUCKY .....	1,819	1,860	3,679	2,914	+	765	+ 26.3	...	...	...	...	...	...	...
LOUISIANA .....	865	1,617	2,482	2,068	+	414	+ 20.0	102	114	216	182	+	34	+ 18.7
MAINE .....	467	370	837	742	+	95	+ 12.8	...	...	...	...	...	...	...
MARYLAND .....	657	962	1,619	1,371	+	248	+ 18.1	111	104	215	170	+	45	+ 26.5
MASSACHUSETTS ..	1,404	2,050	3,454	3,121	+	333	+ 10.7	181	232	413	310	+	103	+ 33.2
MICHIGAN .....	3,562	3,850	7,412	6,250	+	1,162	+ 18.6	521	302	823	605	+	218	+ 36.0
MINNESOTA .....	1,906	1,813	3,719	3,194	+	525	+ 16.4	202	81	283	227	+	56	+ 24.7
MISSISSIPPI .....	1,256	1,808	3,064	2,195	+	869	+ 39.6	83	80	163	103	+	60	+ 58.3
MISSOURI .....	1,711	1,995	3,706	3,639	+	67	+ 1.8	47	49	96	58	+	38	+ 65.5
MONTANA .....	633	446	1,079	807	+	272	+ 33.7	...	...	...	...	...	...	...
NEBRASKA .....	1,135	1,045	2,180	1,874	+	306	+ 16.3	64	22	86	100	-	14	- 14.0
NEVADA .....	95	106	201	135	+	66	+ 48.9	8	10	18	8	+	10	+125.0
NEW HAMPSHIRE ..	287	292	579	473	+	106	+ 22.4	7	14	21	26	-	5	- 19.2
NEW JERSEY .....	1,467	2,137	3,604	3,589	+	15	+ .4	181	116	297	280	+	17	+ 6.1
NEW MEXICO .....	402	392	794	812	-	18	- 2.2	52	55	107	87	+	20	+ 23.0
NEW YORK .....	4,147	5,490	9,637	7,581	+	2,056	+ 27.1	2,749	4,099	6,848	2,708	+	4,140	+152.9
NORTH CAROLINA ..	1,491	2,603	4,094	3,302	+	792	+ 24.0	...	...	...	...	...	...	...
NORTH DAKOTA ...	853	581	1,434	1,077	+	357	+ 33.1	3	1	4	...	+	4	...
OHIO .....	3,130	4,135	7,265	6,196	+	1,069	+ 17.3	76	51	127	93	+	34	+ 36.6
OKLAHOMA .....	1,325	1,486	2,811	2,410	+	401	+ 16.6	192	116	308	414	-	106	- 25.6
OREGON .....	754	1,029	1,783	1,592	+	191	+ 12.0	61	58	119	161	-	42	- 26.1
PENNSYLVANIA ...	4,265	4,493	8,758	8,099	+	659	+ 8.1	119	119	238	232	+	6	+ 2.6
RHODE ISLAND ...	357	412	769	484	+	285	+ 58.9	23	11	34	59	-	25	- 42.4
SOUTH CAROLINA ..	492	853	1,345	1,182	+	163	+ 13.8	16	20	36	51	-	15	- 29.4
SOUTH DAKOTA ...	836	636	1,472	1,248	+	224	+ 17.9	20	13	33	23	+	10	+ 43.5
TENNESSEE .....	1,623	2,366	3,989	3,427	+	562	+ 16.4	112	106	218	143	+	75	+ 52.4
TEXAS .....	2,583	4,747	7,330	5,976	+	1,354	+ 22.7	475	623	1,098	637	+	461	+ 72.4
UTAH .....	826	996	1,822	1,468	+	354	+ 24.1	30	8	38	38	-	...	...
VERMONT .....	121	137	258	203	+	55	+ 21.5	5	5	10	19	-	9	- 47.4
VIRGINIA .....	650	1,740	2,390	1,897	+	493	+ 26.0	62	71	133	105	+	28	+ 26.7
WASHINGTON .....	1,215	1,479	2,694	2,402	+	292	+ 12.2	...	...	...	...	...	...	...
WEST VIRGINIA ..	901	1,038	1,939	1,846	+	93	+ 5.0	...	...	...	...	...	...	...
WISCONSIN .....	1,703	1,989	3,692	2,797	+	895	+ 32.0	243	180	423	361	+	62	+ 17.2
WYOMING .....	156	144	300	232	+	68	+ 29.3	13	19	32	23	+	9	+ 39.1
TOTAL .....	61,358	77,809	139,238	117,007	+22,231	+ 19.0	10,140	11,378	21,518	15,123	+ 6,395	+ 42.3		

### Occupation of Teacher Education Graduates in 1968

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 44 states and the District of Columbia forwarded follow-up information to the NEA Research Division. Information is not available from Alaska, Kentucky, New Jersey, Ohio, Oklahoma, and Tennessee. Information for less than 85 percent of the teacher education graduates of 1967 is available for Arkansas (elementary), California (secondary), District of Columbia, Illinois (secondary), Indiana, Nevada,



New Hampshire (secondary), New Mexico, and Vermont (secondary). As a whole, follow-up information has been reported this year for 81.8 percent of the prospective elementary-school teachers and for 78.0 percent of the prospective secondary-school teachers who were graduated in 1968.

The occupational status of the teacher education graduates of 1968 is shown in Table 7. Information in column 11 shows that the status of 15.1 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 1968

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 1955:

Year	Percent of eligible graduates having follow-up information reported	Among eligible graduates in institutions reporting follow-up status			
		Percent who entered teaching in			Percent whose employment status is not known
		Ele-	Sec-	Total	
		mentary school	ondary school		
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	84.5	80.8	66.6	72.1*	12.7
1967	84.1	78.0	64.3	70.0*	15.5
1968	78.3	78.5	64.6	70.5*	14.8*

\*Includes special education 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, 4 persons in 5 prepared for elementary-school teaching and about 2 persons in 3 prepared for high-school teaching actually accepted teaching positions near the beginning of the school year which followed their graduation.

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 suggest that the most recent proportions may provide a conservative minimum estimate of the net or effective supply of beginning teachers available for employment in 1969-70.

#### Subject Differences

The percentages of prospective teachers who enter teaching immediately following graduation range from 41.3 percent in the trade, industrial, vocational, and technical grouping to 83.6 percent in the junior high-school subjects. The ranked percentages by subject field of the graduates who entered teaching by November 1, 1968, are as follows:

Field of preparation	Percent entering teaching
Junior high-school subjects .....	83.6%
Elementary school--regular instruction .....	78.9
<u>Elementary-school--total</u> .....	78.5
Music in elementary school .....	74.5
Women's physical and health education .....	74.2
Foreign language in elementary school .....	72.8
Mathematics .....	71.2
Industrial arts .....	70.9
Physical and health education in elementary school .....	69.4
Special education .....	69.0
Biology .....	67.7
Library science .....	67.5
Music .....	67.4
English .....	67.1
Art .....	66.5
Men's physical and health education .....	66.0
Distributive education .....	65.5
<u>Secondary school (all fields combined)</u> .....	64.6
Physics .....	64.5
Chemistry .....	64.3
Home economics .....	63.9
General natural and physical sciences .....	62.4
Foreign languages .....	62.3
Business education .....	61.4
Guidance counselors .....	60.5
Speech and drama .....	58.8
Social studies .....	58.0
Agriculture .....	56.8
Art in elementary school .....	54.1
Journalism .....	54.1
Trade, industrial, vocational, technical .....	41.3

TABLE 7.---OCCUPATION ON NOVEMBER 1, 1968, OF PERSONS WHO WERE GRADUATED BETWEEN SEPTEMBER 1, 1967,  
AND AUGUST 31, 1968, WITH QUALIFICATIONS FOR STANDARD TEACHING CERTIFICATES

FIELD OF PREPARATION	PERCENT TEACHING			OTHER- WISE GAIN- FULLY EMPLOYED	PERCENT NOT TEACHING			SEEK- ING TEACH- ING JOB			NO IN- FORMA- TION	TOTAL PER- CENT	NUMBER OF GRADU- ATES
	IN STATE	OUT OF STATE	TOTAL		CONTIN- UING FORMAL STUDY	MILI- TARY SER- VICE	HOME MAK- ING	SEEK- ING TEACH- ING JOB	10	11			
1	2	3	4	5	6	7	8	9	10	11	12	13	
ELEMENTARY-SCHOOL TOTAL . .													
MEN	59.7	15.8	75.5	3.5	3.8	3.6	.0	.8	.3	12.7	100.0	8,162	
WOMEN	63.6	15.3	78.9	1.6	2.5	.1	3.4	1.2	.1	12.1	100.0	69,305	
BOTH	63.2	15.3	78.5	1.8	2.7	.4	3.1	1.2	.2	12.1	100.0	77,467	
REGULAR INSTRUCTION . . .													
MEN	60.5	16.1	76.6	3.7	3.7	3.3	.0	.8	.3	11.7	100.0	7,413	
WOMEN	63.8	15.3	79.1	1.6	2.5	.1	3.4	1.2	.2	11.8	100.0	67,686	
BOTH	63.5	15.4	78.9	1.8	2.6	.4	3.1	1.2	.2	11.8	100.0	75,099	
ART . . . . .													
MEN	38.5	8.3	46.8	.6	6.4	4.5	.0	3.2	.0	38.5	100.0	156	
WOMEN	45.1	11.2	56.3	4.5	4.2	.0	1.7	1.5	.0	31.8	100.0	528	
BOTH	43.6	10.5	54.1	3.7	4.7	1.0	1.3	1.9	.0	33.3	100.0	684	
FOREIGN LANGUAGE . . . . .													
MEN	46.2	11.5	57.7	.0	3.8	3.8	.0	.0	.0	34.6	100.0	26	
WOMEN	57.6	17.6	75.2	1.2	1.8	.0	3.0	.0	.0	18.8	100.0	165	
BOTH	56.0	16.8	72.8	1.0	2.1	.5	2.6	.0	.0	20.9	100.0	191	
MUSIC . . . . .													
MEN	60.6	6.4	67.0	.5	6.4	8.7	.0	.0	.0	17.4	100.0	218	
WOMEN	63.7	13.5	77.3	1.7	4.2	.2	3.0	.5	.0	13.2	100.0	598	
BOTH	62.9	11.6	74.5	1.3	4.8	2.5	2.2	.4	.0	14.3	100.0	816	
PHY. AND HEALTH EDUC. . .													
MEN	53.9	18.1	71.9	2.9	3.4	2.9	.0	.3	.0	18.6	100.0	349	
WOMEN	51.8	14.9	66.8	1.2	4.0	.3	2.1	.3	.0	25.3	100.0	328	
BOTH	52.9	16.5	69.4	2.1	3.7	1.6	1.0	.3	.0	21.9	100.0	677	
SECONDARY SCHOOL													
AGRICULTURE . . . . .													
MEN	52.8	5.1	57.9	10.6	5.3	5.9	.0	.2	.0	20.1	100.0	1,118	
WOMEN	39.7	.0	39.7	19.1	13.2	8.8	.0	1.5	.0	17.6	100.0	68	
BOTH	52.0	4.8	56.8	11.1	5.7	6.1	.0	.3	.0	20.0	100.0	1,186	
ART . . . . .													
MEN	54.6	13.6	68.2	3.3	5.7	4.0	.0	1.6	.2	17.0	100.0	1,253	
WOMEN	52.1	13.6	65.7	3.9	4.0	.2	4.7	3.5	.8	17.2	100.0	2,921	
BOTH	52.9	13.6	66.5	3.7	4.5	1.4	3.3	2.9	.6	17.1	100.0	4,174	
BUSINESS EDUCATION . . .													
MEN	50.0	13.1	63.1	9.8	3.7	4.9	.0	.7	.5	17.3	100.0	2,060	
WOMEN	49.2	11.4	60.6	12.4	3.3	.2	5.1	2.0	.4	16.0	100.0	4,656	
BOTH	49.4	12.0	61.4	11.6	3.4	1.6	3.5	1.6	.4	16.4	100.0	6,716	
DISTRIBUTIVE EDUCATION .													
MEN	64.5	8.6	73.1	10.8	3.8	2.7	.0	.5	.0	9.1	100.0	186	
WOMEN	38.7	15.3	54.0	5.6	15.3	.0	6.5	3.2	.0	15.3	100.0	124	
BOTH	54.2	11.3	65.5	8.7	8.4	1.6	2.6	1.6	.0	11.6	100.0	310	
ENGLISH . . . . .													
MEN	51.8	14.2	66.0	3.3	6.8	4.4	.0	1.7	.3	17.5	100.0	3,931	
WOMEN	53.1	14.2	67.3	3.8	6.7	.1	3.9	2.5	.3	15.3	100.0	14,374	
BOTH	52.9	14.2	67.1	3.7	6.7	1.0	3.1	2.3	.3	15.7	100.0	18,305	
JOURNALISM . . . . .													
MEN	40.8	13.2	53.9	9.2	1.3	13.2	.0	1.3	.0	21.1	100.0	76	
WOMEN	45.1	9.0	54.1	9.0	3.0	.0	6.0	2.3	2.3	23.3	100.0	133	
BOTH	43.5	10.5	54.1	9.1	2.4	.0	3.8	1.9	1.4	22.5	100.0	209	
SPEECH AND DRAMATIC ARTS													
MEN	45.9	13.8	59.7	6.3	8.1	9.1	.0	1.4	.7	15.8	100.0	730	
WOMEN	44.7	13.7	58.4	4.5	10.4	.1	3.2	2.7	.3	20.4	100.0	1,790	
BOTH	45.0	13.8	58.8	5.0	9.7	2.4	2.3	2.3	.4	19.1	100.0	2,520	
FOREIGN LANGUAGE . . . . .													
MEN	49.1	13.7	62.8	3.2	8.6	4.7	.0	2.6	.2	17.9	100.0	1,422	
WOMEN	47.3	14.9	62.2	4.2	8.9	.1	4.0	3.8	.4	16.4	100.0	5,460	
BOTH	47.6	14.7	62.3	4.0	8.8	1.0	3.2	3.5	.4	16.7	100.0	6,882	
HOME ECONOMICS . . . . .													
MEN	66.7	.0	66.7	.0	5.6	16.7	.0	.0	.0	11.1	100.0	18	
WOMEN	50.0	13.9	63.9	8.7	4.9	.1	6.3	1.9	.5	13.3	100.0	5,337	
BOTH	50.1	13.8	63.9	8.6	4.9	.2	6.7	1.8	.5	13.3	100.0	5,355	
INDUSTRIAL ARTS . . . . .													
MEN	55.4	15.6	71.0	6.1	5.6	5.4	.0	.6	.3	11.1	100.0	3,271	
WOMEN	50.0	7.1	57.1	7.1	.0	.0	.0	7.1	.0	28.6	100.0	14	
BOTH	55.4	15.6	70.9	6.1	5.6	5.4	.0	.6	.3	11.1	100.0	3,285	
JUNIOR H. S. SUBJECTS . .													
MEN	71.1	8.6	79.7	3.8	2.0	7.1	.0	.2	.0	7.1	100.0	394	
WOMEN	78.0	9.7	87.7	2.1	3.1	.5	3.1	.3	.3	2.9	100.0	381	
BOTH	74.5	9.2	83.6	3.0	2.6	3.9	1.5	.3	.1	5.0	100.0	775	



1

	1	2	3	4	5	6	7	8	9	10	11	12	13
MATHEMATICS . . . . .	MEN	59.7	12.8	72.5	4.5	5.3	5.4	.0	.5	.1	11.6	100.0	4,022
	WOMEN	56.6	13.2	69.8	6.2	7.2	.0	3.1	1.0	.4	12.3	100.0	4,098
	BOTH	58.2	13.0	71.2	5.3	6.3	2.7	1.5	.8	.3	11.9	100.0	8,120
MUSIC . . . . .	MEN	52.6	15.2	67.8	3.1	8.0	6.2	.0	.7	.0	14.1	100.0	2,138
	WOMEN	50.6	16.4	67.0	3.7	7.8	.1	3.9	1.0	.0	16.4	100.0	2,605
	BOTH	51.5	15.9	67.4	3.5	7.9	2.8	2.2	.9	.0	15.3	100.0	4,743
PHYSICAL AND HEALTH EDUC.	MEN	48.7	17.3	66.0	4.4	5.9	6.2	.0	.7	.2	16.5	100.0	6,730
	WOMEN	54.1	20.1	74.2	2.4	3.8	.2	3.3	1.0	.2	14.8	100.0	4,552
	BOTH	50.9	18.4	69.3	3.6	5.0	3.8	1.3	.9	.2	15.8	100.0	11,282
NAT. AND PHYS. SCIENCES (NOT SPECIFIED) . . . . .	MEN	61.2	10.1	71.3	2.0	3.3	5.3	.0	.5	.0	17.6	100.0	547
	WOMEN	46.4	8.5	54.9	1.7	2.6	.0	1.3	.4	.0	39.1	100.0	235
	BOTH	56.8	9.6	66.4	1.9	3.1	3.7	.4	.5	.0	24.0	100.0	782
GENERAL NAT. AND PHYS. SCIENCES . . . . .	MEN	50.8	15.2	66.0	2.8	4.7	5.7	.0	1.0	.0	19.7	100.0	785
	WOMEN	45.2	10.4	55.6	6.7	7.7	.0	3.5	2.0	.2	24.4	100.0	405
	BOTH	48.9	13.5	62.4	4.1	5.7	3.8	1.2	1.3	.1	21.3	100.0	1,190
BIOLOGY . . . . .	MEN	58.8	12.5	71.3	4.0	6.4	4.6	.0	1.2	.2	12.4	100.0	2,518
	WOMEN	48.2	14.7	62.9	5.6	8.3	.1	4.1	1.8	.4	16.7	100.0	1,851
	BOTH	54.3	13.4	67.7	4.7	7.2	2.7	1.7	1.4	.3	14.2	100.0	4,369
CHEMISTRY . . . . .	MEN	53.3	11.8	65.1	6.2	8.5	5.7	.0	.6	.2	13.8	100.0	661
	WOMEN	50.8	11.9	62.7	6.1	10.6	.0	3.9	1.9	.6	14.1	100.0	311
	BOTH	52.5	11.8	64.2	6.2	9.2	3.9	1.2	1.0	.3	13.9	100.0	972
PHYSICS . . . . .	MEN	56.3	10.3	66.7	1.8	8.3	3.5	.0	1.2	.3	18.3	100.0	339
	WOMEN	46.9	6.3	53.1	9.4	14.1	1.6	.0	1.6	1.6	18.8	100.0	64
	BOTH	54.8	9.7	64.5	3.0	9.2	3.2	.0	1.2	.5	18.4	100.0	403
SOCIAL STUDIES . . . . .	MEN	48.0	12.1	60.1	5.3	7.7	6.5	.0	2.2	.3	17.8	100.0	12,009
	WOMEN	43.1	11.8	54.9	6.0	7.2	.2	4.1	3.9	.5	23.1	100.0	9,405
	BOTH	46.0	12.0	58.0	5.6	7.5	3.9	1.7	2.9	.4	20.0	100.0	20,414
TRADE, INDUST., VOC., TECH., . . . . .	MEN	37.1	5.7	42.8	15.0	3.8	4.4	.0	.4	.2	33.5	100.0	528
	WOMEN	19.6	5.9	25.5	.0	3.9	.0	2.0	.0	.0	68.6	100.0	51
	BOTH	35.6	5.7	41.3	13.6	3.8	4.0	.2	.3	.2	36.6	100.0	579
OTHER SEC. SCHOOL SUBJECTS . . . . .	MEN	58.4	8.2	66.7	2.0	3.9	3.1	.0	1.2	.0	23.1	100.0	255
	WOMEN	31.0	10.6	41.6	7.3	7.3	.0	6.9	1.5	.4	35.0	100.0	274
	BOTH	44.2	9.5	53.7	4.7	5.7	1.5	3.6	1.3	.2	29.3	100.0	529
SECONDARY TOTAL . . . . .	MEN	51.8	13.4	65.2	5.0	6.4	5.7	.0	1.3	.3	16.1	100.0	44,991
	WOMEN	50.1	14.0	64.1	5.5	6.4	.2	4.2	2.4	.4	16.7	100.0	58,109
	BOTH	50.9	13.7	64.6	5.3	6.4	2.6	2.4	1.9	.3	16.5	100.0	103,100
UNGRADED	MEN	48.8	13.9	62.8	3.4	6.1	1.1	.0	.6	.1	25.9	100.0	819
	WOMEN	56.5	14.0	70.4	1.6	5.6	.0	1.5	1.1	.1	19.7	100.0	3,554
	BOTH	55.1	14.0	69.0	1.9	5.7	.2	1.2	1.0	.1	20.9	100.0	4,473
LIBRARIAN . . . . .	MEN	47.0	11.3	58.3	3.9	2.6	2.2	.0	.9	.0	32.2	100.0	230
	WOMEN	58.6	10.7	69.3	3.1	3.0	.1	2.8	1.3	.2	20.2	100.0	1,209
	BOTH	56.8	10.8	67.5	3.3	2.9	.4	2.4	1.3	.1	22.1	100.0	1,439
GUIDANCE COUNSELOR . . . . .	MEN	50.1	9.4	59.5	6.5	2.0	.5	.0	.5	.0	31.0	100.0	1,109
	WOMEN	53.3	8.4	61.7	4.8	1.4	.0	1.4	.9	.0	29.7	100.0	979
	BOTH	51.6	8.9	60.5	5.7	1.7	.2	.7	.7	.0	30.4	100.0	2,088
SCHOOL PSYCHOLOGIST . . . . .	MEN	58.2	5.0	63.1	5.0	12.8	1.4	.0	.7	.7	16.3	100.0	141
	WOMEN	53.8	2.3	56.1	9.1	9.1	.0	1.5	5.3	.0	18.9	100.0	132
	BOTH	56.0	3.7	59.7	7.0	11.0	.7	.7	2.9	.4	17.6	100.0	273
SCHOOL SOCIAL WORKER . . . . .	MEN	46.2	.0	46.2	7.7	.0	.0	.0	.0	.0	46.2	100.0	13
	WOMEN	24.2	1.5	25.8	21.2	7.6	.0	.0	1.5	.0	43.9	100.0	66
	BOTH	27.8	1.3	29.1	19.0	6.3	.0	.0	1.3	.0	44.3	100.0	79
SCHOOL NURSE . . . . .	MEN	.0	.0	.0	90.0	.0	10.0	.0	.0	.0	.0	100.0	10
	WOMEN	25.9	1.5	27.4	16.3	2.6	.0	3.3	.0	.0	50.4	100.0	270
	BOTH	25.0	1.4	26.4	18.9	2.5	.4	3.2	.0	.0	48.6	100.0	280
OTHER UNGRADED . . . . .	MEN	57.8	6.2	64.0	4.4	7.6	2.9	.0	2.0	.0	19.0	100.0	1,061
	WOMEN	63.6	11.0	74.6	3.2	6.6	.3	1.8	.3	1.0	12.3	100.0	1,066
	BOTH	60.7	8.6	69.3	3.8	7.1	1.6	.9	1.1	.5	15.7	100.0	2,127
GRAND TOTAL . . . . .	MEN	53.0	13.5	66.5	4.8	6.0	5.1	.0	1.2	.2	16.2	100.0	56,536
	WOMEN	57.4	14.5	71.9	3.4	4.3	.1	3.7	1.7	.3	14.6	100.0	134,790
	BOTH	56.1	14.2	70.3	3.8	4.8	1.6	2.6	1.6	.3	15.1	100.0	191,326

TABLE 8.--PERCENTS OF TEACHER EDUCATION GRADUATES ENTERING CLASSROOMS  
IMMEDIATELY FOLLOWING GRADUATION, 1954-1968, BY SUBJECT AREAS

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

<sup>a/</sup> Includes persons prepared to teach the subject in elementary schools.

