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ABSTRACT

This is the report of a survey of the patterns of supply and demand of educational personnel in the United States in 1973. Current trends for the different levels and specializations of educational practices, including pupil personnel services, are tabulated as to current needs (charts are included in the text). There are also comparisons of current trends to the trends of 1972 and geographic breakdowns of results, though states are not listed individually as to needs. It is reported that fields once in great need of personnel are beginning to balance out. (JA)

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## STAFFING PATTERNS IN AMERICAN EDUCATION, 1973

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In the review of staffing patterns in education in the United States it has become clear that two of the most valuable indicators of supply are the attrition in educational institutions of teaching personnel and the growth patterns of institutional enrollment.

In this study of the supply and demand of educational personnel the individual State Certification and/or Placement Officers were contacted for their evaluation of projected needs and oversupplies of personnel in their State. These people are aware of their State's need for educational personnel in terms of the attrition rate and enrollment pattern, and the supply of certified individuals to fill the demand.

The imbalance of the supply and demand of educational personnel in many areas in the past four years has fluctuated from gross oversupplies in some areas such as social studies to acute shortages in other areas such as special education personnel and vocational-technical instructors.

With this third annual supply and demand study it has become apparent that while there are oversupplies and shortages remaining in some areas, other fields once in great need of personnel are beginning to balance out. Some of the possible rationales underlying this trend that emerge from discussions with certification officials include:

- Better communication between state offices concerned with educational personnel and the state colleges and universities supplying newly qualified people.

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- More indepth counseling and stringent entrance requirements for potential teaching majors in colleges of education producing instructional personnel in overstaffed and shortage areas.
- Alternate methods of coping with shortage areas such as the placement of handicapped children in regular classrooms, thus easing the demand for more special education teachers.
- More realistic assessment of positions that could be filled. For example, the need for elementary counselors may not be quite so distinctly emphasized as in past studies due to the reality of funding shortages in what may be considered by some to be expendable areas.

## I. FINDINGS OF THE SURVEY

Fifty-one State Certification and Placement Officers were contacted. All responded to the request for information. However, three States, California, Michigan and Vermont could not provide the specific input necessary. It should additionally be noted here that not all States responded in every subject area; certification in specific areas still varies somewhat from State to State, and responses were tempered by those areas certified by the particular State. If a State did not certify personnel in a specific, listed staffing area, often the State did not respond to the question concerning that specific staffing need.

Major trends indicated by the current survey include the following findings.

Elementary teachers in the lower grades, 1-3, are not staffed as adequately as the 1972 survey would indicate. Twenty States indicated an adequate supply of personnel. while 14 States registered a need, and 30% indicated an oversupply. The 1972 survey, The 1972 Education Staffing Patterns Update reflected an oversupply of elementary teachers in 75 percent of the States. The upper grades, 4-6, reflected similar staffing patterns in this survey: 17 States registered an adequate supply of personnel, 18 States indicated a need; and 30 percent of the States registered oversupplies.

The trend continues toward increasing the number of early childhood, preschool, and elementary teachers. Twenty-eight States saw the need for

more personnel; 15 registered an adequate supply, while 5 States indicated an oversupply.

Elementary reading, still seen as a national priority, was reflected at the State and local level by a continued shortage of personnel by 24 States, while 4 States view an oversupply and 18 reflect an adequate supply.

At the secondary level, sufficient supplies of personnel (with a few shortages) are reported in the following areas: art, foreign languages, health/physical education, home economics, music, and science. Not one State indicated a need for more social studies teachers (80% of the States reflected an oversupply).

Industrial arts and vocational-technical education instructors remain in short supply; 30 States reflected shortages of industrial arts personnel while 18 indicated no increased need. In vocational-technical education only 13 States registered an adequate supply of instructors while 33 States voiced a need for more personnel in this field. The continuing, growing need for individuals in these areas could be evidence of national interest shown in the demand for more human services personnel.

Secondary reading and mathematics instructors are also in short supply, reflecting the continued shortage of qualified teachers in those fields. Fifty percent of the States registered needs for more instructors in mathematics (44% of the States indicated an adequate supply) while 52 percent of the States evidenced a trend toward needing more, qualified, reading personnel.

Environmental education is not certifiable in a majority of the States. However, in those States certifying teachers in this field, environmental education is still not sufficiently staffed. The survey indicates a need for more personnel in 13 States; the 1972 survey reflected a need for such personnel in 11 States.

