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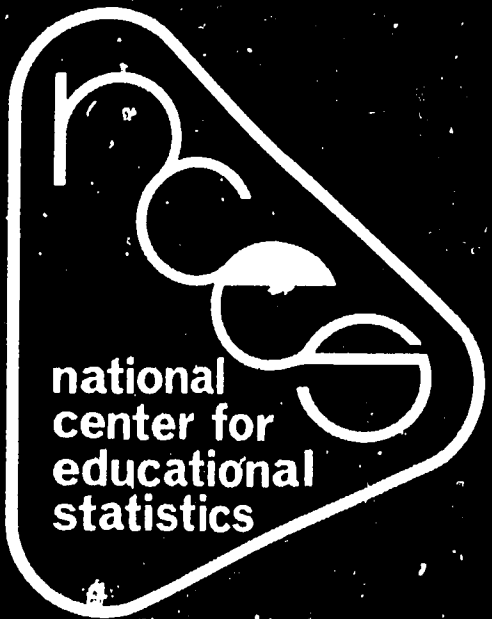
ABSTRACT

Using data from the pilot School Staffing Survey, this report points out the availability of selected pupil personnel specialists for public elementary and secondary schools in cities with populations over 100,000 and in the rest of the nation. The specialists included are: (1) nurses, (2) speech therapists, (3) psychologists, (4) psychiatrists, (5) counselors, (6) social workers, (7) physicians, (8) dentists, (9) psychometrists, (10) dental hygienists, (11) physical therapists. Only the first three categories listed above were available to over half of the nation's public schools in fall 1968. Source tables support the data. (BH)

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The Availability of Pupil Personnel Specialists to Public Schools, Fall 1968



DHEW Publication No. (OE) 72-35

THE AVAILABILITY OF PUPIL PERSONNEL SPECIALISTS TO PUBLIC SCHOOLS, FALL 1968

by
Ronald J. Pedone
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FOREWORD

The data in this report are derived from the pilot School Staffing Survey, a cooperative project conducted by the U.S. Office of Education's National Center for Educational Statistics (NCES) and Bureau of Educational Personnel Development, with support from the National Center for Educational Research and Development. This survey, in part, provides statistical content for the Commissioner of Education's annual report on the education professions, which is required under section 503(b) of the Education Professions Development Act.

The survey was developed and directed by Leslie J. Silverman and A. Stafford Metz of NCES' Statistical Standards Staff, with the assistance of Jonathan Chang and the supervision of Boyd Ladd, Assistant Director for Statistical Development. The survey attained a very high response rate--95 percent overall--attributable in part to the support of the Committee on Educational Data Systems. Significant advice also came from the National Education Association's Research Division and others. The Office of Education is grateful to the many school principals who took time from their very busy days to complete the questionnaires. The collection and tabulation of data were carried out under contract by Westat Research, Inc., Rockville, Md.

Dorothy M. Gilford
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THE AVAILABILITY OF PUPIL PERSONNEL SPECIALISTS TO PUBLIC SCHOOLS

Introduction

The Education Professions - 1968 report stressed the importance of, and urgent need for, pupil personnel services and specialists within the educational system. Used in kindergarten through grade 12, pupil personnel services encompass: guidance services, psychological services, social services, and health services.^{1/} Offering unique skills and working in concert with other members of the educational system, pupil personnel specialists are capable of assisting children, their parents, and teachers in effectively utilizing the resources of the school and community. The report concludes that:

Pupil personnel services are vitally needed in all schools. The number of pupil personnel workers needs to be expanded by an estimated three-fold. Inner-city and rural children and youth need immediate improvements in both quantity and quality of these services...^{2/}

The present report presents baseline data on the availability of selected pupil personnel specialists in fall 1968 for the Nation's public elementary and secondary schools generally, for the public schools located in the 130 cities with a population of 100,000 or more as of 1960, and for those in the remainder of the contiguous United States. The specialists discussed in terms of extent of availability to schools are: nurses, speech therapists, school psychologists, school counselors, school social workers (including school community workers and visiting teachers), physicians, psychiatrists, dentists, psychometrists, dental hygienists, and physical therapists.

This report points out the availability of categories of pupil personnel specialists in public schools in and outside large cities. It neither assesses the quality or quantity of specialists nor states what specialists should be available.^{3/} It is based upon data collected in May 1969 from a national sample of approximately 450 public elementary and secondary schools. All numbers and percentages are rounded; all percentages, however, were computed using unrounded numbers. For a detailed discussion on how the survey was conducted see appendix B.

The Concept of Availability

As used here, availability of pupil personnel specialists is based upon the responses of school principals. Principals were asked to indicate staff availability in terms of: "resident" in school (full or part time) and "on demand"--available on call from the school district or other agency. In responding to on-demand availability, principals were asked to indicate the length of time the school must wait before specialists are provided to the school. Availability, therefore, refers to access to these specialists as resident, on call, or both.