<sup>b/</sup> Includes persons prepared for ungraded assignments such as special education, library science, and guidance counseling.

The percentages of graduates entering teaching biennially since 1954 by major areas of preparation are reviewed in Table 8. The slight over-all 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 1968 graduates for whom follow-up information is not available range among the subject-area groupings from 5.0 percent of persons prepared for junior high-school subjects to 36.6 percent of persons prepared to teach the trade-vocational-technical-industrial courses.

A conservative estimate of the supply of beginning teachers who likely will be employed in classrooms in the fall of 1969 is provided in Table 9. In this table the estimated total number of teacher education graduates in 1969 in each subject is modified by the percent of graduates in that subject last year who actually entered classrooms by November 1, 1968.

#### State-by-State Differences

Listed in Table 10 are the percents of prospective teachers graduated in each state in 1968 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 78.5 percent of the class of 1968 entered teaching by November 1968, the proportions among the states who are known to have entered classroom teaching range from 42.3 percent in Hawaii to 90.3 percent in South Dakota. At the high-school level the percentages of prospective teachers known to have entered teaching immediately after graduation range from 43.6 percent in Florida to 79.4 percent in California.

In California, the occupational status is reported for fewer than 85 percent of all graduates.

### Prospective Teachers Leaving the State in Which They Were 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 2.4 percent in California to 42.6 percent in New Hampshire (excluding the District of Columbia). The percentages of prospective

high-school teachers accepting teaching positions outside the state in which they completed their preparation range from 1.8 in California to 39.5 in South Dakota (excluding District of Columbia).

### 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 (4.8 percent), entered military service (1.6 percent), entered full-time homemaking (2.6 percent), and were actively seeking a teaching position (1.6 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

TABLE 9.--ESTIMATE OF THE NUMBER OF 1969 TEACHER EDUCATION GRADUATES  
EXPECTED TO ENTER CLASSROOMS BY NOVEMBER 1, 1969)

LEVEL OR SUBJECT	NUMBER EXPECTED TO COMPLETE PREPARATION	PERCENT ENTERING TEACHING LAST YEAR	ESTIMATED NUMBER EXPECTED TO EN- TER CLASSROOM
1	2	3	4
ELEMENTARY SCHOOL (TOTAL) . . . . .	109,394	78.5	85,837
REGULAR INSTRUCTION . . . . .	105,551	78.9	83,279
ART . . . . .	1,141	54.1	617
FOREIGN LANGUAGE . . . . .	301	72.8	219
MUSIC . . . . .	1,109	74.5	826
PHYS. AND HEALTH EDUCATION . . . . .	1,292	69.4	896
SECONDARY SCHOOL (TOTAL) . . . . .	160,756	64.5	103,690
AGRICULTURE . . . . .	1,554	56.8	882
ART . . . . .	6,999	66.5	4,654
BUSINESS EDUCATION . . . . .	10,258	61.4	6,298
DISTRIBUTIVE EDUCATION . . . . .	435	65.5	284
ENGLISH . . . . .	27,526	67.1	18,469
JOURNALISM . . . . .	328	54.1	177
SPEECH AND DRAMATIC ARTS . . . . .	4,399	58.8	2,586
FOREIGN LANGUAGES (TOTAL) . . . . .	10,518	62.3	6,552
HOME ECONOMICS . . . . .	7,594	63.9	4,852
INDUSTRIAL ARTS . . . . .	5,205	70.9	3,690
JUNIOR HIGH SCHOOL SUBJECTS . . . . .	816	83.6	682
MATHEMATICS . . . . .	12,153	71.2	8,652
MUSIC . . . . .	7,484	67.4	5,044
PHYS. AND HEALTH EDUCATION . . . . .	17,853	69.3	12,372
NAT. AND PHY. SCIENCES (NOT SPECIFIED) . . . . .	2,408	66.4	1,598
GENERAL NAT. AND PHYS. SCIENCES . . . . .	1,417	62.4	884
BIOLOGY . . . . .	6,680	67.7	4,522
CHEMISTRY . . . . .	1,453	64.3	934
PHYSICS . . . . .	511	64.5	329
SOCIAL STUDIES (TOTAL) . . . . .	33,275	58.0	19,299
TRADE, INDUST., VOC., TECHNICAL . . . . .	676	41.3	279
OTHER SEC. SCHOOL SUBJECTS . . . . .	1,214	53.7	651
UNGRADED			
SPECIAL EDUCATION . . . . .	7,702	69.0	5,314
LIBRARIAN . . . . .	2,043	67.5	1,379
GUIDANCE COUNSELOR . . . . .	4,331	60.5	2,620
SCHOOL PSYCHOLOGIST . . . . .	651	59.7	388
SCHOOL SOCIAL WORKER . . . . .	172	29.1	50
SCHOOL NURSE . . . . .	294	26.4	77
OTHER UNGRADED . . . . .	2,206	69.3	1,528

TABLE 10.--LOCATION OF PERSONS WHO WERE GRADUATED BETWEEN SEPTEMBER 1, 1967  
AND AUGUST 31, 1968, WITH QUALIFICATIONS FOR STANDARD CERTIFICATES  
AND WHO ENTERED TEACHING, 44 STATES AND D. C. REPORTING

STATE	NUMBER	ELEMENTARY SCHOOL			NUMBER	SECONDARY SCHOOL		
		IN STATE	PERCENT TEACHING OUTSIDE STATE	TOTAL		IN STATE	PERCENT TEACHING OUTSIDE STATE	TOTAL
1	2	3	4	5	6	7	8	9
ALABAMA . . . . .	1,289	53.1	22.7	75.9	2,366	44.1	16.6	60.7
ARIZONA . . . . .	1,220	45.2	26.3	71.5	1,606	31.9	17.7	49.7
ARKANSAS . . . . .	664	55.6	17.2	72.7	1,665	46.3	18.7	65.0
CALIFORNIA . . . . .	4,384	78.9	2.4	81.3	4,104	77.6	1.8	79.4
COLORADO . . . . .	1,127	40.3	17.5	57.8	2,486	29.6	16.9	46.5
CONNECTICUT . . . . .	1,398	73.9	12.6	86.5	1,481	61.1	13.4	74.5
DELAWARE . . . . .	163	57.1	26.4	83.4	197	33.5	17.3	50.8
DISTRICT OF COLUMBIA . .	75	10.7	69.3	80.0	112	25.0	42.0	67.0
FLORIDA . . . . .	2,322	39.4	6.5	46.0	2,891	37.5	6.1	43.6
GEORGIA . . . . .	1,745	73.5	11.1	84.6	2,587	55.4	12.0	67.4
HAWAII . . . . .	404	30.0	12.4	42.3	233	38.6	7.7	46.4
IDAH0 . . . . .	399	46.1	30.6	76.7	538	40.1	24.7	64.9
ILLINOIS . . . . .	4,631	68.6	15.8	84.4	6,141	55.5	9.5	65.1
INDIANA . . . . .	1,621	59.0	26.2	85.2	2,732	45.1	18.6	63.8
IOWA . . . . .	1,867	53.5	31.9	85.3	2,716	44.8	25.0	69.8
KANSAS . . . . .	1,723	61.1	20.4	81.5	2,373	47.6	14.7	62.2
LOUISIANA . . . . .	1,672	67.2	7.7	74.9	2,187	51.1	6.9	57.9
MAINE . . . . .	376	63.6	21.3	84.8	737	53.2	16.1	69.3
MARYLAND . . . . .	1,269	70.9	9.9	80.9	1,455	54.8	10.1	64.9
MASSACHUSETTS . . . . .	3,099	51.3	17.4	68.7	3,063	40.2	12.3	52.5
MICHIGAN . . . . .	5,319	72.1	10.9	83.0	5,982	54.3	9.7	64.0
MINNESOTA . . . . .	2,381	66.7	18.5	85.1	3,427	55.0	17.8	72.8
MISSISSIPPI . . . . .	1,148	54.4	19.3	73.8	2,195	51.6	13.1	64.7
MISSOURI . . . . .	2,030	65.0	18.1	83.1	3,230	48.7	18.4	67.1
MONTANA . . . . .	571	45.2	20.5	65.7	807	43.7	19.6	63.3
NEBRASKA . . . . .	1,332	45.7	38.1	83.9	1,939	49.8	21.9	71.6
NEVADA . . . . .	59	39.0	20.3	59.3	97	27.8	18.6	46.4
NEW HAMPSHIRE . . . . .	237	40.9	42.6	83.5	266	36.8	31.6	68.4
NEW MEXICO . . . . .	232	58.2	20.7	78.9	427	50.6	20.1	70.7
NEW YORK . . . . .	8,673	68.2	7.1	75.2	8,847	55.7	4.9	60.6
NORTH CAROLINA . . . . .	1,845	54.9	21.9	76.8	3,304	46.2	18.6	64.8
NORTH DAKOTA . . . . .	513	48.1	33.3	81.5	1,069	42.2	29.0	71.2
OREGON . . . . .	1,341	55.6	15.5	71.1	1,753	44.8	12.5	57.3
PENNSYLVANIA . . . . .	5,611	66.2	19.1	85.2	8,331	53.7	17.1	70.8
RHODE ISLAND . . . . .	487	61.8	22.2	84.0	567	42.3	18.2	60.5
SOUTH CAROLINA . . . . .	656	54.1	21.0	75.2	1,172	47.3	14.2	61.5
SOUTH DAKOTA . . . . .	725	54.9	35.4	90.3	1,254	34.6	39.5	74.1
TEXAS . . . . .	5,290	70.8	7.2	78.0	5,887	58.6	7.5	66.1
UTAH . . . . .	1,038	53.9	23.5	77.4	1,506	39.6	22.5	62.1
VERMONT . . . . .	216	54.6	29.2	83.8	193	32.1	24.9	57.0
VIRGINIA . . . . .	1,243	69.1	11.9	81.0	1,824	55.4	10.9	66.3
WASHINGTON . . . . .	2,009	71.1	11.4	82.6	2,237	55.4	11.5	67.0
WEST VIRGINIA . . . . .	747	51.8	25.7	77.5	1,846	35.4	22.8	58.2
WISCONSIN . . . . .	2,198	64.7	20.2	84.8	3,015	60.5	15.4	75.8
WYOMING . . . . .	118	52.5	22.9	75.4	255	42.0	24.3	66.3

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 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 (1.6 percent) is slightly above the level reported for 1967 (0.9 percent). Highest proportions of teacher education graduates still seeking a teaching job in November were in foreign languages (3.5 percent), art (2.9 percent), social studies (2.9 percent), speech and drama (2.3 percent), and English (2.3 percent). Lowest proportions of graduates in a given subject area who were

seeking a teaching position were: elementary-school foreign languages (0.0 percent), elementary-school physical education, junior high-school subjects, trade-industrial-vocational subjects, and agriculture (0.3 percent), elementary-school music (0.4 percent), natural and physical sciences not specified (0.5 percent), industrial arts (0.6 percent), guidance counseling (0.7 percent), and mathematics (0.8 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 51 of this report.

Entry into other occupations is reported for slightly higher proportions of men than of women, 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.



## 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 types 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 1969 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 1968-69 (1,079,253 in elementary schools and 863,532 in secondary schools) provides an estimate that 34,500 former elementary-school teachers and 25,900 former secondary-school teachers will re-enter active employment as teachers in fall 1969 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 teacher demand related to a minimum standard, the second reviews the teacher demand related to current practices, including the adjustment of recent trends to account for the continued influence of the Elementary and Secondary Education Act of 1965.

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 with an adjustment to account for the growth in staff size expected to result from the continued influence of the Elementary and Secondary Education Act of 1965. This second estimate is termed the Adjusted Trend Criterion Estimate (ATCE).

The Trend Criterion Estimate of demand for new teachers reported in the 1966 edition of this series is not feasible this session because it is difficult to control accurately the influence of the Elementary and Secondary Education Act upon estimates of the last two years of staffing growth. The statistical estimate, if available, would be of limited usefulness for this report, and therefore is not continued in the present study.

The numbers of new teachers required by each criterion for estimating the demand for new



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 1969-70
	1957-58 <sup>a</sup> /	1959-60 <sup>a</sup> /	1964-65 <sup>b</sup> /	1965-66 <sup>c</sup> /	
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) <sup>d</sup> /	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 teach- er 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) <sup>d</sup> /	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 teach- er separations which will need to be filled by beginning teachers for the following year) .....	6.3	4.5	5.7	5.3	5.6

<sup>a</sup>/ 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.

<sup>b</sup>/ 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.

<sup>c</sup>/ 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.

<sup>d</sup>/ 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.)

teachers in 1969-70 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; (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 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 483,400 new teachers is an increase of 221,800 positions (11.4 percent) over the number of full-time teachers employed in the fall of 1968. The components of this estimate are described in the following paragraphs.

Increased Enrollment--The U.S. Office of Education has estimated that in fall 1969 the number of full-time and part-time elementary-school teachers in public schools will enlarge by 3,000; and secondary-school teachers, by 29,000. These estimates of staff enlargement include an expectation of the continued influence of the Elementary and Secondary Education Act of 1965. These estimated increases represent 0.3 percent of the number of full-time elementary-school teachers in fall 1968 (1,079,253), 3.4 percent of the number of full-time secondary-school teachers (863,532), and 1.6 percent of the total number of public-school teachers (1,942,785).

Preliminary estimates by the NEA Research Division reflect recent influences of federal programs upon staffing practices in addition to the trends of other factors influencing the staff requirements in public education. These projections suggest that the U.S. Office of Education figures may underestimate the growth in teaching staff in 1969-70. For this study the preliminary projected estimate of the number of teaching positions in 1969-70 comprises an increase of 20,000 in elementary schools and 34,000 in secondary schools with a total of 1,996,785 positions.

The estimated growth in the numbers of full-time public-school teachers (20,000 in elementary schools and 34,000 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.

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 1969 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 1969-70 is 34,500 in elementary and 25,900 in secondary schools. Applying these estimates to the number of full-time elementary- and full-time secondary-school teachers in 1968-69 provides the following estimates of demand for new and beginning teachers in fall 1969 to fill positions created by teacher turnover:

Level	Turnover-based demand in 1969-70 for	
	New teachers	Beginning teachers
Elementary school .....	87,400	52,900
Secondary school .....	74,300	48,400
Total .....	161,700	101,300

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 7.8 percent of all elementary-school teachers in 1968-69 lacked the bachelor's degree. Applying this percentage to the total number of full-time elementary-school teachers employed in 1968-69 provides an estimate that 84,182 elementary-school teachers lacked the bachelor's degree. The estimated demand for 67,300 elementary-school teachers allows for about 20 percent of the 84,182 elementary-school teachers lacking the bachelor's degree to have completed the degree requirements or to have resigned prior to the 1969-70 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 1968-69, shown in Table 24. The estimate of 1.1 percent applied to the 863,532 full-time secondary-school teachers employed in the fall of 1968 indicates that 9,499 secondary-school teachers did not have the bachelor's degree in 1968-69. The estimate that 7,600 of these need to be replaced is based on an assumption that 20 percent of the 9,499 teachers lacking the degree will have subsequently graduated or have resigned.

General support for these 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 1968 survey was 108,000 teachers: 62,100 in elementary schools and 45,900 in secondary schools. Owing to differences among the states in the minimum educational requirements for certification, some of which certify teachers with less than a bachelor's degree, 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 1968-69 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 1968 to obtain an estimate of the number of persons who may have been assigned extremely large classes during 1968-69.

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.

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

Source of demand	Estimated demand for new teachers		
	Elemen- tary	Second- ary	Total
1	2	3	4
Staff requirement of increased enroll- ment .....	20,000	34,000	54,000
Teacher turnover ...	87,400	74,300	161,700
Replacement of teachers having substandard quali- fications .....	67,300	7,600	74,900
Reduction of over- crowded classes ....	10,400	8,900	19,300
Special instruc- tional services ....	105,850	67,650	173,500
Total .....	290,950	192,450	483,400



Data on the staffing practices for classes having shortened sessions or 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 173,500 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 41,200 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 1,000 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 or nonexistent offerings in industrial arts, physical sciences, mathematics, vocational-technical subjects, and selected subjects in elementary schools as a result of the chronic short supply of qualified applicants.

At least 25,000 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 166,000 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 re-

quire it. This minimum estimate is only half of the number of new teachers (212,300) which would be needed this year to provide special education 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 .....	290,950	192,450	483,400
Expected re-entry of former teachers ..	34,500	25,900	60,400
Demand for beginning teachers .....	256,450	166,550	423,000

#### 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 1969-70 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 teacher demand--the minimum number of employment opportunities for beginning and re-entering teachers during the school year 1969-70.

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 elimi-



nated 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 terminating or interrupting their careers in the public schools during or at the close of the preceding 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 1969-70 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 1968-69 and 1969-70 the number of teachers will increase by 20,000 in elementary schools and by 34,000 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 87,400 new elementary-school teachers will be needed in 1969-70 to replace those who leave employment as teachers following 1968-69, and among these, 52,900 will need to be beginning teachers. At the secondary-school level it is estimated that 74,300 new teachers will be needed in 1969-70 to replace those who have left teaching, and 48,400 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 1969-70 is 107,400 in elementary schools and 108,300 in secondary schools. These estimates include the demand for 72,900 beginning teachers in elementary schools and 82,400 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 certification 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 10,000 new teachers will be needed in the nonpublic schools in the fall of 1969. From 1,500 to 2,000 new teachers will be needed in the dependent schools overseas. Replacement may be required for an increasing number of experienced teachers as a result of the heightened interest in providing them opportunities for advanced training.

Additional vacancies are certain as experienced teachers accept specialized positions being established through the impact of increased support to programs related to public education or which require persons having the characteristics of effective teachers. The provision of funds to employ remedial instruction specialists, school social workers, research analysts, program coordinators, state department of education staff members, and other positions outside the classroom will attract an unknown number of teachers. The effect of these programs upon the typical components of teacher supply and demand has not been documented.

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 many positions for new teachers in the elementary and secondary schools. It has been estimated that in the junior colleges alone, 100,000 more teachers will be needed within the 10 years between 1967 and 1977.

Probably the general shortage in other occupations which attract young people having at least the bachelor's degree and the increased demands of the military services are contributing also to an increase in the exodus of qualified teachers and the loss of potential teachers.