A continued sensitivity toward students from homes where the dominant language is not English is reflected in the demand for more bilingual classroom personnel on a regional basis (65% of the States located mainly in the southwest indicated a shortage of personnel; 39% of the States in other regions

averaged such needs). The need for ethnic studies personnel was voiced by 15 percent of the States indicating continued concern for responsive education in this area.

A balance in the supply and demand for instructional support personnel is emerging. A sufficient supply of librarians was registered by 27 States (17 indicated a general need, 1 State voiced an oversupply). Library aides and teacher aides are in adequate supply in 32 and 34 States, respectively, with few indicating a surplus of such personnel. Technicians in the school setting are less evenly balance with 13 States projecting the need for more; 22 States indicated an adequate supply of personnel.

While career and adult education continue to receive publicity at the federal level, the State and local agencies seem to place more emphasis on less innovative curricula, reflective, in large measure, of funding limitations and adequate staffing: 63 percent of the States indicated sufficient supplies of adult educators while only 13 percent of the States indicated shortages of such personnel. The States indicated a need for career education personnel in 38% of the States; adequate supplied of career educators registered in 30% of the States. It is interesting to note that only 60% of the States surveyed responded to this instructional area.

#### Special Education

While selected States have responded to the need for special education personnel by encouraging, when appropriate, handicapped children to remain in regular classrooms, still severe shortages are registered by a majority of the the States (33). Some national sources, on the other hand, have indicated an oversupply of newly trained personnel. There is a discrepancy between the projected trends of the States, and the actual supply of special education teachers. Several of the State Certification Officers did indicate, however, that this would be the last year for such overriding shortages due to the changes at the State level in providing educational opportunities to handicapped children. With the hope of providing some clarification toward this imbalance, the following 33 States have indicated a projected general need for special education personnel:

Alabama	Louisiana	North Dakota	West Virginia
Alaska	Maine	Ohio	Wisconsin
Arizona	Missouri (rural)	Oregon	Wyoming
Arkansas	Montana	Pennsylvania	
Delaware	Nebraska	South Carolina	
D.C.	Nevada (rural)	South Dakota (urban)	
Florida	New Hampshire	Tennessee	
Georgia	New Jersey	Texas	
Idaho	New York	Utah	
Illinois	North Carolina	Virginia	

These States are not indicating specific openings, but are registering a trend in the States' projected staffing patterns.

#### Pupil Personnel Services

The need for guidance counselors at both the secondary and elementary levels seem to be easing off from the projected trends indicated by earlier studies. Four States registered an oversupply of elementary counselor candidates and 20 States indicated a shortage; 18 States viewed their staffing supply as adequate. The 1972 staffing survey reflected the need in eighteen States for elementary counselors. Out of 48 States providing usable data for the survey, 6 did not react to the question on elementary counseling in their State.

Secondary counseling in addition to being more widely recognized than elementary counseling is also more adequately staffed. In fact, 24 States indicated that they had adequate supplies. The 1972 staffing survey indicated a shortage of personnel in 12 States against 11 States, indicating a shortage in 1973.

The demand for school psychologists remains about the same as previous studies. Thirty percent of the States registered projected shortages while 50 percent of the States indicated an adequate supply. Together with 5 percent of the States indicating an oversupply, 85 percent of the responding States recognized the position in their State's educational system.



### Administrative Personnel

With regard to administrative positions there seems to be an overly sufficient supply of superintendents, principals, and assistant principals across the board with the following figures indicating oversupplies:

Superintendents - 19%

Principals - 23%

Vice Principals - 25%

Appendix A reflects the full tabulation of the questionnaire by number and percent of responding states.

### II. REGIONAL STAFFING TRENDS

It would appear on a regional basis that the majority of the oversupply situations in specific instructional areas occurs most often in the west and southwestern States. A random sample of the oversupply situation regionally is reflected in Figure 1.

Region	% of Oversupply of Instructional Areas						
	Instructional Area	Grades 1-3	Mathematics	Reading	Vocational Technical Education	Special Education	Adult Education
West, Southwest		50%	8%	8%	8%	8%	15%
Southeast		9%	0%	9%	0	0	0
Great Lakes and Plains		28%	9%	0	0	0	0
North Atlantic		28%	0	0	0	0	0

FIGURE 1: SAMPLE OF OVERSUPPLY STAFFING PATTERNS ON A REGIONAL BASIS IN SELECTED INSTRUCTIONAL AREAS

As mentioned previously, bilingual teachers are in the greatest demand in the Southwest Region (65% of the States) with the Great Lakes and Plains Region indicating a need in 55 percent of the States. An oversupply was indicated only in the Southwest Region and then by 8 percent of the States.