NOTE: Footnotes are shown on pages 6 and 7.

Overview

In fall 1968, only three categories of pupil personnel specialists--nurses, speech therapists, and school psychologists--were available to 63 percent or more of the Nation's public schools. School counselors were available to nearly half of the public schools (table A).

Table A.--Percent of public schools reporting pupil personnel specialists available, by level and location of school: 48 contiguous States and D.C., fall 1968

Type of pupil personnel specialist	Percent of schools reporting availability				
	All schools ^{1/} (82,900)	Elementary schools (59,600)	Secondary schools (21,000)	Schools in large cities (11,900)	Schools outside large cities (71,000)
Nurses.....	88	88	88	94	87
Speech therapists	67	74	54	85	64
School psychologists.....	63	68	54	85	59
School counselors	48	32	97	63	45
School social workers ^{2/}	38	42	31	72	33
Physicians.....	37	38	38	56	34
Psychiatrists.....	29	29	33	48	26
Dentists.....	28	31	25	34	28
Psychometrists.....	27	29	22	42	24
Dental hygienists.	16	17	17	29	14
Physical therapists.....	9	9	8	9	9

- ^{1/} Combined schools, with both elementary and secondary grades, are included in the totals but not in the detail by school level.
- ^{2/} Includes school community workers and visiting teachers.

Seven categories of specialists--school social workers, physicians, psychiatrists, dentists, psychometrists, dental hygienists, and physical therapists--were available to 38 percent or less of the public schools located in the contiguous United States and the District of Columbia.

Elementary and Secondary Schools

Nearly 9 in 10 (88 percent) of both the elementary and the secondary schools were reported to have access to nurses. Two-thirds or more of the elementary schools and a little over half of the secondary schools reported that speech therapists and school psychologists were available. School counselors, however, were reported available by nearly all (97 percent) of the secondary schools and only about one-third (32 percent) of the elementary schools. Put otherwise, elementary schools were as likely as secondary schools to have access to nurses, while elementary schools were more likely than secondary schools to have access to speech therapists and school psychologists. Secondary schools, however, were more likely than elementary schools to have school counselors available.

School social workers, physicians, psychiatrists, dentists, psychometrists, dental hygienists, and physical therapists were reported available by 42 percent or less of the elementary and the secondary schools.

Schools In and Outside Large Cities

All types of pupil personnel specialists except physical therapists were consistently reported available by proportionately more schools in large cities than outside large cities. Further, from 15 to 39 percentage points more schools in large cities than outside large cities reported the availability of dental hygienists, psychometrists, school counselors, speech therapists, psychiatrists, physicians, school psychologists, and school social workers.

On-Demand and Resident Availability

In terms of the form of availability reported by public schools, more types of pupil personnel specialists were available on demand from the school district or another agency than were resident in the school (table B).

Table B.--Percent of all public schools reporting the availability of pupil personnel specialists as resident in school and on demand to school with different waiting times: 48 contiguous States and D.C., fall 1968

Type of pupil personnel specialist	Total schools ^{1/} (82,900)	Specialist not available to school	Specialist available	
			Resident in school	On demand to school and waiting ^{2/--} 1 week or less 2 weeks or more
Nurses.....	100	12	63	22 7
Speech therapists	100	33	48	13 8
School psychologists.....	100	37	18	16 30
School counselors	100	52	41	(3/) (3/)
School social workers ^{4/}	100	62	16	(5/) (5/)
Physicians.....	100	63	12	21 6
Psychiatrists...	100	71	3	6 21
Dentists.....	100	72	10	10 11
Psychometrists..	100	73	10	6 12
Dental hygienists	100	84	10	3 4
Physical therapists.....	100	91	1	2 6

- ^{1/} For categories of pupil personnel specialists--except school counselors and school social workers--the sum of "not available" and all columns under "available" may not equal 100 percent because some schools reported both "resident" and "on demand" availability.
- ^{2/} Estimated by principals in terms of whole weeks or months. See questionnaire items in appendix B.
- ^{3/} An estimated 7 percent of the schools reported school counselors were available on demand. No breakdown by "waiting time" is available.
- ^{4/} Includes school community workers and visiting teachers.
- ^{5/} An estimated 22 percent of the schools reported school social workers--which includes school community workers and visiting teachers--were available on demand. No breakdown by "waiting time" is available.

Only nurses, speech therapists, and school counselors were reported more often as resident in school than as available on demand.