It is difficult to estimate the extent these conditions are changing the entry rate of potential teachers and the turnover rate of experienced teachers. It seems obvious, however, that the projected demand for teachers should be considered as a minimum estimate.

### 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 1969 as determined by the two criteria. An estimate of the demand for beginning teachers may be obtained by subtracting the 34,500 elementary- and 25,900 secondary-school teachers expected to re-enter the profession.

Base	Number of new teachers in demand for fall 1969		
	Elementary	Secondary	Total
Adjusted Trend Criterion Estimate .....	107,400	108,300	215,700
Quality Criterion Estimate .....	290,950	192,450	483,400

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 1968-69

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 <sup>a/</sup>	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 <sup>a/</sup>	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 <sup>a/</sup>	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 <sup>b/</sup>	64.2
1956-57 .....	62,099	59.9	29 + D. C., Hawaii, & Puerto Rico	1,199,000 <sup>b/</sup>	62.6
1957-58 .....	62,579	56.6	32 + Alaska & D. C.	1,259,000 <sup>b/</sup>	62.4
1958-59 .....	59,651	54.4	30 + Alaska, Hawaii, D. C., & Puerto Rico	1,306,000 <sup>b/</sup>	62.4
1959-60 .....	57,810	53.6	27 + D. C.	1,355,000 <sup>b/</sup>	61.4
1960-61 .....	59,115	55.7	26 + D. C.	1,408,000 <sup>b/</sup>	60.9
1961-62 .....	64,753	53.1	29 + D. C.	1,461,000 <sup>b/</sup>	59.5
1962-63 .....	53,192	53.5	24 + D. C.	1,508,000 <sup>b/</sup>	58.8
1963-64 .....	48,097	51.0	22 + D. C.	1,578,000 <sup>b/</sup>	57.5
1964-65 .....	58,948	53.0	27 + D. C.	1,648,000 <sup>b/</sup>	57.0
1965-66 .....	79,955	50.5	29	1,710,000 <sup>b/</sup>	56.4
1966-67 .....	88,370 <sup>d/</sup>	50.7 <sup>d/</sup>	24	1,789,000 <sup>b/</sup>	56.2
1967-68 .....	92,352 <sup>d/</sup>	48.7 <sup>d/</sup>	28 + D. C.	1,854,700 <sup>c/</sup>	56.1
1968-69 .....	75,063 <sup>d/</sup>	48.4 <sup>d/</sup>	23 + D. C.	1,909,900 <sup>c/e/</sup>	55.4

<sup>a/</sup> Estimated from U. S. Office of Education, Biennial Surveys of Education.

<sup>b/</sup> 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.

<sup>c/</sup> U. S. Department of Health, Education, and Welfare, Office of Education. Digest of Educational Statistics. 1968 edition. Washington, D. C.: Government Printing Office, 1968. p. 39.

<sup>d/</sup> Librarians are counted as secondary teachers, as in earlier studies.

<sup>e/</sup> Estimated.

**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 21 surveys of teacher supply and demand. (These included experienced teachers returning to the classroom as well as the beginning teachers.) For the present study 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 1968-69 is provided in Table 13.

The distribution of the new teachers among teaching assignments in 1968-69 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 1969-70 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.

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 1969-70.

**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 1968-69 who were given their complete or major assignment in either elementary- or high-school levels. The total demand for new elementary-school teachers was 1,667 fewer than the total demand for new high-school teachers in these 23 states. The new elementary-school teachers represented 48.9 percent of all new teachers. If librarians are included, as in earlier studies, the new elementary-school teachers represented 48.4 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

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

Major assignment	Percent of secondary-school teachers		
	Seven- teen states report- ing in 1967-68	Seven- teen states report- ing in 1968-69	Median of five sam- pling sur- veys
1	2	3	4
Agriculture .....	1.3%	1.9%	1.4%
Art .....	2.4	2.2	2.1
Business education ...	5.9	5.5	6.0
Distributive education	0.4	0.6	a/
English language arts.	18.4	18.3	21.5
Foreign languages ....	4.7	3.9	4.9
Home economics .....	4.3	4.6	4.5
Industrial arts .....	3.9	3.6	4.4
Junior high school ...	0.7	1.3	a/
Mathematics .....	12.0	11.7	14.1
Music .....	4.1	4.2	3.5
Physical and health education .....	8.3	7.6	6.9
Science .....	10.9	10.2	12.1
Social studies .....	13.1	12.3	14.8
Trade, industrial, vocational, tech- nical .....	2.2	1.8	1.7
Special education ....	2.5	3.6	0.9
Other .....	4.9	6.7	1.2
Total .....	100.0%	100.0%	100.0%

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

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 20 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 four 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 1969-70. Summarized in column 2 of Table 16 are the numbers of new teachers which will be employed in each assignment in 1969-70 if the percentage distribution of new teachers observed last session in 23 states and the District of Columbia is projected to the estimated total number of new teachers to be employed in 1969-70.

The basis for an alternate estimate of the 1968-69 demand for new teachers in each assignment is provided by additional information reported for the third 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 1968-69 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 17 states and the District of Columbia were able to supply the total numbers of teachers in each assignment area. To allow correction for the strong 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 four years. The distributions derived from the reports of the 17 states and the District of Columbia and the median of the percents observed in the four 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, special education, and other subjects) may reflect sampling error as well as differences from the national average in the staffing assignment pattern of the 17 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 5 of Table 15 are the averages of the percents of the staff in each major assignment who were new teachers in the 17 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 17 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.

The estimates shown in column 5 of Table 15 list the percents of total staff represented by new teachers observed when the total number of teachers increased by 3.7 percent in elementary schools and by 6.0 percent in secondary schools. The projected growth in total number of teachers between 1968-69 and 1969-70 is estimated to be 1.9 percent in elementary schools and 3.9 percent in secondary schools. Therefore, the change in rate of staff growth expected for 1969-70 was accounted for in the projected estimate of demand by changing the numbers of total staff in each assignment who were projected to be new teachers in 1969-70 by the



TABLE 15.--NUMBER AND PERCENT OF NEW TEACHERS, PERCENT OF STAFF WHO WERE NEW TEACHERS, AND PERCENT OF NEW TEACHERS WHO RE-ENTERED IN 1968-69, BY ASSIGNMENT

Assignment	Number of new teach- ers, 23 states and D. C.	Percent dis- tribution of new teachers		Average per- cent of staff who were new teachers, 17 states and D. C.	Average per- cent of new teachers who were re-en- tering, 20 states
		23 states and D. C.	17 states and D. C.		
1	2	3	4	5	6
Elementary (total)					
Regular instruction .....	32,863	90.5%	90.7%	10.2%	36.6%
Selected subjects					
Art .....	298 <sup>a</sup> / <sub>f</sub>	0.8 <sup>a</sup> / <sub>f</sub>	0.7 <sup>b</sup> / <sub>f</sub>	15.9 <sup>b</sup> / <sub>f</sub>	27.1 <sup>b</sup> / <sub>f</sub>
Foreign language .....	44 <sup>c</sup> / <sub>f</sub>	0.1 <sup>c</sup> / <sub>f</sub>	0.1 <sup>d</sup> / <sub>f</sub>	22.7 <sup>d</sup> / <sub>f</sub>	44.4 <sup>d</sup> / <sub>f</sub>
Music .....	693 <sup>e</sup> / <sub>f</sub>	1.9 <sup>e</sup> / <sub>f</sub>	1.6 <sup>f</sup> / <sub>f</sub>	10.8 <sup>f</sup> / <sub>f</sub>	37.5 <sup>g</sup> / <sub>f</sub>
Physical and health edu- cation .....	633 <sup>e</sup> / <sub>f</sub>	1.8 <sup>e</sup> / <sub>f</sub>	1.5 <sup>f</sup> / <sub>f</sub>	14.8 <sup>f</sup> / <sub>f</sub>	23.7 <sup>c</sup> / <sub>f</sub>
Special education .....	1,780 <sup>h</sup> / <sub>f</sub>	4.9 <sup>h</sup> / <sub>f</sub>	5.4 <sup>a</sup> / <sub>f</sub>	11.0 <sup>a</sup> / <sub>f</sub>	38.1 <sup>e</sup> / <sub>f</sub>
Total, classroom instruction .	36,311	100.0	100.0	10.3	...
Librarian .....	302 <sup>e</sup> / <sub>f</sub>	...	...	6.5 <sup>g</sup> / <sub>f</sub>	41.1 <sup>g</sup> / <sub>f</sub>
Guidance counselor .....	68 <sup>i</sup> / <sub>f</sub>	...	...	8.0 <sup>b</sup> / <sub>f</sub>	58.6 <sup>b</sup> / <sub>f</sub>
Secondary (total)					
Agriculture .....	424 <sup>h</sup> / <sub>f</sub>	1.1 <sup>h</sup> / <sub>f</sub>	1.5 <sup>i</sup> / <sub>f</sub>	6.9 <sup>i</sup> / <sub>f</sub>	35.8 <sup>f</sup> / <sub>f</sub>
Art .....	1,153	3.0	3.0	16.9	21.7
Business education .....	1,996	5.3	5.3	12.1	25.3
Distributive education .....	172 <sup>e</sup> / <sub>f</sub>	0.5 <sup>e</sup> / <sub>f</sub>	0.4 <sup>f</sup> / <sub>f</sub>	8.0 <sup>f</sup> / <sub>f</sub>	24.0 <sup>c</sup> / <sub>f</sub>
English language arts .....	7,801	20.5	21.0	14.3	25.9
Foreign language (total) .....	1,858	4.9	4.6	14.7	21.1
Home economics .....	1,743	4.6	4.6	12.4	31.9 <sup>e</sup> / <sub>f</sub>
Industrial arts .....	1,135	3.0	3.2	11.1	22.1 <sup>e</sup> / <sub>f</sub>
Junior high school .....	661 <sup>f</sup> / <sub>f</sub>	1.7 <sup>f</sup> / <sub>f</sub>	1.1 <sup>j</sup> / <sub>f</sub>	10.6 <sup>j</sup> / <sub>f</sub>	21.7 <sup>b</sup> / <sub>f</sub>
Mathematics .....	4,271	11.2	11.5	12.2	23.7
Music .....	1,463	3.9	3.5 <sup>a</sup> / <sub>f</sub>	10.5 <sup>a</sup> / <sub>f</sub>	24.9 <sup>e</sup> / <sub>f</sub>
Physical and health education:					
Total .....	3,120	8.2	7.3	12.0	20.5 <sup>e</sup> / <sub>f</sub>
Men .....	1,492 <sup>c</sup> / <sub>f</sub>	3.9 <sup>c</sup> / <sub>f</sub>	<sup>k</sup> / <sub>f</sub>	11.1 <sup>l</sup> / <sub>f</sub>	16.3 <sup>f</sup> / <sub>f</sub>
Women .....	1,648 <sup>c</sup> / <sub>f</sub>	4.3 <sup>c</sup> / <sub>f</sub>	<sup>k</sup> / <sub>f</sub>	19.5 <sup>l</sup> / <sub>f</sub>	22.2 <sup>f</sup> / <sub>f</sub>
Natural and physical sciences (total) .....	3,930	10.3	10.4	12.8	23.4
Social studies (total) .....	5,044	13.3	12.6	12.8	18.6
Trade, industrial, vocational, technical .....	667	1.8	1.7	12.4	20.3 <sup>a</sup> / <sub>f</sub>
Special education .....	998	2.6	2.8 <sup>a</sup> / <sub>f</sub>	9.6 <sup>a</sup> / <sub>f</sub>	36.4 <sup>e</sup> / <sub>f</sub>
Other secondary subjects .....	1,542 <sup>h</sup> / <sub>f</sub>	4.1 <sup>h</sup> / <sub>f</sub>	5.5 <sup>g</sup> / <sub>f</sub>	10.5 <sup>g</sup> / <sub>f</sub>	34.6 <sup>i</sup> / <sub>f</sub>
Total, classroom instruction .	74,289	100.0	100.0	12.4	...
Librarian .....	472 <sup>h</sup> / <sub>f</sub>	...	...	5.5 <sup>a</sup> / <sub>f</sub>	41.4 <sup>e</sup> / <sub>f</sub>
Guidance counselor .....	378 <sup>h</sup> / <sub>f</sub>	...	...	3.9 <sup>a</sup> / <sub>f</sub>	58.3 <sup>e</sup> / <sub>f</sub>

<sup>a</sup>/ Information reported by 17 states.

<sup>b</sup>/ Information reported by 12 states.

<sup>c</sup>/ Information reported by 14 states.

<sup>d</sup>/ Information reported by 9 states.

<sup>e</sup>/ Information reported by 19 states.

<sup>f</sup>/ Information reported by 13 states.

<sup>g</sup>/ Information reported by 15 states.

<sup>h</sup>/ Information reported by 22 states.

<sup>i</sup>/ Information reported by 16 states.

<sup>j</sup>/ Information reported by 7 states.

<sup>k</sup>/ Information reported by 8 states.

<sup>l</sup>/ Projected.

difference in the percent of staff growth expected overall.

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 estimated percent of staff expected to be new teachers in 1969-70 was applied to the estimated total number of teachers in each assignment in 1969-70 and the resulting estimate of the demand for new teachers is listed in column 3 of Table 16. In this estimate, the total demand for new teachers is less 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 1969-70.

#### 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 1969-70 in elementary- and secondary-school assignments is estimated to be 3.2 percent of all elementary-school teachers and

TABLE 16.--SUMMARY OF TWO ADJUSTED TREND CRITERION ESTIMATES  
OF THE DEMAND FOR NEW TEACHERS IN 1969-70

Assignment	Projected total 1969-70 demand distributed as reported by 23 states and D. C. in 1968-69	Projection of total demand based on the relation of new staff to total staff in assignment in 1968-69
		Using estimated total staff distribution from national sampling studies
1	2	3
Elementary (total) .....	(107,400)	(94,157)
Regular instruction .....	97,201	89,677
Selected subjects		
Art .....	882	145
Foreign language .....	130	623
Music .....	2,050	987
Physical and health education	1,872	1,217
Special education .....	5,265	1,508
Secondary (total) .....	(108,300)	(102,345)
Agriculture .....	1,209	760
Art .....	3,288	2,792
Business education .....	5,692	5,712
Distributive education .....	491	...
English language arts .....	22,246	24,191
Foreign languages .....	5,298	5,667
Home economics .....	4,971	4,391
Industrial arts .....	3,237	3,843
Junior high school .....	1,884	...
Mathematics .....	12,179	13,535
Music .....	4,172	2,891
Physical and health education:		
Men .....	4,255 <sup>a/</sup>	3,231
Women .....	4,643 <sup>a/</sup>	4,910
Natural and physical sciences ..	11,207	12,186
Social sciences .....	14,383	14,906
Trade, industrial, vocational ..	1,902	1,659
Special education .....	2,846	680
Other subjects .....	4,397	991

<sup>a/</sup> Projected from information reported by 8 states.

3.0 percent of all secondary-school teachers in 1968-69; 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 20 states reporting both the number of new teachers and the number of re-entering teachers in 1968-69 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 6 of Table 15) to the estimated demand for new teachers (listed in Table 16, column 4).

#### 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 1968-69. This provides an estimated need for 44,357 full-time librarians in elementary schools and 31,987 full-time librarians in secondary schools in fall 1969. Subtraction of the estimated number of librarians employed in 1968-69 (11,991 in elementary schools and 23,664 in secondary schools) provides an estimated demand in 1969 for 32,366 new librarians in elementary schools and 8,323 new librarians in secondary schools, in addition to the numbers needed to replace those normally expected to leave their positions between 1968-69 and 1969-70.

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 13,750 guidance counselors in elementary schools in fall 1969. Subtraction of the estimated 2,595 persons in this assign-

ment in 1968-69 provides an estimated demand in 1969 for 11,155 new elementary-school guidance counselors, in addition to the number needed to replace those who normally will terminate their employment in this position between 1968-69 and 1969-70.

Similarly, at the secondary level it is estimated that 44,500 guidance counselors would be needed in fall 1969 to provide one counselor per 400 students enrolled. A lower ratio of one counselor per 300 students is considered desirable for providing high-quality guidance services in secondary schools. Subtraction of the estimated 28,670 counselors estimated as being employed in secondary schools in 1968-69 provides an estimated demand for 15,830 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 1969.

In summary, the following shows the numbers of new staff members which will be needed, in 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 1969.

Level of assignment	Number of new persons needed in 1969 to move toward high quality in provision of staff (in addition to those needed to replace persons leaving)	
	School librarians	Guidance counselors
Elementary schools.	32,366	11,155
Secondary schools .	8,323	15,830
Total .....	40,689	26,985

#### 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 1969-70. 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.

TABLE 17.--INFORMATION USED TO PROJECT AN ADJUSTED TREND CRITERION ESTIMATE OF THE DEMAND FOR NEW SCHOOL LIBRARIANS AND GUIDANCE COUNSELORS, 1969-70

Type of information	School librarians			Guidance counselors		
	Elementary	Secondary	Total	Elementary	Secondary	Total
1	2	3	4	5	6	7
<u>Information from 17 states, 1968-69</u>						
Number of staff .....	2,615	5,494	8,109	566	6,656	7,222
Number of new staff .....	170	302	472	45	262	307
Percent of staff who are new	6.5%	5.5%	5.8%	8.0%	3.9%	4.3%
<u>Projected national estimate, 1968-69a/</u>						
Number of staff .....	11,991	23,664	35,655	2,595	28,670	31,265
Number of new staff .....	780	1,301	2,081	208	1,118	1,326
<u>Projected national estimate, 1969-70</u>						
Number of staff <sup>b/</sup> .....	12,213	24,587	36,800	2,643	29,788	32,431
Number of new staff <sup>c/</sup> (demand).	660	1,185	1,845	175	1,018	1,193
<u>Information from 19 states, 1968-69</u>						
Average of percents of new staff who were re-entering following an interruption of at least one year .....	41.1%	41.4%	...	58.6%	58.3%	...
<u>Projected national estimate, 1969-70</u>						
Number of beginning staff (demand) .....	271	491	762	103	593	696

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 1968-69 were 21.8 percent of elementary-school teachers and 23.2 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 1968-69 will be changed in 1969-70 by the same percentage as projected in the growth in the number of classroom teachers.

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 based on information reported by the 17 states (Table 17) provides an estimate of 35,655 school librarians and 31,265 guidance counselors employed in public schools in 1968-69. The projected size of staff in 1968-69 summarized in Table 17 is almost one-fifth larger than the numbers of school librarians reported by the school districts and is almost as large (96.6 percent) as the numbers of guidance counselors reported.

The estimated growth in the number of persons in these positions between 1968-69 and 1969-70 is based on the same rate of growth as is projected among classroom teachers. The current efforts by local school districts to improve the staff adequacy in these classifications may make this a conservative estimate of growth in staff size in 1969-70.

The average of the percents of new staff who were re-entering the profession among the 19 reporting states is relatively high; on the average about two in five of the new school librarians and almost three in five of the new



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 new and re-entering staff needed in 1969-70 are both listed.

In summary, it seems likely that there will be actual demand in fall 1969 for at least 1,845 new librarians, of which 762 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 1969 for 1,193 new guidance counselors, of which 696 may need to be entering the profession for the first time.