Regionally it would appear that the Great Lakes States have indicated growth patterns in career education as greatly exceeding that of the other three regions. Fifty-five percent of the States saw the need for more personnel in this area while 37 percent of the North Atlantic States, indicated a shortage of personnel and 42 percent of the Southwest States and 15 percent of the West and Southwest States indicated growth patterns in career education.

Appendix B gives a total summary of the regional staffing patterns in American education by instructional area.

### III. INSTRUCTIONAL STAFFING NEEDS IN RURAL LOCATIONS

Specific needs for instructional personnel most often centered themselves in the 1973 Staffing Survey in rural areas. One certification officer summed up the rural staffing situation: "Many of the recent college graduates do not have positions, but in many cases they will not consider rural isolated areas...where the shortages still exist." The States, by specific staffing area, indicating a need for education personnel in rural areas are reflected in Figure 2.



		Instructional Staffing Needs in Rural Locations by State														
<u>INSTRUCTIONAL</u>		Alabama	Oklahoma	Colorado	Florida	Idaho	Kansas	Mississippi	Missouri	Nevada	New Jersey	Ohio	South Carolina	Texas	Utah	West Virginia
<u>Preschool Elementary</u>																
Early Childhood, Preschool, Kindergarten						X		X				X		X		
Elementary, Grades 1-3		X				X			X					X		
Elementary, Grades 4-6		X							X			X		X		
Elementary Reading			X							X				X		
<u>Secondary</u>																
Art		X														
Foreign Language		X														
Health/Physical Education												X				
Home Economics																
Industrial Arts												X			X	
Mathematics		X											X			X
Music		X	X												X	X
Reading				X												
Science		X				X	X								X	X
Social Studies																
Vocational - Technical										X						
<u>Special Instructional Areas</u>																
Special Education			X						X	X						
Bilingual Education		X		X	X						X					
Environmental Education																
Ethnic Studies																
Adult Education																
Career Education																

FIGURE 2: INSTRUCTIONAL STAFFING NEEDS IN RURAL LOCATIONS BY STATE

#### IV. COMPARISON OF 1972 AND 1973 STAFFING SURVEYS IN SELECTED INSTRUCTIONAL FIELDS

The following comparison of selected instruction areas (Figure 3) reflects the overall fact that a balance between the supply and demand for personnel in these heretofore acutely understaffed areas (excluding social studies) is slow in the achievement.

The balancing in the supply and demand of educational personnel cannot be accomplished in one year, but will show small growth from year to year. While there are hopeful signs of attaining a workable balance in some areas, however, other areas continue to reflect large undersupplies from 1972 to 1973. The Staffing Patterns in American Education 1973 survey compared with the 1972 Education Staffing Patterns Update reflects the continuing undersupply of early childhood teachers, elementary reading teachers, industrial arts and vocational-technical teachers; and special education instructors. These areas (with the exception of special education as explained previously) are likely to remain short supplied for several years to come.

Instructional Area	Status of Staffing						
	TOTAL STATES	Needed 1972, General Need, 1973		Needed 1972, Do Not Need, 1973		Did Not Need 1972, No Response, 1973	
	%	%	%	%	%	%	%
Early Childhood, Preschool Kindergarten	51 100%	16 32%	8 16%	10 20%	12 24%	4 8%	1 2%
Elementary Reading	51 100%	10 20%	6 12%	14 28%	16 32%	1 2%	4 8%
Industrial Arts	51 100%	21 42%	7 14%	9 18%	11 22%	1 2%	2 4%
Vocational-Technical Education	51 100%	20 40%	6 12%	13 26%	8 16%	4 8%	0
Social Studies	51 100%	0	0	0	48 95%	0	3 6%
Special Education	51 100%	16 32%	1 2%	21 42%	10 20%	1 2%	2 4%

FIGURE 3: NUMBER AND PERCENT OF STATE EDUCATION STAFFING NEEDS IN 1972 AND 1973 BY SELECTED INSTRUCTIONAL AREA

APPENDIX A

Number and Percent of Staffing Areas by Personnel Needs Indicated by State Certification Officers (or their Representatives)

STAFFING AREA		STATE EDUCATIONAL STAFFING PATTERNS											
		Total States Responding	Adequate Supply of Personnel	Projected Personnel Needs							Over Supply of Personnel	States Not Responding	
				Total States With Need	General Need	Male Only	Female Only	Rural Only	Urban Only	Suburban Only			
<b>INSTRUCTIONAL</b>													
<b>PRESCHOOL ELEMENTARY</b>													
Early Childhood, Preschool, Kindergarten	n	48	15	28	23	0	1	4	0	0	5	0	
	%	100	32	59	48	0	02	09	0	0	11	0	
Elementary, Grades 1-3	n	48	20	14	0	4	0	4	0	0	14	0	
	%	100	42	30	13	09	0	09	0	0	30	0	
Elementary, Grades 4-6	n	48	17	18	7	7	0	4	0	0	14	0	
	%	100	38	38	15	15	0	09	0	0	30	0	
Elementary Reading	n	46	18	24	21	0	0	3	3	0	4	2	
	%	96	39	50	44	0	0	7	0	0	09	5	
<b>SECONDARY</b>													
Art	n	47	36	3	2	0	0	1	0	0	8	1	
	%	98	75	7	5	0	0	2	0	0	17	2	
Foreign Language	n	47	28	7	6	0	0	1	0	0	12	1	
	%	98	59	15	13	0	0	2	0	0	25	2	
Health/Physical Education	n	48	18	6	2	0	0	1	0	0	24	0	
	%	100	38	13	5	0	0	2	0	0	50	0	
Home Economics	n	47	33	4	4	0	0	0	0	0	10	1	
	%	98	69	9	9	0	0	0	0	0	21	2	
Industrial Arts	n	48	18	30	27	2	0	1	0	0	0	0	
	%	100	38	63	57	5	0	2	0	0	0	0	
Mathematics	n	47	21	24	21	0	0	3	0	0	2	1	
	%	98	44	50	44	0	0	7	0	0	5	2	
Music	n	47	26	14	10	0	0	4	0	0	5	1	
	%	98	59	30	21	0	0	9	0	0	5	2	
Reading	n	46	19	25	24	0	0	1	0	0	2	2	
	%	96	40	52	50	0	0	2	0	0	5	5	
Science	n	45	20	19	15	0	0	4	0	0	0	3	
	%	94	42	40	32	0	0	9	0	0	13	7	
Social Studies	n	48	10	0	0	0	0	0	0	0	38	0	
	%	100	21	0	0	0	0	0	0	0	80	0	
Vocational - Technical	n	47	13	33	29	2	0	1	1	0	1	1	
	%	98	27	69	61	5	0	2	2	0	2	2	
<b>SPECIAL INSTRUCTIONAL AREAS</b>													
Special Education	n	48	9	38	35	0	0	2	1	0	1	0	
	%	100	19	80	73	0	0	5	2	0	2	0	
Bilingual Education	n	40	14	25	14	0	0	5	5	1	1	8	
	%	84	30	52	30	0	0	11	11	2	2	17	
Environmental Education	n	37	23	13	12	0	0	0	1	0	1	11	
	%	77	48	27	25	0	0	0	2	0	2	23	
Ethnic Studies	n	33	25	7	6	0	0	0	1	0	1	15	
	%	69	52	15	13	0	0	0	2	0	2	32	
Adult Education	n	38	30	6	6	0	0	0	0	0	2	10	
	%	80	63	13	13	0	0	0	0	0	5	21	
Career Education	n	33	14	18	15	0	0	0	1	0	1	15	
	%	69	30	38	34	0	0	0	2	0	2	32	

APPENDIX A (Continued)

Number and Percent of Staffing Areas by Personnel Needs Indicated by State Certification Officers (or their Representatives)