## SUPPLY COMPARED WITH DEMAND FOR NEW TEACHERS

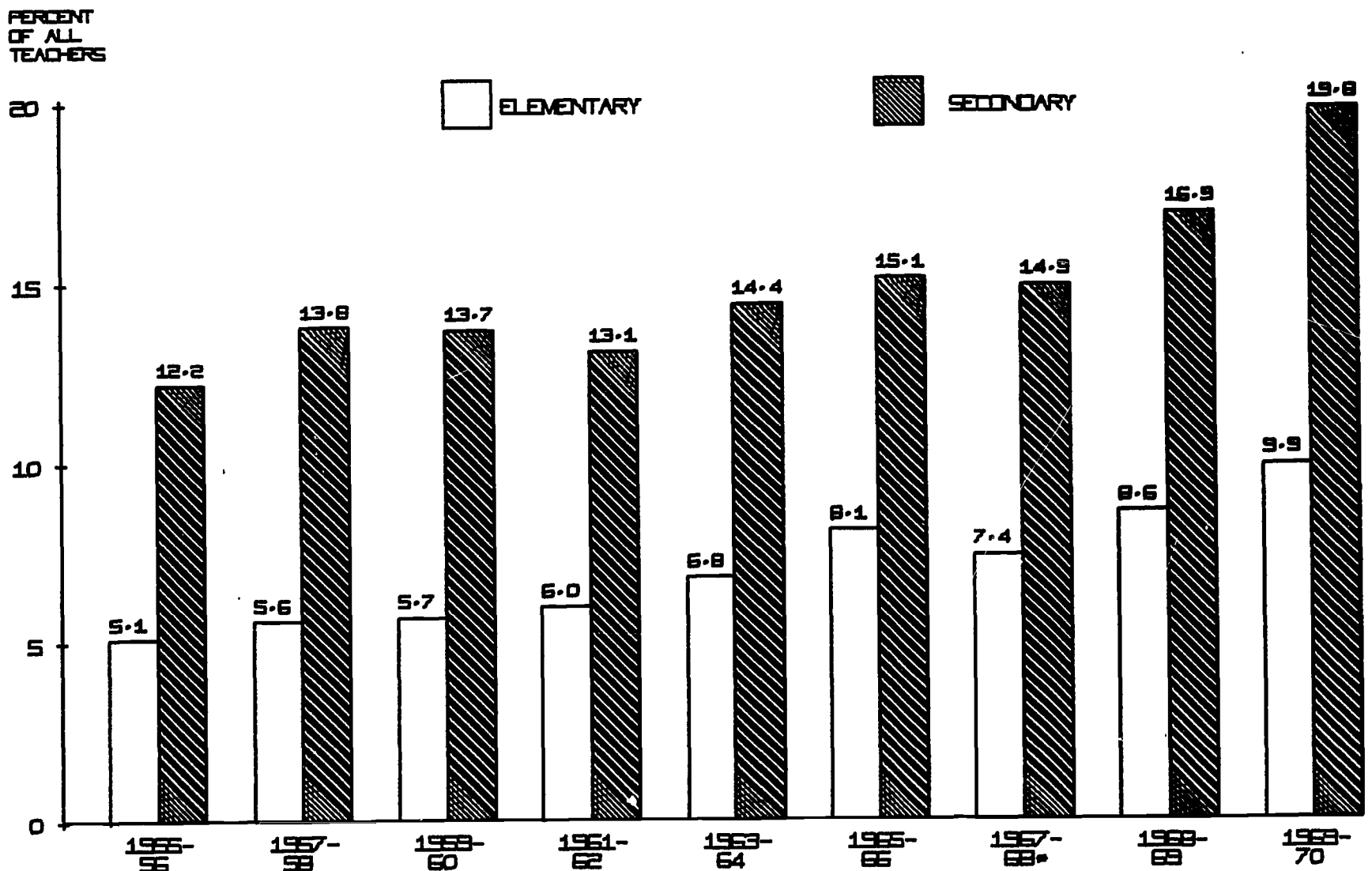
Estimates of the supply of teacher education graduates prepared to enter teaching positions in 1969 and estimates of the number of teaching positions to be filled by these graduates have been presented. A comparison of the numbers of positions included in these estimates provides a general indication 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 1968-69 and their assignments reported by 17 states was summarized in Table 15 in the preceding section. The total numbers of new teachers and the numbers of persons completing teacher education programs in these same 17 states

**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.

NEA RESEARCH DIVISION

TABLE 18.--COMPARISON OF THE TOTAL NUMBER OF TEACHER EDUCATION GRADUATES WITH THE NUMBER OF NEW TEACHERS EMPLOYED IN 17 STATES AND D.C., 1968-69

Subject	Total number of teacher education graduates	Number of new teachers employed	Difference	Number of teacher education gradu- ates as percent of new teachers employed
1	2	3	4	5
<u>Elementary</u> (total) .....	(23,158)	(23,023)	(135)	(100.6%)
Regular instruction .....	21,890	22,048	-158	99.3
Selected subjects:				
Art .....	388	178	210	218.0
Foreign languages .....	85	20	65	425.0
Music .....	457	401	56	114.0
Physical and health education ..	338	376	-38	89.9
<u>Secondary</u> (total) .....	(34,018)	(24,226)	(9,792)	(140.4)
Agriculture .....	616	262	354	235.1
Art .....	1,064	745	319	142.8
Business education .....	2,715	1,334	1,381	203.5
Distributive education .....	54	93	-39	58.1
English language arts (total) ....	6,743	5,247	1,496	128.5
Foreign languages (total) .....	1,823	1,154	669	158.0
Home economics .....	2,341	1,143	1,198	204.8
Industrial arts .....	1,247	790	457	157.8
Junior high school (general) .....	57	281	-224	20.3
Mathematics .....	2,325	2,865	-540	81.2
Music .....	1,596	883	713	180.7
Physical and health education ....	4,459	1,816	2,643	245.5
Natural and physical sciences (total) .....	2,447	2,613	-166	93.6
Social sciences (total) .....	6,227	3,158	3,069	197.2
Trade, industrial, vocational, technical .....	170	437	-267	38.9
Other .....	134	1,405	-1,271	9.5
<u>Ungraded</u> (total) .....	(2,286)	(2,785)	(-499)	(82.1)
Special education .....	1,267	2,006	-739	63.2
Librarian .....	299	472	-173	63.3
Guidance counselor .....	720	307	413	234.5

in 1968 are listed in Table 18 in the same subject grouping. 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 former 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 elementary-school teaching, secondary-school mathematics, secondary-school sciences, and special education. If the entire class of teacher education graduates in these 17 states and the District of Columbia entered teaching, the supply of beginning teachers in these subjects would not equal the demand for new teachers. The limited information about supply and demand for assignments in elementary-school physical and health education, junior high-school subjects, distributive education, and trade-industrial-technical 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 table shows that the supply of qualified beginning elementary-school teachers has been rising toward, and equalled in 1968-69, the numbers of new teachers employed. Mathematics, which comprises 12 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 20 percent of the new high-school teachers seems to have a recent improvement in supply. Library science, involving 1 to 2 percent of the new high-school teachers, has been in relatively short supply continuously through these years studied. Industrial arts, involving about 3 percent of the new high-school teachers seems to have had 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 are estimated to be establishing new records in 1969-70.

#### Supply of New Teachers Compared with Demand (QCE)

Two estimates of the supply of new teachers compared with the estimated demand for new teachers based on the Quality Criterion are shown below:

The first estimate of the supply of new teachers (past practice) uses the same assumptions about the levels of teacher re-entry and entry of teacher education graduates into the profession as described earlier. This provides an estimate of the number of new teachers who will be available for employment if general conditions remain about the same as observed last year.

The second estimate (potential supply) is based on a hypothesis that if the total QCE demand for new teachers were resulting in vacancies to be filled in the fall of 1969, the levels of re-entry of former teachers and entry of teacher education graduates may rise to higher levels than has been observed in recent years. Evidence from the years of critical shortage of teachers suggests that these changes in entry rates are not likely to occur.

The two estimates show a shortage of 209,000 to 228,000 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 483,400 persons estimated in the demand for new teachers. Therefore, these shortage estimates should be interpreted only in general terms.

	Number of new teachers		
	Elementary	Secondary	Total
Estimated demand (Quality Criterion)	290,950	192,450	483,400
Estimated supply (past practice)* ..	123,647	131,594	255,241
Shortage A .....	167,303	60,856	228,159
Estimated supply (potential)** .....	127,485	146,467	273,952
Shortage B .....	163,465	45,983	209,448

\* 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 1968. Entry into teaching by 1969 graduates at the same level reported by subject in 1968. Supply in special education apportioned between elementary and secondary.

\*\* Re-entry of former teachers as described above. Entry into teaching by 85.0 percent of the 109,394 teacher education graduates prepared for elementary-school teaching and by 75.0 percent of the 160,756 teacher education graduates prepared for high-school teaching. Supply in special education apportioned between elementary and secondary.



TABLE 19.--TEACHER EDUCATION GRADUATES AS PERCENT OF NEW TEACHERS EMPLOYED  
IN SELECTED STATES, 4-YEAR INTERVALS SINCE 1948-49

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
1	2	3	4	5	6	7
Elementary (total) .....	29.7%	55.6%	48.0%	58.2%	70.3%	100.6%
Secondary-school subjects (total) ...	111.7	131.7	111.4	119.1	131.3	140.4
Agriculture .....	136.6	163.8	163.9	184.3	176.8	235.1
Art .....	117.1	264.5	139.5	154.4	165.4	142.8
Business education .....	103.0	147.1	134.2	158.5	168.7	203.5
English .....	95.8	105.9	73.0	73.7	95.9	128.5
Foreign languages .....	171.1	213.3	120.1	76.1	106.6	158.0
Home economics .....	114.6	137.9	128.3	141.7	170.6	204.8
Industrial arts .....	103.9	166.5	123.5	169.0	121.3	157.8
Journalism .....	103.3	82.1	78.4	59.2	93.8	a/
Library science .....	65.5	69.6	35.0	27.9	39.1	63.3
Mathematics .....	73.6	108.8	58.2	73.1	79.6	81.2
Music .....	105.9	164.9	127.2	174.5	171.0	180.7
Physical education--men .....	148.1	278.9	185.0	286.0	283.0	245.5
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	93.6
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	
Social studies .....	157.1	207.3	164.1	153.1	186.4	197.2
Speech .....	126.2	313.8	256.9	260.8	469.5	a/
Other (special education, junior high school, vocational, dis- tributive education, guidance) ..	...	246.7	40.8	73.6	87.0	53.0
Number of states reporting .....	21	26 + Alaska Hawaii D.C.	32 + Alaska D.C.	26 + D. C.	27+ D. C.	17 + D. C.

a/ Included with English.

#### Supply Compared with Demand (ATCE) for Beginning Teachers

A very general estimate of the status of teacher supply and demand in 17 states in 1968 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 states. If it is assumed that these 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 this fall, 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 1969. The estimates of demand are based on the Adjusted Trend Criterion which projects the actual number of positions to be filled in fall 1969. The differences listed in columns 5 and 6 show the adequacy of the 1969 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 increased availability of positions in other occupations and the higher economic rewards of many of these positions may increase the loss to the profession of teachers presently employed as well as former teachers who would ordinarily be considering re-entry into the profession. This general economic condition may

increase the demand for beginning teachers beyond 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 1969 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 1969.

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 grad- uates of previous year			Teacher education grad- uates 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 .....	908,000	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 <u>a/</u>	7.7	783,000	122,208 <u>a/</u>	15.6
1967-68 .....	1,040,000 <u>b/</u>	76,607 <u>c/</u>	7.4	815,000 <u>b/</u>	121,554 <u>a/c/</u>	14.9
1968-69 .....	1,058,000 <u>d/</u>	91,336 <u>a/</u>	8.6	852,000 <u>d/</u>	143,611 <u>a/</u>	16.9
1969-70 .....	1,061,000 <u>d/</u>	105,551 <u>a/</u>	9.9	881,000 <u>d/</u>	174,344	19.8

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.)

<sup>a/</sup> 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.

<sup>b/</sup> Preliminary estimate.

<sup>c/</sup> Estimate may be from 2 to 6 percent lower than actual numbers owing to incomplete reports in two states.

<sup>d/</sup> Projection.

# VI EPIQUE IV

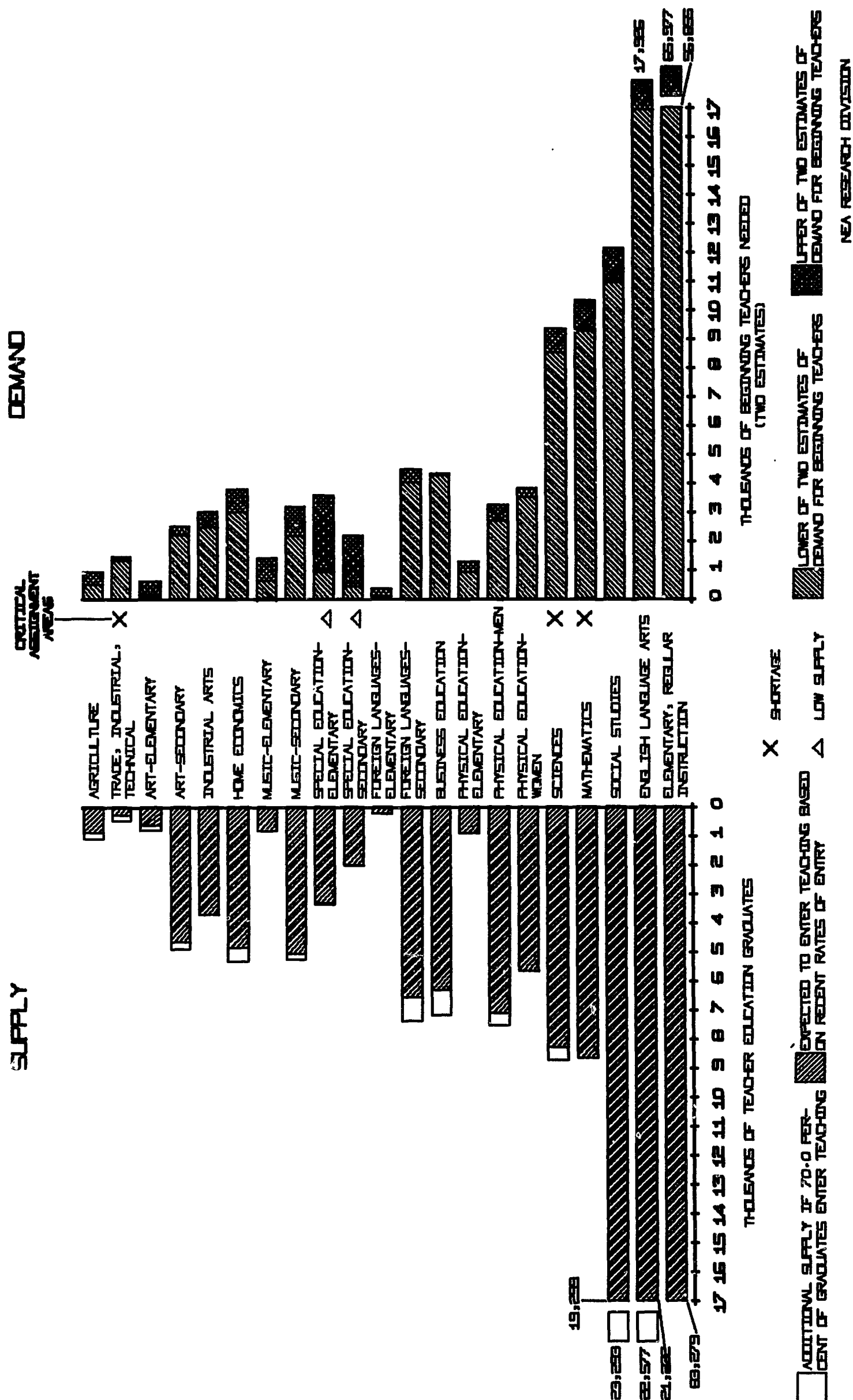


TABLE 21.--COMPARISON OF THE ESTIMATED SUPPLY OF BEGINNING TEACHERS WITH THE ADJUSTED TREND CRITERION ESTIMATE OF DEMAND FOR BEGINNING TEACHERS AND FOR NEW TEACHERS IN 1969, BY ASSIGNMENT

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	
		Distribu- tion last year	Estimated national distribu- tion	Distribu- tion last year	Estimated national distribu- tion	Distribu- tion last year	Estimated national distribu- tion
1	2	3	4	5	6	7	8
Elementary (total) .	(89,147)	(72,900)	(59,786)	(+16,247)	(+29,361)	(34,500)	(34,371)
Regular instruc- tion .....	83,279	65,977	56,855	+17,302	+26,424	31,224	32,822
Selected subjects:							
Art .....	617	598	106	+19	+511	284	39
Foreign language	219	88	346	+131	-127	42	277
Music .....	826	1,392	617	-566	+209	658	370
Physical and health educa- tion .....	896	1,271	929	-375	-33	601	288
Special educa- tion .....	3,310 <sup>a/</sup>	3,574	933	-264	+2,377	1,691	575
Secondary (total) ..	(105,694)	(82,400)	(78,213)	(+23,294)	(+26,035)	(25,900)	(24,132)
Agriculture .....	882	920	488	-38	+394	289	272
Art .....	4,654	2,502	2,186	+2,152	+2,468	786	606
Business education	6,298	4,331	4,267	+1,967	+2,031	1,361	1,445
Distributive edu- cation .....	284	373	...	-89	...	118	...
English language arts .....	21,232	16,926	17,926	+4,306	+3,306	5,320	6,265
Foreign language .	6,552	4,031	4,471	+2,521	+2,081	1,267	1,196
Home economics ...	4,852	3,782	2,990	+1,070	+1,862	1,189	1,401
Industrial arts ..	3,690	2,463	2,994	+1,227	+696	774	849
Junior high school	682	1,434	...	-752	...	450	...
Mathematics .....	8,652	9,267	10,327	-615	-1,675	2,912	3,208
Music .....	5,044	3,174	2,171	+1,870	+2,873	998	720
Physical and health educa- tion--men .....	7,110	3,237	2,704	+3,873	+4,406	1,018	527
Physical and health educa- tion--women ....	5,652	3,532	3,820	+1,730	+1,442	1,111	1,090
Natural and phys- ical sciences ..	8,267	8,527	9,334	-260	-1,067	2,680	2,852
Social studies ...	19,299	10,944	12,133	+8,355	+7,166	3,439	2,773
Trade, industrial, vocational, technical .....	279	1,447	1,322	-1,168	-1,043	455	337
Special education.	2,004 <sup>a/</sup>	2,165	432	161	+1,572	681	248
Other subjects ...	651	3,345	648	-2,694	+3	1,052	343

NOTE: Estimated supply is from Table 9; estimated demand, from Table 16.

<sup>a/</sup> Estimated supply was reported as an ungraded assignment. The total number expected to enter teaching in elementary schools was arbitrarily assigned.



TABLE 22.--SUMMARY OF ESTIMATED SUPPLY COMPARED WITH THE ADJUSTED TREND CRITERION  
ESTIMATE OF DEMAND FOR BEGINNING TEACHERS IN 1969, ELEMENTARY-SCHOOL  
AND SECONDARY-SCHOOL SUBJECT AREAS, BY RANK

Assignment	Numerical difference in the estimated sup- ply of beginning teachers and estimated demand based on Percent dis- National tribution estimate in 1968		Percent of teacher education graduates entering the pro- fession	Estimated additional supply if 70.0 per- cent of graduates entered	Additional demand if estimated re-entry rate is reduced by 10%	General condition
1	2	3	4	5	6	7
Mathematics .....	-615	-1,675	71.2%	...	-321	Shortage
Natural and physical sciences .....	-260	-1,067	66.3	461	-285	Shortage
Trade, industrial, vocational, technical	-1,168	-1,043	41.3	194	-34	Shortage
Special education						
Elementary .....	-264	2,337	69.0	77	-57	Low supply
Secondary .....	-161	1,572	69.0		-25	Low supply
Distributive education	-89	...	65.5	21	-118	Low supply
Industrial arts .....	1,227	696	70.9	...	-85	Near balance
Physical and health education--secon- dary (women) .....	1,730	1,442	74.2	...	-109	Near balance
Junior high-school subjects .....	-572	...	83.6	...	-450	Possible shortage <sup>a/</sup>
Elementary, regular instruction .....	17,302	26,424	78.5	...	-3,282	Near balance
Agriculture .....	-38	394	64.0	206	-27	Near balance
English language arts	4,306	3,306	65.8	1,345	-627	Adequate supply
Home economics .....	1,070	1,862	63.9	464	-140	Adequate supply
Art						
Elementary .....	19	511	54.1	182	-4	Near balance <sup>a/</sup>
Secondary .....	2,152	2,468	66.5	245	-61	Adequate supply
Foreign languages						
Elementary .....	131	-127	72.8	...	-28	Near balance <sup>a/</sup>
Secondary .....	2,521	2,081	62.3	811	-120	Adequate supply
Business education ..	1,967	2,031	61.4	883	-145	Adequate supply
Music						
Elementary .....	-566	209	74.5	...	-37	Possible shortage <sup>a/</sup>
Secondary .....	1,870	2,873	67.4	195	-72	Adequate supply
Physical and health education						
Elementary .....	-375	-33	69.4	8	-29	Possible shortage <sup>a/</sup>
Secondary (men) ..	3,873	4,406	66.0	427	-53	Adequate supply
Social studies .....	8,355	7,166	58.0	3,994	-277	Adequate supply

<sup>a/</sup> Information is not sufficiently complete to allow an accurate estimate of the supply-demand condition.

numerical differences provide only a sugges-  
tion 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 esti-  
mated supply and the two estimates of the de-  
mand for beginning teachers (columns 2 and 3)  
show the condition of each assignment if the  
factors related to supply and demand operate  
as reported in 23 states and the District of  
Columbia last year. The enlargement, rate of

teacher turnover, and extent of re-entry of staff were influenced by some shortages in 1968 as well as continuation of the chronic shortages of qualified persons in several assignments. Possibly the pattern of the numbers of new teachers in the assignments would have been different if the supply of beginning teachers were more than adequate for each assignment.

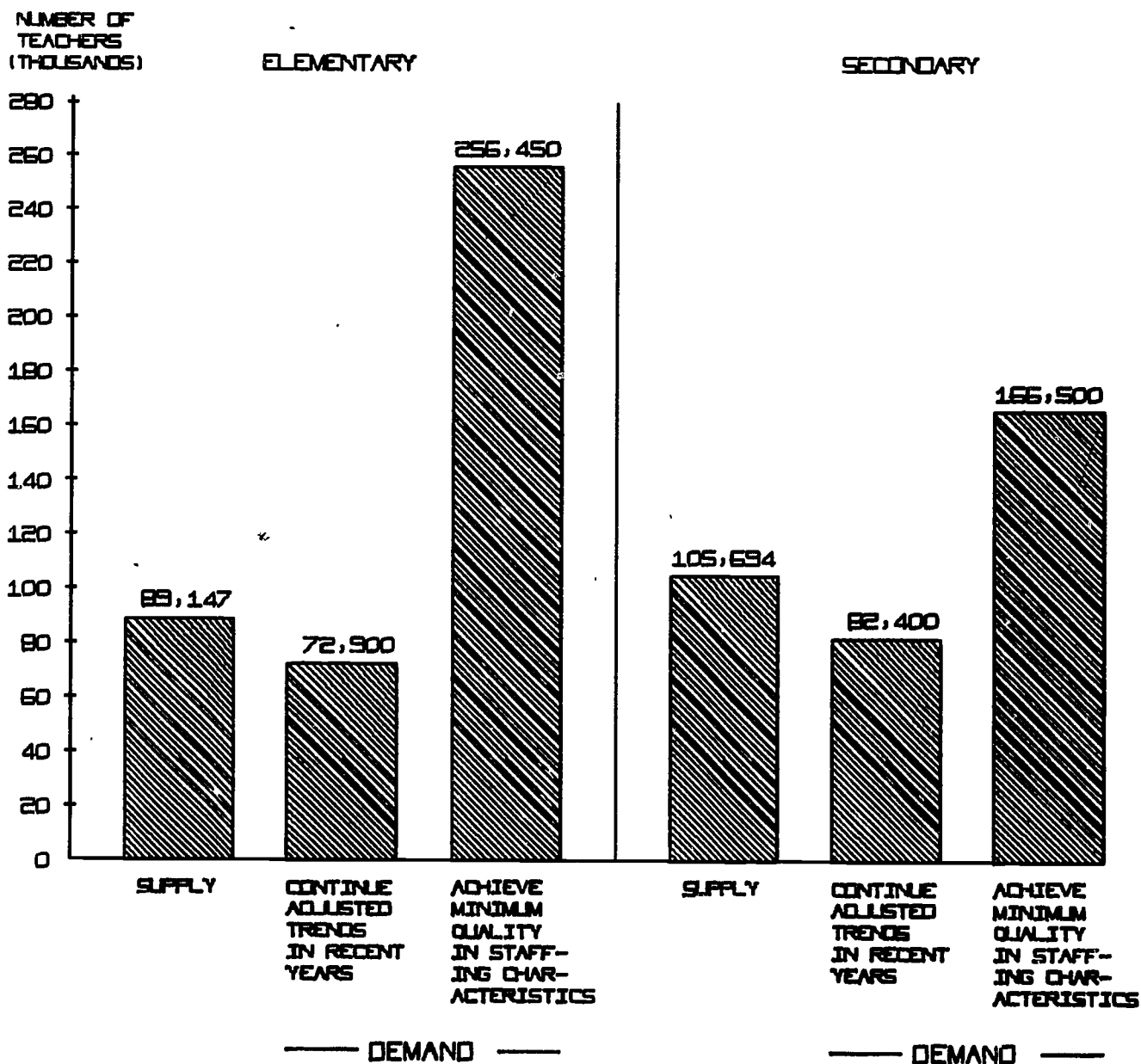
The percent of qualified graduates entering the profession last year (column 4) provides an indication of the possible availability of qualified persons from earlier graduating classes. The size of these pools of qualified beginning teachers may be least adequate in the subject areas having the highest proportions of graduates entering the profession immediately subsequent to their graduation. For example, since a relatively high proportion (78.9 percent) of graduates prepared to teach elementary-school classes typically enter the profession immediately following their gradua-

tion, little growth would be expected in the pool of potential beginning teachers from recent graduating classes. At the other extreme, annual enlargement of a pool of qualified potential beginning teachers is likely in agriculture where about three-fifths of the graduates typically enter the profession immediately following graduation.

The additional supply of beginning teachers from the 1969 graduating class if 70.0 percent of the graduates enter teaching (column 5) shows an estimate of the potential supply which may be tapped, if needed. The rate projected, 70.0 percent, is slightly lower than the average reported for all teacher education graduates in recent years; it is assumed that this rate may be attained among graduates prepared for any assignment if employment opportunities are available and attractive. This assumption may be unrealistic when applied to certain multi-subject assignment areas, such as the

**FIGURE V**

**ESTIMATES OF SUPPLY OF TEACHER EDUCATION GRADUATES EXPECTED TO ENTER TEACHING  
AND DEMAND FOR BEGINNING TEACHERS, 1968-70**



NEA RESEARCH DIVISION

TABLE 23.--SUMMARY OF THE COMPARISONS OF ESTIMATED SUPPLY WITH THE  
ESTIMATES OF DEMAND FOR BEGINNING TEACHERS, 1969-70

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 .....	89,147	72,900	+16,247	122.3%
Estimated national distribution.	89,147	59,786	+29,361	149.1
Quality criterion .....	89,147	256,450	-167,303	34.8
Secondary school				
Adjusted Trend Criterion				
Distribution of new teachers last year .....	105,694	82,400	+23,294	128.3
Estimated national distribution.	105,694	78,213	+26,035	135.1
Quality criterion .....	105,694	166,550	-60,856	63.5
Total				
Adjusted Trend Criterion				
Distribution of new teachers last year .....	194,841	155,300	+39,541	125.5
Estimated national distribution.	194,841	137,999	+56,842	141.2
Quality criterion .....	194,841	423,000	-224,159	46.1

sciences, in which the supply is typically more adequate in one component subject, such as biology, than in the other component subjects.

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 elementary-school teachers by about 3,450 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 the total natural and physical sciences. Limited supply compared with demand is estimated in trade-industrial-vocational-technical subjects, special education, industrial arts, distributive education, and women teachers of physical and health education. 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, and in junior high-school subjects. Local shortages may be observed in

specific foreign languages despite the near-balance between supply and demand estimated for beginning teachers in this field as a whole.

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 the sciences. Low supply is estimated in special education, vocational-technical courses, women's physical education, industrial arts, and in distributive education. Intensification of shortages estimated in these fields and creation of shortages in others may result from acceleration in progress toward improved quality in educational staffing.

#### Supply Compared with Demand for School Librarians and Guidance Counselors

The estimated supplies of beginning school librarians and guidance counselors were listed in Table 7. The Quality Criterion Estimate of demand and the Adjusted Trend Criterion Estimate of demand for new persons in these assignments were reviewed. The following provides a summary and comparison of these estimates:

	Number of staff	
	School librarians	Guidance counselors
Estimated supply of beginning staff in fall 1969* .....	1,379	2,620
Quality Criterion Estimate of demand, exclusive of the number needed to replace those who leave		
For new staff .....	40,689	26,985
For beginning staff	39,606	26,488
Differences .....	-38,227 to -39,310	-23,868 to -24,365
Adjusted Trend Criterion Estimate of demand in 1969		
For new staff .....	1,845	1,193
For beginning staff	762	696
Differences .....	-466 to +617	+1,427 to +1,924

\*Based on entry of 67.5 percent of persons completing preparation to become school librarians and 60.5 percent of persons completing preparation to become guidance counselors.

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 near balance with the demand for them to fill positions in fall 1969. The estimated supply of beginning guidance counselors seems to be adequate for the projected demand for them in fall 1969.



## 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 among 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 shown is information from the states which 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 degree as established in nine 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

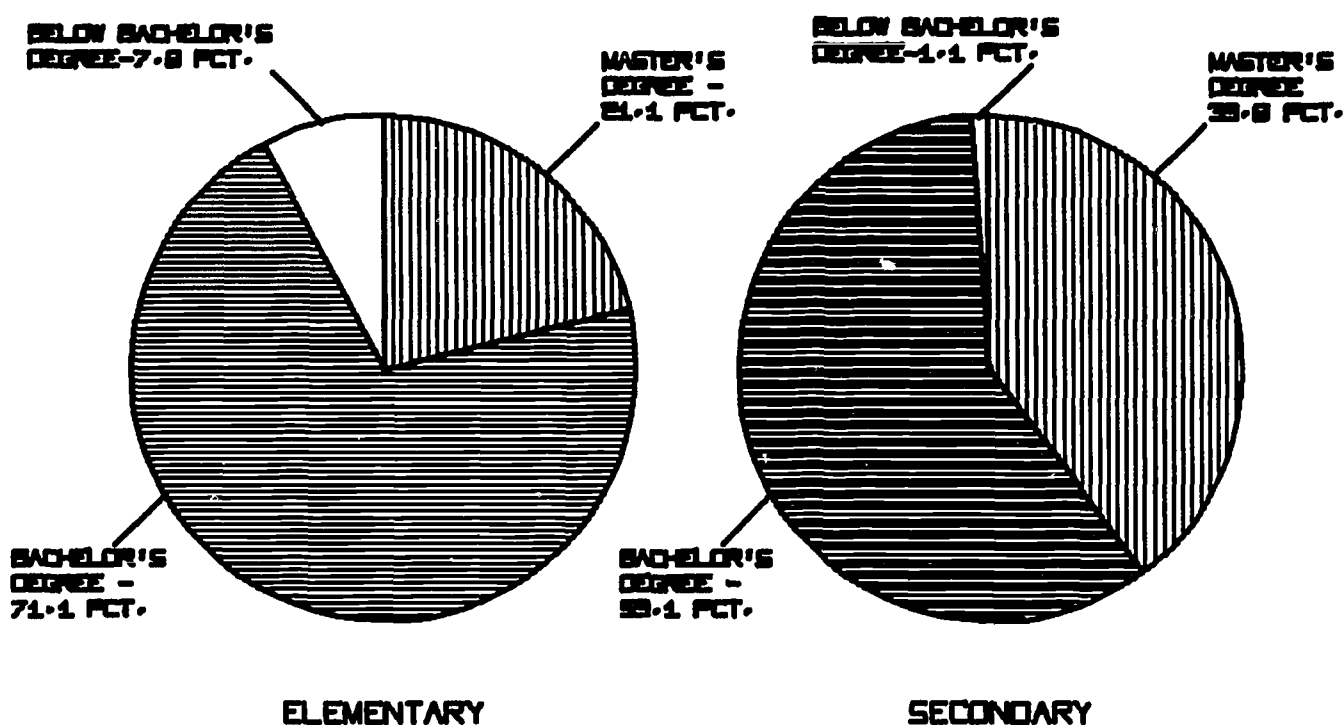
the past 10 years, marked improvement is noted in the proportions of elementary-school teachers who have completed at least the bachelor's degree. However, the pace of this trend was reduced between 1965-66 and 1966-67; possibly this is an outcome of the unusual shortages reported in fall 1966. At the 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 1968-69, marked differences are observed in the proportion of elementary-school teachers who have completed the bachelor's degree, shown in Table 25. Eight of these political subdivisions 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. Five of these

**FIGURE VI**  
**ESTIMATED NATIONAL DISTRIBUTION OF PUBLIC-SCHOOL TEACHERS BY**  
**THEIR HIGHEST LEVEL OF ACADEMIC PREPARATION, 1968-69**



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

**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, 1964-65, 1965-66, 1966-67, 1967-68, and 1968-69: National Education Association, Research Division, unpublished status information obtained from periodic sampling surveys.

states report that more than one-fourth have the master's degree. On the other hand, in seven states less than 10 percent have completed the master's degree. Five states report more than 1 percent having completed less than two years of college preparation.

Information about the preparation level of secondary-school teachers by states 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 fewer 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 15.4 to 60.8. In one of the 28 reporting states, more than half have completed at least the master's degree. On the other hand, in 7 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 substandard 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 27 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 11 of the 27 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 3 percent in 3 of the

27 states reporting this information. The percent of new secondary-school teachers having less than two years of college preparation exceeded 1 percent in 6 of the 27 states reporting this information.

Comparison of information in Tables 25 and 26 for individual states reporting the educational qualifications of new 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 8 of the 27 states providing information about new and all elementary-school teachers: Hawaii, Maryland, Nebraska, Nevada, New Hampshire, North Dakota, Virginia, and Wisconsin. Similar improvement is observed at the secondary-school level in 2 of the 27 states providing information about

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, 1968-69

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 .....	14.9%	13	91.9%	19	1.4%	27.0%	17	97.1%	24	0.5%
Arkansas .....	15.2	12	96.8	11	...	25.3	21	98.9	13	...
Colorado .....	17.5	10	98.6	5	0.1	34.8	7	99.1	10	0.1
Connecticut .....	27.8	4	96.9	10	0.2	47.1	2	99.2	8.5	0.4
Delaware .....	15.6	11	95.3	15	...	31.5	10	96.2	26	...
Florida .....	22.1	7	99.2	3	0.1	30.0	13	99.8	3	*
Georgia .....	11.2	19	98.0	6	...	31.9	9	98.4	18	...
Hawaii .....	7.9	25	91.7	20	...	16.3	27	92.9	28	...
Kansas .....	39.1	1	95.7	14	...	60.8	1	98.9	13	...
Louisiana .....	17.7	9	92.6	17	1.1	30.5	11	98.5	17	0.2
Maryland .....	12.2	18	86.8	22	2.7	24.3	22	96.7	25	0.9
Mississippi <sup>a/</sup> .....	10.1	21	96.7	12	0.1	15.4	28	98.1	20.5	*
Missouri <sup>b/</sup> .....	20.4	8	96.4	13	0.2	41.4	3	98.1	20.5	1.6
Nebraska <sup>a/</sup> .....	4.9	27	68.9	27	0.5	17.6	25	99.0	11	*
Nevada .....	13.1	17	92.2	18	...	25.6	20	99.5	4	...
New Hampshire .....	8.3	23	79.8	26	13.7	26.7	17	93.4	27	3.1
New Mexico .....	25.9	5	99.5	2	...	40.3	4	99.9	2	...
North Dakota .....	2.9	28	49.6	28	0.3	16.7	26	99.2	8.5	*
Oklahoma .....	33.9	2	100.0	1	...	38.0	5	99.3	6.5	...
Oregon <sup>a/</sup> .....	14.0	14	93.5	16	...	37.1	6	98.9	13	...
Tennessee .....	13.8	15	84.0	25	0.6	28.5	14	98.3	19	0.2
Texas .....	27.9	3	97.7	7	c/	30.4	12	98.6	16	c/
Utah .....	6.7	26	97.5	8	...	19.3	24	99.4	5	...
Virginia .....	8.0	24	87.6	21	3.6	19.9	23	98.0	22	1.9
Washington .....	24.9	6	97.2	9	c/	34.0	8	99.3	6.5	c/
West Virginia .....	13.3	16	84.9	24	0.4	27.7	15.5	97.3	23	0.9
Wisconsin .....	10.3	20	86.5	23	0.2	27.7	15.5	98.7	15	0.1
Wyoming .....	8.4	22	99.1	4	...	26.4	19	100.0	1	...

\* Less than 1/10 of 1 percent.

<sup>a/</sup> Teachers whose preparation level is not known are not included.

<sup>b/</sup> Data are for 1967-68.

<sup>c/</sup> Data not available in this classification.

new and all secondary-school teachers--Hawaii and New Hampshire.

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 observed in 5 of the 27 states providing information about new and all elementary-school teachers: Alabama, Louisiana, Texas, Utah, and West Virginia. Similar lowering of quality is suggested in 5 of the 27 states providing information about new and all secondary-school teachers: Alabama, Tennessee, Texas, West Virginia, and Wisconsin.

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, 1968-69, IN 27 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 .....	5.5%	15	85.2%	23	3.9%	7.6%	15.5	92.1%	26	2.0%
Arkansas .....	8.6	8.5	96.2	13	...	7.6	15.5	97.6	12	...
Colorado .....	3.2	20	98.7	5.5	0.1	7.8	14	98.3	9	0.2
Connecticut .....	12.0	4	98.7	5.5	0.1	23.5	3	98.5	8	0.1
Delaware .....	7.2	11	96.7	11.5	...	12.6	10	94.2	22	...
Florida .....	13.6	2	98.3	8	0.3	18.4	7	99.4	4	*
Hawaii .....	8.6	8.5	98.3	8	...	18.5	6	95.9	19	...
Kansas .....	11.2	5	98.3	8	...	25.6	2	96.6	14	...
Louisiana .....	4.1	17	87.4	22	3.2	7.9	13	96.3	17	0.5
Maryland .....	7.9	10	91.8	19	1.8	12.5	11	95.8	20	1.2
Mississippi <sup>a/</sup> .....	4.8	16	94.4	16	0.1	5.7	19.5	96.2	18	0.1
Missouri <sup>b/</sup> .....	9.4	7	94.6	15	0.6	19.2	4.5	97.3	13	2.1
Nebraska <sup>a/</sup> .....	3.3	19	77.7	25	1.4	5.7	19.5	98.7	6.5	0.1
Nevada .....	14.5	1	100.0	2	...	31.1	1	100.0	2	...
New Hampshire .....	1.8	23	93.5	18	2.4	3.6	24	96.4	15.5	2.7
New Mexico .....	10.5	6	98.9	4	...	17.3	8	100.0	2	...
North Dakota .....	1.8	23	75.9	27	1.2	7.1	18	99.6	5	...
Oklahoma .....	0.5	27	100.0	2	...	4.3	22	94.8	21	...
Oregon <sup>a/</sup> .....	6.3	13	94.2	17	...	14.2	9	97.7	11	...
Tennessee .....	0.8	26	84.6	24	2.0	3.2	25.5	93.1	24	1.0
Texas .....	1.8	23	90.9	21	c/	3.2	25.5	94.0	23	c/
Utah .....	2.8	21	91.6	20	...	8.4	12	98.7	6.5	...
Virginia .....	1.6	25	96.0	14	4.0	4.2	23	96.4	15.5	3.6
Washington .....	13.0	3	96.7	11.5	c/	19.2	4.5	97.8	10	c/
West Virginia .....	3.8	18	77.2	26	0.4	7.2	17	92.5	25	2.4
Wisconsin .....	5.9	14	97.3	10	0.1	2.7	27	84.9	27	0.2
Wyoming .....	7.0	12	100.0	2	...	5.6	21	100.0	2	...

\*Less than 1/10 of 1 percent.

<sup>a/</sup> Teachers whose preparation level is not known are not included.

<sup>b/</sup> Data for 1967-68.

<sup>c/</sup> Data not available in this classification.