STAFFING AREA	STATE EDUCATIONAL STAFFING PATTERNS										
	Total States Responding	Adequate Supply of Personnel	Projected Personnel Needs						Over Supply of Personnel	States Not Responding	
			Total States With Need	General Need	Male Only	Female Only	Rural Only	Urban Only			Suburban Only
<b>INSTRUCTIONAL SUPPORT</b>											
Librarians	n 45	27	17	14	0	0	2	1	0	1	3
	% 94	57	36	30	0	0	5	2	0	2	7
Library Aides	n 39	32	4	4	0	0	0	0	0	3	9
	% 82	67	9	5	0	0	0	0	0	7	19
Teacher Aides	n 41	34	3	3	0	0	0	0	0	4	7
	% 86	71	7	7	0	0	0	0	0	9	15
Technicians (e. g., media specialists)	n 43	22	13	10	0	0	3	0	0	2	5
	% 90	46	27	21	0	0	7	0	0	5	11
<b>PUPIL PERSONNEL SERVICE</b>											
<b>COUNSELORS</b>											
Elementary	n 42	18	20	17	0	1	1	0	1	4	6
	% 88	38	42	36	0	2	2	0	2	9	13
Secondary	n 44	24	11	7	1	1	1	1	0	9	4
	% 92	50	23	15	2	2	2	2	0	19	9
Adult Education	n 27	19	5	4	0	0	1	0	0	3	11
	% 57	40	11	4	0	0	2	0	0	7	23
Psychologists	n 64	24	14	14	0	0	0	0	0	2	8
	% 84	50	30	30	0	0	0	0	0	5	17
Psychometrists	n 34	22	11	11	0	0	0	0	0	1	14
	% 71	46	23	23	0	0	0	0	0	2	30
Social Workers	n 37	27	8	8	0	0	0	0	0	2	11
	% 77	57	17	7	0	0	0	0	0	5	23
Nurses	n 33	24	5	3	0	0	2	0	0	4	15
	% 69	50	11	7	0	0	5	0	0	9	22
Diagnostic Prescriptive Specialists											
<b>ADMINISTRATIVE</b>											
Superintendents	n 42	32	1	1	0	0	0	0	0	9	6
	% 0	0	2	2	0	0	0	0	0	19	13
Principals	n 43	29	3	2	1	0	0	0	0	11	5
	% 0	0	7	5	2	0	0	0	0	23	11
Assistant Principals	n 40	27	1	1	0	0	0	0	0	12	8
	% 0	0	2	2	0	0	0	0	0	25	17

Note: Entries for California, Michigan, and Vermont are not included in this table. Therefore 48 states = 100% Responding States.  
 Note: Because of rounding some tables may add up to more than 100%.

APPENDIX B

Percentages of Educational Staffing Patterns by Subject Area by Region  
 (Note: California, Michigan and Vermont could not release the requested information)  
 Total States = 48

INSTRUCTIONAL AREAS	North Atlantic 11 States = 100%			Great Lakes and Plains 11 States = 100%			Southeast 12 States = 100%			West, Southwest, Outlying Areas 14 States = 100%		
	Adequate	General Need	Oversupply	Adequate Supply	General Need	Oversupply	Adequate Supply	General Need	Oversupply	Adequate Supply	General Need	Oversupply
<b>Preschool Elementary</b>												
Early Childhood, Preschool, Kindergarten	28%	64%	9%	37%	46%	9%	17%	84%	0	43%	36%	22%
Elementary, Grades 1-3	37%	28%	28%	55%	19%	28%	50%	50%	9%	29%	22%	50%
Elementary, Grades 4-6	37%	28%	37%	46%	28%	28%	59%	42%	0	15%	36%	50%
Elementary Reading	28%	55%	9%	55%	46%	0	34%	50%	9%	36%	50%	15%
<b>Secondary</b>												
Art	91%	0	9%	82%	0	19%	75%	17%	0	65%	0	36%
Foreign Language	64%	19%	19%	64%	9%	28%	67%	17%	9%	43%	15%	43%
Health/Physical Education	82%	9%	9%	9%	9%	82%	42%	17%	25%	22%	0	79%
Home Economics	55%	37%	9%	82%	0	19%	67%	0	25%	72%	0	29%
Industrial Arts	9%	91%	0	37%	64%	0	25%	75%	0	72%	29%	0
Mathematics	64%	37%	0	64%	28%	9%	9%	84%	0	58%	58%	8%
Music	64%	28%	9%	73%	28%	0	59%	25%	9%	43%	29%	22%
Reading	37%	64%	0	55%	46%	0	34%	50%	9%	36%	50%	8%
Science	64%	28%	9%	55%	37%	9%	25%	59%	0	29%	43%	29%
Social Studies	28%	0	73%	9%	0	91%	34%	0	59%	8%	0	93%
Vocational - Technical	19%	73%	0	19%	92%	0	34%	67%	0	22%	65%	8%
<b>Special Instructional Areas</b>												
Special Education	19%	82%	0	19%	82%	0	9%	92%	0	29%	65%	8%
Bilingual Education	37%	37%	0	37%	55%	0	25%	25%	0	29%	65%	8%
Environmental Education	55%	19%	0	80%	64%	0	25%	25%	0	72%	8%	8%
Ethnic Studies	55%	9%	0	73%	28%	0	34%	9%	0	50%	15%	8%
Adult Education	64%	9%	0	82%	19%	0	50%	34%	0	58%	0	15%
Career Education	9%	37%	0	37%	55%	0	25%	42%	0	43%	15%	8%

NOTE: Where states did not respond to specific questions, percentages will not add up to 100 percent.