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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	
	1969	1968	1969	1968	1969	1968
ELEMENTARY-SCHOOL TOTAL .....	1,455	1,346	68	45	1,497	1,325
REGULAR INSTRUCTION .....	1,422	1,337	68	45	1,496	1,315
SELECTED SUBJECTS(TOTAL) .....	33	9	...	...	1	10
ART .....	3	5	...	...	...	1
FOREIGN LANGUAGES .....	...	...	...	...	1	...
MUSIC .....	19	4	...	...	...	1
PHYSICAL & HEALTH EDUCATION .....	11	...	...	...	...	8
SECONDARY SCHOOL						
AGRICULTURE .....	66	56	...	...	...	...
ART .....	68	42	...	1	101	95
BUSINESS EDUCATION .....	310	217	...	...	131	130
DISTRIBUTIVE EDUCATION .....	...	...	...	...	8	9
ENGLISH LANGUAGE ARTS(TOTAL) .....	573	442	14	11	302	311
ENGLISH .....	520	404	11	11	249	265
JOURNALISM .....	...	1	...	...	5	7
SPEECH AND DRAMATIC ARTS .....	53	37	3	...	48	39
FOREIGN LANGUAGES(TOTAL) .....	76	65	2	6	126	71
FRENCH .....	41	37	1	4	25	8
GERMAN .....	2	1	1	1	8	8
LATIN .....	2	1	...	...	...	...
RUSSIAN .....	...	...	...	...	3	4
SPANISH .....	31	26	...	1	90	49
OTHER .....	...	...	...	...	...	2
HOME ECONOMICS .....	228	216	5	1	102	85
INDUSTRIAL ARTS .....	57	34	...	...	83	78
JUNIOR HIGH SCHOOL(GENERAL) .....	...	...	...	...	...	...
MATHEMATICS .....	235	187	5	2	78	69
MUSIC .....	127	107	4	1	65	60
PHYSICAL & HEALTH EDUCATION .....	468	321	8	4	200	216
NATURAL & PHYSICAL SCIENCES						
(TOTAL) .....	231	196	7	6	103	108
SUBJECT NOT SPECIFIED .....	5	3	...	...	23	39
GENERAL SCIENCE .....	57	51	...	...	9	7
BIOLOGY .....	152	127	7	6	53	43
CHEMISTRY .....	17	15	...	...	17	11
PHYSICS .....	...	...	...	...	1	8
SOCIAL STUDIES(TOTAL) .....	690	573	13	3	250	266
SUBJECT NOT SPECIFIED .....	268	205	...	...	73	65
HISTORY, GEOGRAPHY .....	375	329	9	3	118	111
ECONOMICS, SOCIOLOGY,						
PSYCHOLOGY .....	38	29	2	...	...	...
OTHER SOCIAL STUDIES .....	9	10	2	...	59	90
TRADE, INDUSTRY, TECHNOLOGY .....	...	...	...	...	9	9
OTHER SECONDARY SUBJECTS .....	...	...	...	...	14	26
SECONDARY-SCHOOL TOTAL .....	3,129	2,456	58	35	1,572	1,533
UNGRADED						
SPECIAL EDUCATION .....	...	...	...	...	153	128
LIBRARIAN .....	...	...	...	...	26	34
GUIDANCE COUNSELOR .....	...	...	20	18	193	226
SCHOOL PSYCHOLOGIST .....	...	...	...	...	...	...
SCHOOL SOCIAL WORKER .....	...	...	...	...	1	...
SCHOOL NURSE .....	...	...	...	...	...	...
OTHER UNGRADED .....	...	...	...	...	25	11

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	
	1969	1968	1969	1968	1969	1968
ELEMENTARY-SCHOOL TOTAL .....	1,122	944	5,161	4,608	1,388	1,127
REGULAR INSTRUCTION .....	1,111	934	4,630	4,245	1,298	1,061
SELECTED SUBJECTS(TOTAL) .....	11	10	531	363	90	66
ART .....	...	6	89	157	21	13
FOREIGN LANGUAGES .....	...	...	59	56	4	2
MUSIC .....	6	4	38	43	51	38
PHYSICAL & HEALTH EDUCATION .....	5	...	345	107	14	13
SECONDARY SCHOOL						
AGRICULTURE .....	54	42	106	113	...	20
ART .....	63	51	361	291	148	157
BUSINESS EDUCATION .....	291	226	237	182	153	152
DISTRIBUTIVE EDUCATION .....	4	6	...	1	...	5
ENGLISH LANGUAGE ARTS(TOTAL) .....	429	354	1,349	1,096	424	412
ENGLISH .....	352	273	1,179	962	350	337
JOURNALISM .....	4	3	29	20	3	2
SPEECH AND DRAMATIC ARTS .....	73	78	141	114	71	73
FOREIGN LANGUAGES(TOTAL) .....	58	40	555	493	165	168
FRENCH .....	21	11	183	180	44	52
GERMAN .....	1	1	78	76	20	20
LATIN .....	1	2	28	12	3	3
RUSSIAN .....	...	...	9	7	7	2
SPANISH .....	31	22	246	207	91	89
OTHER .....	4	4	11	11	...	2
HOME ECONOMICS .....	158	124	290	220	49	84
INDUSTRIAL ARTS .....	33	20	251	166	160	176
JUNIOR HIGH SCHOOL(GENERAL) .....	...	...	...	...	1	2
MATHEMATICS .....	162	149	288	221	132	127
MUSIC .....	128	108	167	122	120	131
PHYSICAL & HEALTH EDUCATION .....	433	345	683	507	252	281
NATURAL & PHYSICAL SCIENCES						
(TOTAL) .....	165	114	495	429	174	185
SUBJECT NOT SPECIFIED .....	2	3	79	44	54	45
GENERAL SCIENCE .....	40	34	16	12	22	18
BIOLOGY .....	108	69	318	309	76	97
CHEMISTRY .....	14	5	60	47	17	18
PHYSICS .....	1	3	22	17	5	7
SOCIAL STUDIES(TOTAL) .....	417	311	1,819	1,539	493	479
SUBJECT NOT SPECIFIED .....	306	249	376	386	236	255
HISTORY, GEOGRAPHY .....	101	60	1,028	823	191	186
ECONOMICS, SOCIOLOGY,						
PSYCHOLOGY .....	5	...	194	153	33	22
OTHER SOCIAL STUDIES .....	5	2	221	177	33	16
TRADE, INDUSTRY, TECHNOLOGY .....	5	5	...	33	...	63
OTHER SECONDARY SUBJECTS .....	3	4	58	59	12	44
SECONDARY-SCHOOL TOTAL .....	2,403	1,899	6,659	5,472	2,283	2,486
UNGRADED						
SPECIAL EDUCATION .....	164	98	195	228	230	250
LIBRARIAN .....	4	4	121	78	3	3
GUIDANCE COUNSELOR .....	132	105	476	225	115	92
SCHOOL PSYCHOLOGIST .....	...	...	83	64	...	2
SCHOOL SOCIAL WORKER .....	...	...	64	21	...	...
SCHOOL NURSE .....	...	...	26	12	...	...
OTHER UNGRADED .....	...	...	61	100	23	69

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	
	1969	1968	1969	1968	1969	1968
ELEMENTARY-SCHOOL TOTAL .....	1,779	1,589	186	158	209	299
REGULAR INSTRUCTION .....	1,779	1,576	186	157	207	295
SELECTED SUBJECTS(TOTAL) .....	...	13	...	1	2	4
ART .....	...	1	...	...	...	1
FOREIGN LANGUAGES .....	...	...	...	...	2	2
MUSIC .....	...	12	...	1	...	1
PHYSICAL & HEALTH EDUCATION .....	...	...	...	...	...	...
SECONDARY SCHOOL						
AGRICULTURE .....	3	4	5	3	...	...
ART .....	137	109	20	6	11	10
BUSINESS EDUCATION .....	46	56	23	16	28	23
DISTRIBUTIVE EDUCATION .....	13	8	...	...	...	...
ENGLISH LANGUAGE ARTS(TOTAL) .....	348	331	35	21	65	83
ENGLISH .....	346	331	33	21	58	68
JOURNALISM .....	...	...	...	...	...	...
SPEECH AND DRAMATIC ARTS .....	2	...	2	...	7	15
FOREIGN LANGUAGES(TOTAL) .....	166	164	27	18	22	32
FRENCH .....	87	87	10	9	13	22
GERMAN .....	13	15	4	2	...	4
LATIN .....	10	13	1	1	...	...
RUSSIAN .....	...	2	...	...	...	...
SPANISH .....	54	46	12	6	9	6
OTHER .....	2	1	...	...	...	...
HOME ECONOMICS .....	17	15	26	29	2	1
INDUSTRIAL ARTS .....	54	28	...	...	...	...
JUNIOR HIGH SCHOOL(GENERAL) .....	...	...	...	...	...	...
MATHEMATICS .....	156	139	19	9	14	13
MUSIC .....	92	66	9	10	14	22
PHYSICAL & HEALTH EDUCATION .....	212	176	42	33	26	20
NATURAL & PHYSICAL SCIENCES						
(TOTAL) .....	147	156	9	6	6	5
SUBJECT NOT SPECIFIED .....	1	...	...	1	...	...
GENERAL SCIENCE .....	25	30	1	...	5	3
BIOLOGY .....	94	93	7	4	...	1
CHEMISTRY .....	18	30	1	1	1	...
PHYSICS .....	9	3	...	...	...	1
SOCIAL STUDIES(TOTAL) .....	339	270	39	33	84	62
SUBJECT NOT SPECIFIED .....	111	88	33	27	25	18
HISTORY, GEOGRAPHY .....	182	156	2	6	59	43
ECONOMICS, SOCIOLOGY,						
PSYCHOLOGY .....	4	2	2	...	...	...
OTHER SOCIAL STUDIES .....	42	24	2	...	...	1
TRADE, INDUSTRY, TECHNOLOGY .....	25	50	...	...	8	...
OTHER SECONDARY SUBJECTS .....	18	14	...	...	...	2
SECONDARY-SCHOOL TOTAL .....	1,773	1,586	254	184	280	273
UNGRADED						
SPECIAL EDUCATION .....	149	124	...	...	33	28
LIBRARIAN .....	67	52	...	...	...	...
GUIDANCE COUNSELOR .....	63	65	...	...	28	63
SCHOOL PSYCHOLOGIST .....	6	7	...	...	5	8
SCHOOL SOCIAL WORKER .....	...	...	...	...	...	...
SCHOOL NURSE .....	...	...	...	...	...	...
OTHER UNGRADED .....	80	62	...	...	...	...



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	
	1969	1968	1969	1968	1969	1968
ELEMENTARY-SCHOOL TOTAL .....	2,590	2,322	1,763	1,540	443	439
REGULAR INSTRUCTION .....	2,520	2,283	1,763	1,540	443	433
SELECTED SUBJECTS(TOTAL) .....	70	39	...	...	...	6
ART .....	19	11	...	...	...	6
FOREIGN LANGUAGES .....	...	...	...	...	...	...
MUSIC .....	21	3	...	...	...	...
PHYSICAL & HEALTH EDUCATION .....	30	25	...	...	...	...
SECONDARY SCHOOL						
AGRICULTURE .....	19	16	21	12	...	...
ART .....	133	126	95	52	9	1
BUSINESS EDUCATION .....	177	151	169	177	26	15
DISTRIBUTIVE EDUCATION .....	8	8	12	9	2	...
ENGLISH LANGUAGE ARTS(TOTAL) .....	695	612	519	434	54	60
ENGLISH .....	575	513	481	411	33	52
JOURNALISM .....	29	26	10	...	...	...
SPEECH AND DRAMATIC ARTS .....	91	73	28	23	21	8
FOREIGN LANGUAGES(TOTAL) .....	190	147	106	115	14	19
FRENCH .....	56	39	65	69	4	6
GERMAN .....	10	10	12	10	1	...
LATIN .....	2	5	2	3	3	1
RUSSIAN .....	2	2	...	...	...	...
SPANISH .....	118	91	27	32	...	3
OTHER .....	2	...	...	1	6	9
HOME ECONOMICS .....	102	103	144	136	3	9
INDUSTRIAL ARTS .....	56	66	72	42	8	10
JUNIOR HIGH SCHOOL(GENERAL) .....	4	3	81	59	...	...
MATHEMATICS .....	259	239	251	188	23	27
MUSIC .....	220	197	117	115	11	8
PHYSICAL & HEALTH EDUCATION .....	479	397	232	192	31	29
NATURAL & PHYSICAL SCIENCES						
(TOTAL) .....	190	152	231	184	11	34
SUBJECT NOT SPECIFIED .....	17	4	66	59	4	21
GENERAL SCIENCE .....	37	36	62	40	1	5
BIOLOGY .....	109	85	85	73	4	6
CHEMISTRY .....	22	20	12	10	2	2
PHYSICS .....	5	7	6	2	...	...
SOCIAL STUDIES(TOTAL) .....	877	658	687	513	54	50
SUBJECT NOT SPECIFIED .....	539	461	432	314	40	47
HISTORY, GEOGRAPHY .....	125	86	184	148	10	2
ECONOMICS, SOCIOLOGY,						
PSYCHOLOGY .....	165	79	69	48	4	...
OTHER SOCIAL STUDIES .....	48	32	2	3	...	1
TRADE, INDUSTRY, TECHNOLOGY .....	11	15	25	23	...	...
OTHER SECONDARY SUBJECTS .....	...	1	17	5	18	...
SECONDARY-SCHOOL TOTAL .....	3,420	2,891	2,779	2,256	264	262
UNGRADED						
SPECIAL EDUCATION .....	195	188	135	80	...	...
LIBRARIAN .....	87	69	21	19	...	...
GUIDANCE COUNSELOR .....	121	122	133	71	...	...
SCHOOL PSYCHOLOGIST .....	...	...	5	4	10	1
SCHOOL SOCIAL WORKER .....	...	...	17	17	...	...
SCHOOL NURSE .....	...	...	...	...	...	...
OTHER UNGRADED .....	3	6	59	50	...	...

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	
	1969	1968	1969	1968	1969	1968
ELEMENTARY-SCHOOL TOTAL .....	426	397	5,967	4,819	2,717	2,279
REGULAR INSTRUCTION .....	426	397	5,510	4,500	2,682	2,243
SELECTED SUBJECTS(TOTAL) .....	...	...	457	319	35	36
ART .....	...	...	217	163	13	12
FOREIGN LANGUAGES .....	...	...	35	20	2	2
MUSIC .....	...	...	85	68	6	8
PHYSICAL & HEALTH EDUCATION .....	...	...	120	68	14	14
SECONDARY SCHOOL						
AGRICULTURE .....	12	6	112	121	28	33
ART .....	27	20	400	321	177	123
BUSINESS EDUCATION .....	28	38	573	482	244	188
DISTRIBUTIVE EDUCATION .....	1	2	22	4	1	5
ENGLISH LANGUAGE ARTS(TOTAL) .....	63	97	1,961	1,601	817	702
ENGLISH .....	56	88	1,603	1,298	695	606
JOURNALISM .....	...	...	23	22	11	16
SPEECH AND DRAMATIC ARTS .....	7	9	335	281	111	80
FOREIGN LANGUAGES(TOTAL) .....	10	12	772	568	345	306
FRENCH .....	3	6	305	212	123	119
GERMAN .....	2	2	106	68	34	39
LATIN .....	...	2	36	37	21	22
RUSSIAN .....	...	...	14	18	8	4
SPANISH .....	5	2	293	203	159	122
OTHER .....	...	...	18	30	...	...
HOME ECONOMICS .....	27	31	312	231	182	172
INDUSTRIAL ARTS .....	11	7	299	226	164	118
JUNIOR HIGH SCHOOL(GENERAL) .....	...	...	165	106	...	...
MATHEMATICS .....	28	30	828	673	313	259
MUSIC .....	49	26	491	382	245	248
PHYSICAL & HEALTH EDUCATION .....	74	94	1,129	768	628	493
NATURAL & PHYSICAL SCIENCES						
(TOTAL) .....	75	30	603	492	376	274
SUBJECT NOT SPECIFIED .....	11	2	86	79	26	16
GENERAL SCIENCE .....	12	4	19	21	28	20
BIOLOGY .....	32	22	358	279	270	183
CHEMISTRY .....	17	2	93	70	39	38
PHYSICS .....	3	...	47	43	13	17
SOCIAL STUDIES(TOTAL) .....	118	144	1,949	1,460	1,133	790
SUBJECT NOT SPECIFIED .....	48	94	453	392	706	398
HISTORY, GEOGRAPHY .....	42	32	1,038	765	335	309
ECONOMICS, SOCIOLOGY,						
PSYCHOLOGY .....	27	15	248	147	53	38
OTHER SOCIAL STUDIES .....	1	3	210	156	39	45
TRADE, INDUSTRY, TECHNOLOGY .....	...	2	32	17	15	7
OTHER SECONDARY SUBJECTS .....	194	4	47	39	3	3
SECONDARY-SCHOOL TOTAL .....	717	543	9,695	7,491	4,671	3,721
UNGRADED						
SPECIAL EDUCATION .....	4	8	404	296	216	192
LIBRARIAN .....	...	...	60	63	27	24
GUIDANCE COUNSELOR .....	14	27	160	138	60	72
SCHOOL PSYCHOLOGIST .....	...	1	...	...	24	26
SCHOOL SOCIAL WORKER .....	...	...	...	...	...	...
SCHOOL NURSE .....	...	...	...	...	...	...
OTHER UNGRADED .....	43	15	11	2	...	1

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	
	1969	1968	1969	1968	1969	1968
ELEMENTARY-SCHOOL TOTAL .....	2,057	1,714	1,749	1,723	2,033	1,907
REGULAR INSTRUCTION .....	2,057	1,693	1,685	1,616	2,030	1,907
SELECTED SUBJECTS(TOTAL) .....	...	21	64	107	3	...
ART .....	...	5	14	19	1	...
FOREIGN LANGUAGES .....	...	...	6	5	...	...
MUSIC .....	...	12	22	42	1	...
PHYSICAL & HEALTH EDUCATION ....	...	4	22	41	1	...
SECONDARY SCHOOL						
AGRICULTURE .....	47	30	29	12	44	29
ART .....	128	122	126	81	158	115
BUSINESS EDUCATION .....	143	107	155	178	316	244
DISTRIBUTIVE EDUCATION .....	10	16	13	9	...	...
ENGLISH LANGUAGE ARTS(TOTAL) .....	653	455	497	417	625	523
ENGLISH .....	531	382	435	367	582	491
JOURNALISM .....	10	4	3	2	...	3
SPEECH AND DRAMATIC ARTS .....	112	69	59	48	43	29
FOREIGN LANGUAGES(TOTAL) .....	215	244	169	144	102	91
FRENCH .....	94	87	60	45	44	36
GERMAN .....	34	39	22	14	13	11
LATIN .....	4	26	8	5	11	8
RUSSIAN .....	1	...	...	2	3	2
SPANISH .....	82	92	71	68	31	34
OTHER .....	...	...	8	10	...	...
HOME ECONOMICS .....	235	139	149	133	193	155
INDUSTRIAL ARTS .....	82	66	118	142	139	119
JUNIOR HIGH SCHOOL(GENERAL) .....	67	49	...	19	15	26
MATHEMATICS .....	218	214	190	169	188	149
MUSIC .....	203	199	222	175	197	169
PHYSICAL & HEALTH EDUCATION .....	420	392	396	358	493	417
NATURAL & PHYSICAL SCIENCES						
(TOTAL) .....	237	196	176	147	252	164
SUBJECT NOT SPECIFIED .....	19	24	36	52	18	8
GENERAL SCIENCE .....	36	24	9	19	3	...
BIOLOGY .....	140	112	95	54	167	122
CHEMISTRY .....	31	23	25	18	57	30
PHYSICS .....	11	13	11	4	7	4
SOCIAL STUDIES(TOTAL) .....	696	514	480	364	947	713
SUBJECT NOT SPECIFIED .....	238	237	232	162	118	92
HISTORY, GEOGRAPHY .....	288	213	197	168	566	431
ECONOMICS, SOCIOLOGY,						
PSYCHOLOGY .....	105	41	39	25	176	122
OTHER SOCIAL STUDIES .....	65	23	12	9	87	68
TRADE, INDUSTRY, TECHNOLOGY .....	...	...	9	21	10	...
OTHER SECONDARY SUBJECTS .....	...	...	17	4	...	...
SECONDARY-SCHOOL TOTAL .....	3,354	2,743	2,746	2,373	3,679	2,914
UNGRADED						
SPECIAL EDUCATION .....	70	56	34	69	110	63
LIBRARIAN .....	...	...	62	48	23	10
GUIDANCE COUNSELOR .....	...	...	29	41	...	...
SCHOOL PSYCHOLOGIST .....	...	...	2	3	...	...
SCHOOL SOCIAL WORKER .....	...	...	5	3	...	...
SCHOOL NURSE .....	...	...	...	...	...	...
OTHER UNGRADED .....	...	...	11	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	LOUISIANA		MAINE		MARYLAND	
	1969	1968	1969	1968	1969	1968
ELEMENTARY-SCHOOL TOTAL .....	1,857	1,675	417	376	1,477	1,305
REGULAR INSTRUCTION .....	1,847	1,668	408	370	1,440	1,244
SELECTED SUBJECTS(TOTAL) .....	10	7	9	6	37	61
ART .....	5	3	...	...	20	21
FOREIGN LANGUAGES .....	...	...	9	6	...	...
MUSIC .....	...	...	...	...	15	19
PHYSICAL & HEALTH EDUCATION .....	5	4	...	...	2	21
SECONDARY SCHOOL						
AGRICULTURE .....	34	29	...	...	11	10
ART .....	56	38	24	9	114	78
BUSINESS EDUCATION .....	250	206	84	63	55	38
DISTRIBUTIVE EDUCATION .....	12	6	...	...	...	7
ENGLISH LANGUAGE ARTS(TOTAL) .....	485	400	114	139	368	330
ENGLISH .....	382	332	113	138	331	310
JOURNALISM .....	...	...	...	...	...	...
SPEECH AND DRAMATIC ARTS .....	103	68	1	1	37	20
FOREIGN LANGUAGES(TOTAL) .....	128	116	31	32	126	119
FRENCH .....	79	66	25	29	70	72
GERMAN .....	4	...	2	...	9	6
LATIN .....	3	3	1	1	3	1
RUSSIAN .....	1	1	...	...	...	1
SPANISH .....	41	46	3	2	44	38
OTHER .....	...	...	...	...	...	1
HOME ECONOMICS .....	195	166	24	55	66	63
INDUSTRIAL ARTS .....	55	42	34	24	11	11
JUNIOR HIGH SCHOOL(GENERAL) .....	...	...	180	153	5	4
MATHEMATICS .....	235	177	53	57	180	158
MUSIC .....	175	148	38	25	95	60
PHYSICAL & HEALTH EDUCATION .....	418	390	108	54	156	118
NATURAL & PHYSICAL SCIENCES						
(TOTAL) .....	146	138	36	35	155	158
SUBJECT NOT SPECIFIED .....	22	18	...	...	1	4
GENERAL SCIENCE .....	7	10	7	3	44	43
BIOLOGY .....	92	88	26	25	87	89
CHEMISTRY .....	23	18	1	2	18	18
PHYSICS .....	2	4	2	5	5	4
SOCIAL STUDIES(TOTAL) .....	449	345	110	94	457	363
SUBJECT NOT SPECIFIED .....	403	321	58	54	140	104
HISTORY, GEOGRAPHY .....	34	22	44	36	284	227
ECONOMICS, SOCIOLOGY,						
PSYCHOLOGY .....	11	2	8	4	24	13
OTHER SOCIAL STUDIES .....	1	...	...	...	9	19
TRADE, INDUSTRY, TECHNOLOGY .....	2	1	...	2	...	...
OTHER SECONDARY SUBJECTS .....	58	48	1	...	35	22
SECONDARY-SCHOOL TOTAL .....	2,698	2,250	837	742	1,834	1,541
UNGRADED						
SPECIAL EDUCATION .....	94	68	19	10	37	28
LIBRARIAN .....	10	24	...	...	38	25
GUIDANCE COUNSELOR .....	114	102	...	...	41	25
SCHOOL PSYCHOLOGIST .....	8	5	...	...	6	...
SCHOOL SOCIAL WORKER .....	...	...	...	...	...	...
SCHOOL NURSE .....	...	...	...	...	...	...
OTHER UNGRADED .....	69	75	...	...	...	...



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	
	1969	1968	1969	1968	1969	1968
ELEMENTARY-SCHOOL TOTAL .....	4,092	3,243	5,336	4,841	2,591	2,373
REGULAR INSTRUCTION .....	3,941	3,049	5,086	4,691	2,479	2,277
SELECTED SUBJECTS(TOTAL) .....	151	194	250	150	112	96
ART .....	41	44	99	34	28	26
FOREIGN LANGUAGES .....	2	4	24	15	26	24
MUSIC .....	48	40	71	58	36	26
PHYSICAL & HEALTH EDUCATION .....	60	106	56	43	22	20
SECONDARY SCHOOL						
AGRICULTURE .....	...	...	37	38	30	28
ART .....	76	41	406	303	216	183
BUSINESS EDUCATION .....	162	138	527	482	201	178
DISTRIBUTIVE EDUCATION .....	...	...	56	48	10	8
ENGLISH LANGUAGE ARTS(TOTAL) .....	1,056	907	1,708	1,453	822	721
ENGLISH .....	1,013	876	1,373	1,182	656	605
JOURNALISM .....	...	...	18	17	2	...
SPEECH AND DRAMATIC ARTS .....	43	31	317	254	164	116
FOREIGN LANGUAGES(TOTAL) .....	399	313	393	385	298	232
FRENCH .....	239	188	93	147	111	71
GERMAN .....	27	25	81	64	85	72
LATIN .....	25	16	36	31	15	16
RUSSIAN .....	3	6	14	15	6	6
SPANISH .....	52	56	169	128	80	67
OTHER .....	53	22	...	...	1	...
HOME ECONOMICS .....	122	130	292	261	162	155
INDUSTRIAL ARTS .....	45	55	208	182	207	183
JUNIOR HIGH SCHOOL(GENERAL) .....	...	...	9	...	...	...
MATHEMATICS .....	361	333	598	494	316	282
MUSIC .....	126	118	363	286	255	242
PHYSICAL & HEALTH EDUCATION .....	318	287	712	528	425	352
NATURAL & PHYSICAL SCIENCES						
(TOTAL) .....	300	301	661	546	329	280
SUBJECT NOT SPECIFIED .....	75	44	8	10	...	...
GENERAL SCIENCE .....	36	55	112	103	93	73
BIOLOGY .....	148	155	399	329	162	143
CHEMISTRY .....	16	27	92	73	48	38
PHYSICS .....	25	20	50	31	21	26
SOCIAL STUDIES(TOTAL) .....	887	793	1,935	1,606	699	565
SUBJECT NOT SPECIFIED .....	210	198	493	430	236	177
HISTORY, GEOGRAPHY .....	598	543	962	844	371	323
ECONOMICS, SOCIOLOGY,						
PSYCHOLOGY .....	25	17	288	186	44	25
OTHER SOCIAL STUDIES .....	54	35	192	146	48	40
TRADE, INDUSTRY, TECHNOLOGY .....	8	15	134	111	...	...
OTHER SECONDARY SUBJECTS .....	7	...	196	132	32	12
SECONDARY-SCHOOL TOTAL .....	3,867	3,431	8,235	6,855	4,002	3,421
UNGRADED						
SPECIAL EDUCATION .....	138	133	629	631	205	180
LIBRARIAN .....	...	...	130	117	94	86
GUIDANCE COUNSELOR .....	56	25	146	126	51	43
SCHOOL PSYCHOLOGIST .....	...	...	14	12	...	...
SCHOOL SOCIAL WORKER .....	31	...	...	...	...	...
SCHOOL NURSE .....	...	...	...	...	...	...
OTHER UNGRADED .....	103	94	94	52	119	103

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	
	1969	1968	1969	1968	1969	1968
ELEMENTARY-SCHOOL TOTAL .....	1,463	1,202	2,302	2,144	631	586
REGULAR INSTRUCTION .....	1,461	1,198	2,255	2,103	614	585
SELECTED SUBJECTS(TOTAL) .....	2	4	47	41	17	1
ART .....	...	...	22	10	...	...
FOREIGN LANGUAGES .....	...	...	2	8	...	...
MUSIC .....	2	1	22	19	4	1
PHYSICAL & HEALTH EDUCATION .....	...	3	1	4	13	...
SECONDARY SCHOOL						
AGRICULTURE .....	69	53	40	42	16	14
ART .....	68	40	150	161	52	26
BUSINESS EDUCATION .....	431	289	225	215	87	81
DISTRIBUTIVE EDUCATION .....	...	...	9	6	12	7
ENGLISH LANGUAGE ARTS(TOTAL) .....	552	388	749	747	152	124
ENGLISH .....	432	326	629	633	149	120
JOURNALISM .....	13	...	2	1	...	...
SPEECH AND DRAMATIC ARTS .....	107	62	118	113	3	4
FOREIGN LANGUAGES(TOTAL) .....	74	31	197	200	51	49
FRENCH .....	30	15	84	90	22	24
GERMAN .....	4	2	11	9	8	8
LATIN .....	2	1	8	8	2	...
RUSSIAN .....	...	...	...	2	1	...
SPANISH .....	26	13	94	91	18	17
OTHER .....	12	...	...	...	...	...
HOME ECONOMICS .....	185	142	166	144	68	43
INDUSTRIAL ARTS .....	105	98	159	133	45	38
JUNIOR HIGH SCHOOL(GENERAL) .....	1	2	...	...	1	...
MATHEMATICS .....	193	112	251	237	77	54
MUSIC .....	172	122	206	220	15	23
PHYSICAL & HEALTH EDUCATION .....	444	386	599	551	150	103
NATURAL & PHYSICAL SCIENCES						
(TOTAL) .....	190	137	256	252	112	88
SUBJECT NOT SPECIFIED .....	5	9	1	...	7	3
GENERAL SCIENCE .....	38	47	19	21	26	30
BIOLOGY .....	126	66	197	199	66	44
CHEMISTRY .....	20	14	28	23	12	9
PHYSICS .....	1	1	11	9	1	2
SOCIAL STUDIES(TOTAL) .....	661	408	760	761	222	157
SUBJECT NOT SPECIFIED .....	440	292	373	405	113	101
HISTORY, GEOGRAPHY .....	148	103	286	279	92	52
ECONOMICS, SOCIOLOGY,						
PSYCHOLOGY .....	73	4	62	51	11	4
OTHER SOCIAL STUDIES .....	...	9	39	26	6	...
TRADE, INDUSTRY, TECHNOLOGY .....	80	89	...	...	18	...
OTHER SECONDARY SUBJECTS .....	2	1	35	28	1	...
SECONDARY-SCHOOL TOTAL .....	3,227	2,298	3,802	3,697	1,079	807
UNGRADED						
SPECIAL EDUCATION .....	92	88	159	124	39	26
LIBRARIAN .....	43	38	27	21	...	...
GUIDANCE COUNSELOR .....	39	44	186	131	23	19
SCHOOL PSYCHOLOGIST .....	37	28	1	...	...	...
SCHOOL SOCIAL WORKER .....	...	...	...	...	...	...
SCHOOL NURSE .....	20	17	2	2	...	...
OTHER UNGRADED .....	44	40	55	37	10	6

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	
	1969	1968	1969	1968	1969	1968
ELEMENTARY-SCHOOL TOTAL .....	1,561	1,394	175	101	426	359
REGULAR INSTRUCTION .....	1,532	1,345	175	101	421	358
SELECTED SUBJECTS(TOTAL) .....	29	49	...	...	5	1
ART .....	12	16	...	...	3	1
FOREIGN LANGUAGES .....	...	2	...	...	1	...
MUSIC .....	14	18	...	...	1	...
PHYSICAL & HEALTH EDUCATION .....	3	13	...	...	...	...
SECONDARY SCHOOL						
AGRICULTURE .....	34	24	...	5	26	23
ART .....	82	77	7	3	22	19
BUSINESS EDUCATION .....	221	179	19	10	34	31
DISTRIBUTIVE EDUCATION .....	...	6	...	...	...	...
ENGLISH LANGUAGE ARTS(TOTAL) .....	406	394	47	24	92	87
ENGLISH .....	322	313	40	23	92	87
JOURNALISM .....	12	6	1	1	...	...
SPEECH AND DRAMATIC ARTS .....	72	75	6	...	...	...
FOREIGN LANGUAGES(TOTAL) .....	94	74	17	7	37	25
FRENCH .....	26	23	6	3	29	23
GERMAN .....	19	16	3	2	1	...
LATIN .....	5	1	...	...	...	1
RUSSIAN .....	...	...	...	...	...	...
SPANISH .....	44	34	8	2	7	1
OTHER .....	...	...	...	...	...	...
HOME ECONOMICS .....	148	118	8	2	38	34
INDUSTRIAL ARTS .....	111	98	1	1	44	27
JUNIOR HIGH SCHOOL(GENERAL) .....	4	3	...	1	...	...
MATHEMATICS .....	172	160	7	2	52	34
MUSIC .....	117	110	3	3	22	22
PHYSICAL & HEALTH EDUCATION .....	337	265	37	32	64	56
NATURAL & PHYSICAL SCIENCES						
(TOTAL) .....	156	159	16	14	41	39
SUBJECT NOT SPECIFIED .....	24	16	...	...	...	...
GENERAL SCIENCE .....	12	20	...	1	20	24
BIOLOGY .....	85	89	13	12	20	15
CHEMISTRY .....	20	23	2	1	1	...
PHYSICS .....	15	11	1	...	...	...
SOCIAL STUDIES(TOTAL) .....	376	303	45	31	128	102
SUBJECT NOT SPECIFIED .....	105	79	15	10	84	72
HISTORY, GEOGRAPHY .....	205	179	25	15	43	30
ECONOMICS, SOCIOLOGY,						
PSYCHOLOGY .....	26	15	...	1	1	...
OTHER SOCIAL STUDIES .....	40	30	5	5	...	...
TRADE, INDUSTRY, TECHNOLOGY .....	2	...	...	1	...	...
OTHER SECONDARY SUBJECTS .....	6	4	12	7	...	...
SECONDARY-SCHOOL TOTAL .....	2,266	1,974	219	143	600	499
UNGRADED						
SPECIAL EDUCATION .....	48	50	13	11	...	...
LIBRARIAN .....	17	2	...	...	6	2
GUIDANCE COUNSELOR .....	56	45	10	4	40	29
SCHOOL PSYCHOLOGIST .....	...	...	...	...	...	...
SCHOOL SOCIAL WORKER .....	...	...	...	...	...	...
SCHOOL NURSE .....	...	...	...	...	...	...
OTHER UNGRADED .....	...	2	33	19	13	28

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	
	1969	1968	1969	1968	1969	1968
ELEMENTARY-SCHOOL TOTAL .....	3,085	2,971	436	433	14,647	9,897
REGULAR INSTRUCTION .....	3,052	2,941	431	375	14,369	9,645
SELECTED SUBJECTS(TOTAL) .....	33	30	5	58	278	252
ART .....	10	5	1	21	52	45
FOREIGN LANGUAGES .....	...	...	...	9	17	16
MUSIC .....	20	22	3	15	111	81
PHYSICAL & HEALTH EDUCATION .....	3	3	1	13	98	110
SECONDARY SCHOOL						
AGRICULTURE .....	5	1	10	14	15	35
ART .....	235	246	29	43	1,119	738
BUSINESS EDUCATION .....	244	265	84	68	722	396
DISTRIBUTIVE EDUCATION .....	20	3	3	3	73	48
ENGLISH LANGUAGE ARTS(TOTAL) .....	715	735	113	159	3,889	2,226
ENGLISH .....	631	664	99	141	3,310	1,830
JOURNALISM .....	...	...	2	2	...	...
SPEECH AND DRAMATIC ARTS .....	84	71	12	16	579	396
FOREIGN LANGUAGES(TOTAL) .....	328	315	32	57	1,566	960
FRENCH .....	150	143	3	9	753	428
GERMAN .....	15	24	...	...	84	60
LATIN .....	26	23	...	...	36	37
RUSSIAN .....	...	...	...	1	20	14
SPANISH .....	135	124	29	46	601	375
OTHER .....	2	1	1	1	72	46
HOME ECONOMICS .....	107	98	61	59	546	434
INDUSTRIAL ARTS .....	171	166	39	51	646	472
JUNIOR HIGH SCHOOL(GENERAL) .....	84	127	1	...	103	93
MATHEMATICS .....	379	369	30	23	1,532	985
MUSIC .....	187	167	37	30	521	353
PHYSICAL & HEALTH EDUCATION .....	399	389	170	158	997	685
NATURAL & PHYSICAL SCIENCES						
(TOTAL) .....	318	346	42	50	1,324	769
SUBJECT NOT SPECIFIED .....	192	249	1	...	773	96
GENERAL SCIENCE .....	39	46	5	16	71	78
BIOLOGY .....	81	46	29	26	344	413
CHEMISTRY .....	4	3	6	7	93	131
PHYSICS .....	2	2	1	1	43	51
SOCIAL STUDIES(TOTAL) .....	685	642	132	160	3,264	1,956
SUBJECT NOT SPECIFIED .....	539	507	51	91	2,917	1,669
HISTORY, GEOGRAPHY .....	127	113	72	112	243	203
ECONOMICS, SOCIOLOGY,						
PSYCHOLOGY .....	1	6	5	6	13	4
OTHER SOCIAL STUDIES .....	18	16	4	11	91	80
TRADE, INDUSTRY, TECHNOLOGY .....	...	...	9	2	120	87
OTHER SECONDARY SUBJECTS .....	24	...	109	22	48	52
SECONDARY-SCHOOL TOTAL .....	3,901	3,869	901	899	16,485	10,289
UNGRADED						
SPECIAL EDUCATION .....	390	348	22	19	1,340	900
LIBRARIAN .....	...	...	1	1	564	324
GUIDANCE COUNSELOR .....	104	71	43	55	773	447
SCHOOL PSYCHOLOGIST .....	6	...	...	...	407	128
SCHOOL SOCIAL WORKER .....	...	...	...	...	...	...
SCHOOL NURSE .....	64	80	...	...	32	103
OTHER UNGRADED .....	81	26	...	...	433	428



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	
	1969	1968	1969	1968	1969	1968
ELEMENTARY-SCHOOL TOTAL .....	2,276	2,102	554	512	5,983	5,495
REGULAR INSTRUCTION .....	2,276	2,102	548	496	5,957	5,472
SELECTED SUBJECTS(TOTAL) .....	...	...	6	16	26	23
ART .....	...	...	...	1	2	2
FOREIGN LANGUAGES .....	...	...	...	...	4	3
MUSIC .....	...	...	4	3	9	9
PHYSICAL & HEALTH EDUCATION .....	...	...	2	12	11	9
SECONDARY SCHOOL						
AGRICULTURE .....	28	27	18	13	54	56
ART .....	131	94	41	21	418	291
BUSINESS EDUCATION .....	394	320	180	130	449	517
DISTRIBUTIVE EDUCATION .....	3	2	4	4	20	51
ENGLISH LANGUAGE ARTS(TOTAL) .....	749	603	212	190	1,736	1,475
ENGLISH .....	718	575	183	164	1,447	1,259
JOURNALISM .....	...	...	...	...	2	2
SPEECH AND DRAMATIC ARTS .....	31	28	29	26	287	214
FOREIGN LANGUAGES(TOTAL) .....	239	180	21	20	550	490
FRENCH .....	101	72	8	9	212	184
GERMAN .....	3	...	8	5	76	64
LATIN .....	1	4	1	...	31	29
RUSSIAN .....	...	...	...	...	17	14
SPANISH .....	62	39	4	6	214	199
OTHER .....	72	65	...	...	...	...
HOME ECONOMICS .....	207	186	96	81	323	312
INDUSTRIAL ARTS .....	109	96	48	28	219	121
JUNIOR HIGH SCHOOL(GENERAL) .....	...	...	...	...	...	...
MATHEMATICS .....	358	285	106	98	517	437
MUSIC .....	212	187	63	46	384	368
PHYSICAL & HEALTH EDUCATION .....	528	489	283	200	756	669
NATURAL & PHYSICAL SCIENCES						
(TOTAL) .....	310	230	102	74	540	443
SUBJECT NOT SPECIFIED .....	45	49	3	6	24	21
GENERAL SCIENCE .....	37	11	14	8	98	89
BIOLOGY .....	167	145	63	49	356	300
CHEMISTRY .....	48	19	21	11	47	21
PHYSICS .....	13	6	1	...	15	12
SOCIAL STUDIES(TOTAL) .....	801	586	264	172	1,402	1,038
SUBJECT NOT SPECIFIED .....	469	331	144	76	505	398
HISTORY, GEOGRAPHY .....	284	193	68	67	684	502
ECONOMICS, SOCIOLOGY,						
PSYCHOLOGY .....	28	38	22	9	81	35
OTHER SOCIAL STUDIES .....	20	24	30	20	132	103
TRADE, INDUSTRY, TECHNOLOGY .....	25	17	...	...	24	21
OTHER SECONDARY SUBJECTS .....	...	...	...	...	...	...
SECONDARY-SCHOOL TOTAL .....	4,094	3,302	1,438	1,077	7,392	6,289
UNGRADED						
SPECIAL EDUCATION .....	131	73	67	45	377	265
LIBRARIAN .....	55	40	...	...	37	24
GUIDANCE COUNSELOR .....	166	168	...	...	67	57
SCHOOL PSYCHOLOGIST .....	...	...	...	...	7	8
SCHOOL SOCIAL WORKER .....	...	...	...	...	...	...
SCHOOL NURSE .....	...	...	...	...	23	26
OTHER UNGRADED .....	200	240	...	...	18	27

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	
	1969	1968	1969	1968	1969	1968
ELEMENTARY-SCHOOL TOTAL .....	1,806	1,655	1,491	1,341	5,886	5,611
REGULAR INSTRUCTION .....	1,705	1,571	1,487	1,318	5,783	5,479
SELECTED SUBJECTS(TOTAL) .....	101	84	4	23	103	132
ART .....	19	14	...	4	56	36
FOREIGN LANGUAGES .....	...	...	...	2	26	57
MUSIC .....	28	23	4	8	10	36
PHYSICAL & HEALTH EDUCATION ....	54	47	...	9	11	3
SECONDARY SCHOOL						
AGRICULTURE .....	75	68	9	68	21	22
ART .....	102	93	101	93	382	351
BUSINESS EDUCATION .....	342	328	81	71	454	407
DISTRIBUTIVE EDUCATION .....	12	25	...	3	28	30
ENGLISH LANGUAGE ARTS(TOTAL) .....	588	506	414	382	1,789	1,708
ENGLISH .....	441	365	329	306	1,719	1,656
JOURNALISM .....	11	8	12	7	...	...
SPEECH AND DRAMATIC ARTS .....	136	133	73	69	70	52
FOREIGN LANGUAGES(TOTAL) .....	62	50	138	147	773	752
FRENCH .....	20	8	46	43	315	300
GERMAN .....	1	4	26	28	111	88
LATIN .....	...	...	5	8	24	40
RUSSIAN .....	...	...	4	2	19	20
SPANISH .....	41	38	57	62	303	304
OTHER .....	...	...	...	4	1	...
HOME ECONOMICS .....	229	186	88	80	305	379
INDUSTRIAL ARTS .....	165	127	25	24	191	177
JUNIOR HIGH SCHOOL(GENERAL) .....	...	...	31	23	...	1
MATHEMATICS .....	218	254	102	99	1,099	967
MUSIC .....	153	198	96	67	423	366
PHYSICAL & HEALTH EDUCATION .....	417	299	311	228	733	679
NATURAL & PHYSICAL SCIENCES						
(TOTAL) .....	168	158	151	133	808	747
SUBJECT NOT SPECIFIED .....	79	98	18	7	63	75
GENERAL SCIENCE .....	19	16	20	24	99	95
BIOLOGY .....	59	36	87	72	471	420
CHEMISTRY .....	9	8	23	22	134	111
PHYSICS .....	2	...	3	8	41	46
SOCIAL STUDIES(TOTAL) .....	532	468	345	321	1,960	1,715
SUBJECT NOT SPECIFIED .....	389	347	327	299	1,009	1,710
HISTORY, GEOGRAPHY .....	132	120	16	18	858	5
ECONOMICS, SOCIOLOGY,						
PSYCHOLOGY .....	10	1	2	4	44	...
OTHER SOCIAL STUDIES .....	1	...	...	...	49	...
TRADE, INDUSTRY, TECHNOLOGY .....	30	27	10	11	11	10
OTHER SECONDARY SUBJECTS .....	26	37	...	3	19	20
SECONDARY-SCHOOL TOTAL .....	3,119	2,824	1,902	1,753	8,996	8,331
UNGRADED						
SPECIAL EDUCATION .....	145	201	53	114	723	504
LIBRARIAN .....	25	29	3	13	229	280
GUIDANCE COUNSELOR .....	101	192	60	43	428	352
SCHOOL PSYCHOLOGIST .....	2	14	...	...	17	18
SCHOOL SOCIAL WORKER .....	...	...	...	...	52	48
SCHOOL NURSE .....	...	...	...	...	111	154
OTHER UNGRADED .....	...	...	...	...	132	122

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	
	1969	1968	1969	1968	1969	1968
ELEMENTARY-SCHOOL TOTAL .....	564	487	798	759	789	709
REGULAR INSTRUCTION .....	524	463	796	748	765	687
SELECTED SUBJECTS(TOTAL) .....	40	24	2	11	24	22
ART .....	40	24	...	...	2	...
FOREIGN LANGUAGES .....	...	...	...	...	...	...
MUSIC .....	...	...	2	11	6	6
PHYSICAL & HEALTH EDUCATION .....	...	...	...	...	16	16
SECONDARY SCHOOL						
AGRICULTURE .....	5	7	26	32	21	...
ART .....	...	4	38	27	43	35
BUSINESS EDUCATION .....	64	66	10	2	139	99
DISTRIBUTIVE EDUCATION .....	...	...	10	2	...	...
ENGLISH LANGUAGE ARTS(TOTAL) .....	181	105	265	281	232	254
ENGLISH .....	181	105	250	263	195	207
JOURNALISM .....	...	...	...	...	2	...
SPEECH AND DRAMATIC ARTS .....	...	...	15	18	35	47
FOREIGN LANGUAGES(TOTAL) .....	65	54	74	55	47	52
FRENCH .....	50	32	51	34	11	10
GERMAN .....	1	4	2	2	14	21
LATIN .....	...	2	4	1	...	1
RUSSIAN .....	...	3	...	...	...	...
SPANISH .....	10	9	17	18	22	20
OTHER .....	4	4	...	...	...	...
HOME ECONOMICS .....	34	30	77	66	68	62
INDUSTRIAL ARTS .....	36	23	21	27	60	54
JUNIOR HIGH SCHOOL(GENERAL) .....	...	7	11	8	9	...
MATHEMATICS .....	75	48	107	112	128	101
MUSIC .....	23	9	83	55	94	75
PHYSICAL & HEALTH EDUCATION .....	38	22	175	142	192	191
NATURAL & PHYSICAL SCIENCES						
(TOTAL) .....	47	29	139	123	117	79
SUBJECT NOT SPECIFIED .....	...	...	12	8	16	1
GENERAL SCIENCE .....	8	11	15	12	13	12
BIOLOGY .....	35	17	94	88	75	53
CHEMISTRY .....	4	1	14	13	11	12
PHYSICS .....	...	...	4	2	2	1
SOCIAL STUDIES(TOTAL) .....	235	139	344	294	343	255
SUBJECT NOT SPECIFIED .....	5	3	136	149	89	73
HISTORY, GEOGRAPHY .....	152	99	163	111	158	109
ECONOMICS, SOCIOLOGY,						
PSYCHOLOGY .....	78	37	26	25	49	33
OTHER SOCIAL STUDIES .....	...	...	19	9	47	40
TRADE, INDUSTRY, TECHNOLOGY .....	...	...	...	...	12	14
OTHER SECONDARY SUBJECTS .....	...	...	1	7	...	...
SECONDARY-SCHOOL TOTAL .....	803	543	1,381	1,233	1,505	1,271
UNGRADED						
SPECIAL EDUCATION .....	39	11	1	1	28	23
LIBRARIAN .....	...	...	14	20	...	2
GUIDANCE COUNSELOR .....	...	...	11	7	20	20
SCHOOL PSYCHOLOGIST .....	...	...	...	...	...	...
SCHOOL SOCIAL WORKER .....	...	...	...	...	...	...
SCHOOL NURSE .....	...	3	...	...	...	...
OTHER UNGRADED .....	...	...	19	...	45	46

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	
	1969	1968	1969	1968	1969	1968
ELEMENTARY-SCHOOL TOTAL .....	1,816	1,563	6,435	5,602	1,102	1,038
REGULAR INSTRUCTION .....	1,816	1,563	5,559	4,971	1,102	1,038
SELECTED SUBJECTS(TOTAL) .....	...	...	876	631	...	...
ART .....	...	...	229	182	...	...
FOREIGN LANGUAGES .....	...	...	...	...	...	...
MUSIC .....	...	...	349	266	...	...
PHYSICAL & HEALTH EDUCATION .....	...	...	298	183	...	...
SECONDARY SCHOOL						
AGRICULTURE .....	15	6	236	192	12	11
ART .....	79	72	189	102	63	54
BUSINESS EDUCATION .....	303	264	719	530	142	112
DISTRIBUTIVE EDUCATION .....	...	...	...	...	16	9
ENGLISH LANGUAGE ARTS(TOTAL) .....	683	612	2,014	1,566	343	298
ENGLISH .....	623	572	1,542	1,286	258	221
JOURNALISM .....	...	...	84	51	3	3
SPEECH AND DRAMATIC ARTS .....	60	40	388	229	82	74
FOREIGN LANGUAGES(TOTAL) .....	124	108	589	420	155	120
FRENCH .....	46	32	122	104	48	38
GERMAN .....	...	3	36	30	30	31
LATIN .....	8	9	22	19	2	...
RUSSIAN .....	...	...	...	...	3	...
SPANISH .....	65	59	405	263	72	51
OTHER .....	5	5	4	4	...	...
HOME ECONOMICS .....	271	256	608	552	177	111
INDUSTRIAL ARTS .....	39	40	248	208	104	88
JUNIOR HIGH SCHOOL(GENERAL) .....	...	...	...	...	...	...
MATHEMATICS .....	202	176	591	481	69	55
MUSIC .....	232	158	229	186	72	61
PHYSICAL & HEALTH EDUCATION .....	530	444	761	638	236	196
NATURAL & PHYSICAL SCIENCES						
(TOTAL) .....	734	486	712	472	108	97
SUBJECT NOT SPECIFIED .....	308	153	172	106	24	12
GENERAL SCIENCE .....	58	53	...	...	14	11
BIOLOGY .....	256	213	419	285	58	63
CHEMISTRY .....	91	46	89	67	6	8
PHYSICS .....	21	21	32	14	6	3
SOCIAL STUDIES(TOTAL) .....	970	904	1,476	1,200	359	277
SUBJECT NOT SPECIFIED .....	109	72	344	270	8	8
HISTORY, GEOGRAPHY .....	555	505	928	773	177	147
ECONOMICS, SOCIOLOGY,						
PSYCHOLOGY .....	306	253	39	29	126	87
OTHER SOCIAL STUDIES .....	...	74	165	128	48	35
TRADE, INDUSTRY, TECHNOLOGY .....	5	3	...	...	3	2
OTHER SECONDARY SUBJECTS .....	20	41	56	66	1	15
SECONDARY-SCHOOL TOTAL .....	4,207	3,570	8,428	6,613	1,860	1,506
UNGRADED						
SPECIAL EDUCATION .....	33	46	345	316	23	65
LIBRARIAN .....	7	23	74	53	17	15
GUIDANCE COUNSELOR .....	6	24	60	112	8	39
SCHOOL PSYCHOLOGIST .....	...	...	...	...	4	12
SCHOOL SOCIAL WORKER .....	...	...	...	...	...	3
SCHOOL NURSE .....	...	...	...	...	...	...
OTHER UNGRADED .....	13	...	...	...	4	10



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	
	1969	1968	1969	1968	1969	1968
ELEMENTARY-SCHOOL TOTAL .....	279	236	1,433	1,370	1,526	1,649
REGULAR INSTRUCTION .....	271	235	1,416	1,357	1,267	1,370
SELECTED SUBJECTS(TOTAL) .....	8	1	17	13	259	279
ART .....	5	1	2	2	92	91
FOREIGN LANGUAGES .....	3	...	10	8	53	64
MUSIC .....	...	...	2	2	76	81
PHYSICAL & HEALTH EDUCATION .....	...	...	3	1	38	43
SECONDARY SCHOOL						
AGRICULTURE .....	3	6	29	31	5	15
ART .....	4	8	119	103	145	125
BUSINESS EDUCATION .....	29	16	168	157	125	107
DISTRIBUTIVE EDUCATION .....	...	6	31	27	10	7
ENGLISH LANGUAGE ARTS(TOTAL) .....	78	71	433	321	605	518
ENGLISH .....	77	70	409	299	502	411
JOURNALISM .....	...	...	2	2	6	6
SPEECH AND DRAMATIC ARTS .....	1	1	22	20	97	101
FOREIGN LANGUAGES(TOTAL) .....	26	18	173	122	189	181
FRENCH .....	18	10	75	48	60	72
GERMAN .....	...	1	12	10	20	23
LATIN .....	5	1	6	10	11	12
RUSSIAN .....	...	...	...	...	4	1
SPANISH .....	3	6	76	50	56	71
OTHER .....	...	...	4	4	38	2
HOME ECONOMICS .....	14	16	133	108	170	188
INDUSTRIAL ARTS .....	...	...	67	47	58	58
JUNIOR HIGH SCHOOL(GENERAL) .....	8	2	17	17	...	...
MATHEMATICS .....	42	20	194	147	125	117
MUSIC .....	6	4	143	98	114	94
PHYSICAL & HEALTH EDUCATION .....	5	12	243	199	328	295
NATURAL & PHYSICAL SCIENCES						
(TOTAL) .....	33	59	215	190	207	174
SUBJECT NOT SPECIFIED .....	7	12	3	12	50	28
GENERAL SCIENCE .....	6	25	44	45	7	12
BIOLOGY .....	16	14	137	105	108	94
CHEMISTRY .....	1	8	26	21	36	32
PHYSICS .....	3	...	5	7	6	8
SOCIAL STUDIES(TOTAL) .....	91	84	483	382	594	507
SUBJECT NOT SPECIFIED .....	40	34	138	93	161	82
HISTORY, GEOGRAPHY .....	48	38	271	236	273	274
ECONOMICS, SOCIOLOGY,						
PSYCHOLOGY .....	2	11	32	18	94	77
OTHER SOCIAL STUDIES .....	1	1	42	35	66	74
TRADE, INDUSTRY, TECHNOLOGY .....	...	...	3	8	19	16
OTHER SECONDARY SUBJECTS .....	...	...	72	45	...	...
SECONDARY-SCHOOL TOTAL .....	339	322	2,523	2,002	2,694	2,402
UNGRADED						
SPECIAL EDUCATION .....	8	12	100	55	67	55
LIBRARIAN .....	...	1	54	38	5	2
GUIDANCE COUNSELOR .....	...	...	130	116	...	...
SCHOOL PSYCHOLOGIST .....	...	...	...	...	...	3
SCHOOL SOCIAL WORKER .....	...	...	...	...	...	13
SCHOOL NURSE .....	...	...	1	1	15	19
OTHER UNGRADED .....	...	...	66	61	307	283

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	
	1969	1968	1969	1968	1969	1968
ELEMENTARY-SCHOOL TOTAL .....	796	747	2,615	2,202	139	118
REGULAR INSTRUCTION .....	796	744	2,520	2,077	139	118
SELECTED SUBJECTS(TOTAL) .....	...	3	95	125	...	...
ART .....	...	...	24	56	...	...
FOREIGN LANGUAGES .....	...	...	15	10	...	...
MUSIC .....	...	2	23	26	...	...
PHYSICAL & HEALTH EDUCATION .....	...	1	33	33	...	...
SECONDARY SCHOOL						
AGRICULTURE .....	18	14	89	58	17	4
ART .....	64	59	241	186	21	17
BUSINESS EDUCATION .....	120	121	130	140	13	10
DISTRIBUTIVE EDUCATION .....	6	7	1	1	5	1
ENGLISH LANGUAGE ARTS(TOTAL) .....	349	316	836	600	55	46
ENGLISH .....	256	253	690	497	45	39
JOURNALISM .....	21	6	8	3	...	...
SPEECH AND DRAMATIC ARTS .....	72	57	138	100	10	7
FOREIGN LANGUAGES(TOTAL) .....	71	71	314	229	17	13
FRENCH .....	43	28	130	93	2	7
GERMAN .....	3	3	37	31	3	...
LATIN .....	8	5	18	15	...	2
RUSSIAN .....	...	...	8	4	1	...
SPANISH .....	17	20	120	83	11	4
OTHER .....	...	15	1	3	...	...
HOME ECONOMICS .....	142	113	218	222	22	16
INDUSTRIAL ARTS .....	61	64	265	251	21	13
JUNIOR HIGH SCHOOL(GENERAL) .....	...	...	7	9	12	5
MATHEMATICS .....	92	114	282	214	23	24
MUSIC .....	116	103	216	165	12	10
PHYSICAL & HEALTH EDUCATION .....	340	323	396	245	41	39
NATURAL & PHYSICAL SCIENCES						
(TOTAL) .....	154	174	319	242	35	26
SUBJECT NOT SPECIFIED .....	7	2	21	10	...	...
GENERAL SCIENCE .....	5	20	39	40	5	...
BIOLOGY .....	115	130	187	127	27	23
CHEMISTRY .....	14	5	50	46	2	2
PHYSICS .....	13	17	22	19	1	1
SOCIAL STUDIES(TOTAL) .....	406	363	737	564	38	31
SUBJECT NOT SPECIFIED .....	406	363	98	112	38	31
HISTORY, GEOGRAPHY .....	...	...	446	349	...	...
ECONOMICS, SOCIOLOGY,						
PSYCHOLOGY .....	...	...	66	43	...	...
OTHER SOCIAL STUDIES .....	...	...	127	60	...	...
TRADE, INDUSTRY, TECHNOLOGY .....	...	...	12	8	...	...
OTHER SECONDARY SUBJECTS .....	...	4	52	24	...	...
SECONDARY-SCHOOL TOTAL .....	1,939	1,846	4,115	3,158	332	255
UNGRADED						
SPECIAL EDUCATION .....	56	36	174	219	15	9
LIBRARIAN .....	35	44	57	38	...	...
GUIDANCE COUNSELOR .....	...	...	48	27	...	...
SCHOOL PSYCHOLOGIST .....	...	...	7	4	...	...
SCHOOL SOCIAL WORKER .....	...	...	2	2	...	...
SCHOOL NURSE .....	...	...	...	...	...	...
OTHER UNGRADED .....	...	...	32	45	...	...

TABLE B.—LOW, MEDIAN, HIGH, AND MEAN PERCENTS OF TEACHERS WHO WERE  
NEW IN 17 STATES AND DISTRICT OF COLUMBIA, 1968-69

Assignment	Low	Median	High	Mean	Number of states reporting
1	2	3	4	5	6
<b>Elementary</b>					
Regular instruction .....	5.0%	11.0%	20.0%	10.2%	18
Art .....	6.2	15.2	43.3	15.9	12
Foreign languages .....	0.0	33.3	100.0	22.7	9
Music .....	2.6	14.0	34.3	10.8	13
Physical and health education .....	3.8	15.5	31.4	14.8	13
Special education .....	4.2	12.5	20.8	11.0	17
<b>Secondary</b>					
Agriculture .....	4.7	8.2	21.4	6.9	16
Art .....	4.3	20.0	32.0	16.9	18
Business education .....	7.4	11.2	18.8	12.1	18
Distributive education .....	0.0	11.3	42.9	8.0	13
English language arts .....	9.2	15.8	27.7	14.1	18
Foreign languages .....	7.4	14.7	45.0	14.3	18
Home economics .....	5.0	11.8	26.7	12.4	18
Industrial arts .....	1.3	11.4	24.4	11.1	18
Junior high school .....	8.7	9.9	21.7	10.6	7
Mathematics .....	9.1	13.2	27.5	12.2	18
Music .....	1.0	12.3	19.8	10.5	17
Physical and health education .....	6.0	11.6	22.0	12.0	17
Men .....	5.5	11.0	15.1	11.1	8
Women .....	1.6	17.4	31.6	19.5	8
Natural and physical sciences .....	7.7	13.3	24.3	12.8	18
Social studies .....	8.2	13.3	20.9	12.8	18
Trade, industrial, vocational, technical .....	4.3	11.7	43.3	12.4	18
Special education .....	2.4	15.7	40.0	9.6	17
Other secondary subjects .....	0.0	8.0	21.7	10.5	15
<b>Librarian</b>					
Elementary .....	2.1	7.4	21.9	6.5	15
Secondary .....	1.4	5.9	13.3	5.5	17
<b>Guidance counselor</b>					
Elementary .....	0.0	4.2	17.6	8.0	11
Secondary .....	0.0	4.0	14.0	3.9	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 20 STATES, 1968-69

Assignment	Low	Median	High	Mean	Number of states reporting
1	2	3	4	5	6
<b>Elementary</b>					
Regular instruction .....	9.5%	28.7%	72.9%	36.6%	20
Art .....	0.0	22.8	84.2	27.1	12
Foreign languages .....	0.0	36.6	100.0	44.4	8
Music .....	13.2	27.9	66.0	37.5	15
Physical and health education .....	5.6	27.0	100.0	23.7	14
Special education .....	0.0	38.9	76.9	38.1	19
<b>Secondary</b>					
Agriculture .....	0.0	17.4	94.9	35.8	13
Art .....	0.0	19.2	100.0	21.7	20
Business education .....	0.0	17.1	59.3	25.3	20
Distributive education .....	0.0	25.0	62.5	24.0	14
English language arts .....	0.0	19.3	54.9	25.9	20
Foreign languages .....	0.0	17.2	52.2	21.1	20
Home economics .....	0.0	26.5	59.5	31.9	19
Industrial arts .....	0.0	14.8	100.0	22.1	18
Junior high school .....	0.0	16.0	76.7	21.7	12
Mathematics .....	0.0	22.2	51.6	23.7	20
Music .....	0.0	21.6	100.0	24.9	19
Physical and health education .....	0.0	16.1	56.1	20.5	19
Men .....	6.9	14.3	44.6	16.3	13
Women .....	4.8	20.0	78.8	22.2	13
Natural and physical sciences .....	0.0	21.6	57.7	23.4	20
Social studies .....	0.0	16.9	49.0	18.6	20
Trade, industrial, vocational, technical .....	0.0	26.7	100.0	20.3	17
Special education .....	0.0	30.0	100.0	36.4	19
Other secondary subjects .....	6.7	33.3	86.2	34.6	16
<b>Librarian</b>					
Elementary .....	0.0	33.3	100.0	41.1	15
Secondary .....	11.1	35.2	100.0	41.4	19
<b>Guidance counselor</b>					
Elementary .....	10.0	58.4	83.3	58.6	11
Secondary .....	6.9	60.0	100.0	58.3	19



TABLE D.--RESPONSES TO THE SPECIAL SURVEY OF TEACHER SUPPLY AND DEMAND IN SUMMER 1969, BY STATE

State	Number of qualified teacher applicants compared with vacancies in fall 1969				Supply and demand conditions in fall 1969 compared with 1968				
	Substan- tial shortage	Some short- age	Suffi- cient ap- plicants to fill positions	Shortage in some subjects	Some excess	More acute	About same	Less acute	Much less acute
	2	3	4	5	6	7	8	9	10
Alabama .....		X						X	
Alaska .....					X			X	
Arizona .....				X				X	
Arkansas .....				X			X		
California .....					X			X	
Colorado .....				X				X	
Connecticut .....	X						X		
Delaware .....	(Information not available)								
Florida .....				X				X	
Georgia .....				X			X		
Hawaii .....				X				X	
Idaho .....		X			(Information not available)				
Illinois .....		X						X	
Indiana .....				X				X	
Iowa .....	X							X	
Kansas .....				X			X		
Kentucky .....				X					X
Louisiana .....				X			X		
Maine .....				X				X	
Maryland .....				X			X		
Massachusetts .....				X				X	
Michigan .....			X						X
Minnesota .....		X					X		
Mississippi .....				X				X	
Missouri .....		X					X		
Montana .....				X				X	
Nebraska .....				X			X		
Nevada .....				X			X		
New Hampshire .....		X						X	
New Jersey .....				X			X		
New Mexico .....				X			X		
New York .....				X					X
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					X		
South Dakota .....		X						X	
Tennessee .....				X			X		
Texas .....				X	(Information not available)				
Utah .....				X				X	
Vermont .....				X				X	
Virginia .....				X				X	
Washington .....				X				X	
West Virginia .....				X				X	
Wisconsin .....				X				X	
Wyoming .....				X			X		
Total number of states ..	2	12	1	32	2	0	18	26	3

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

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