Of the public schools that reported pupil personnel specialists available on demand, nurses, speech therapists, and physicians were reported accessible more often within an immediate (1 week or less) rather than extended (2 weeks or more) period of time. Most public schools waited 2 weeks or more for school psychologists, psychiatrists, psychometrists, and physical therapists. Basically, equivalent numbers of schools indicated waiting 1 week or less and 2 weeks or more for dentists and dental hygienists.

For a detailed, numerical description of the availability of each of the types of pupil personnel specialists, see appendix A, tables 1 through 11a.

FOOTNOTES

1. U.S. Department of Health, Education, and Welfare, Office of Education, The Education Professions - 1968 (OE-58032), Washington, D.C.: U.S. Government Printing Office, June 6, 1969, p. 163.
2. Ibid.
3. I. Definitions of selected terms as provided in the survey:
 - (a) Speech therapist or pathologist - A person who is a specialist in communicative disorders including the scientific study and management of speech, hearing, and language disabilities. The primary responsibilities are of a clinical nature which involves diagnostic, evaluative, and therapeutic activities in the area of speech disabilities.
 - (b) School psychologist - A person who performs assigned professional services of psychological evaluation and analysis of pupils through such activities as measuring and interpreting the pupil's intellectual, emotional, and social development, and diagnosing educational and personal disabilities of the pupil.
 - (c) School counselor - A staff member assigned to perform professional services having the purpose of assisting pupils in making plans and choices in relation to education, vocation, or personal development.
 - (d) School social worker - A staff member assigned to perform the professional activities of assisting in the prevention of or solution to the personal, social, and emotional problems of individuals which involves such relationships as those of the family, school and community. A school community worker is a person assigned to perform the professional services of a school social worker or a visiting teacher. A visiting teacher is a staff member performing assigned social worker activities having the purpose of assisting the school and the home in solving the personal adjustment problems of pupils. (The term "visiting teacher" does not include teachers of the homebound or itinerant teachers.)
 - (e) Psychometrist - A person assigned to perform professional activities in measuring the intellectual, social, and emotional development of pupils through the administration and interpretation of psychological tests.

- (f) Dental hygienist - A person licensed to perform technical dental hygiene services such as the cleaning and care of teeth and gums and who is providing these services within the school system either as a member of the school system staff or through contracted services arrangements.
- (g) Physical therapist - A person assigned to perform the professional activities of treating disability, injury, and disease by nonmedical means involving the use of massage, exercise, heat, light, water, and electricity.
- (h) Large cities - Cities with a 1960 population of 100,000 or more.
- (i) Outside large cities - Areas comprising the remainder of the United States.

II. The data are gathered basically from the school principal or a member of his immediate staff. The respondent identified available services on the basis of having access to at least one of the respective pupil personnel specialists. The data, then, present the number of schools in each location reporting the availability of a service, rather than the number of personnel available to elementary and secondary schools in large cities and other areas.

Appendix A

SOURCE TABLES

Table 1.--Availability of nurses in public schools, by level and location of school: 48 contiguous States and D.C., fall 1968

Availability of nurses	All schools <u>1/</u>									
	Elementary schools					Secondary schools				
	In large cities		Outside large cities		Percent	In large cities		Outside large cities		Percent
Number	Percent	Number	Percent	Number		Percent	Number	Percent		
Total.....	82,900	100	9,100	100	50,500	100	2,600	100	18,400	100
Not available.....	10,000	12	400	5	7,000	14	200	7	2,400	13
Available.....	72,800	<u>2/ 88</u>	8,700	<u>2/ 95</u>	43,500	<u>2/ 86</u>	2,400	<u>2/ 93</u>	16,000	<u>2/ 87</u>
Resident.....	51,800	63	7,500	82	29,900	59	2,000	<u>2/ 77</u>	12,400	<u>2/ 67</u>
Full time.....	13,200	16	400	4	7,300	14	1,100	41	4,500	25
Part time.....	38,900	47	7,100	78	22,600	45	1,000	39	8,100	44
On demand.....	24,000	29	1,900	21	14,900	30	400	17	4,700	25

1/ Combined schools, with both elementary and secondary grades, are included in the total but not in the detail by school level.

2/ Detail may not equal total due to duplication of schools among categories comprising the detail.

NOTES.--Large cities: 130 cities with 100,000 or more population in the 1960 census. Detail may not equal total due to rounding.

Table 1-a.--Waiting time in public schools for nurses available on demand, by level and location of school: 48 contiguous States and D.C., fall 1968

Waiting time	Schools reporting nurses available on demand									
	All schools		Elementary schools		Secondary schools		In large cities		Outside large cities	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total.....	24,000	2/ 100	16,800	100	5,100	100	2,400	2/ 100	21,700	100
1 week or less...	18,600	77	14,000	83	4,500	88	2,100	90	16,400	76
2-3 weeks.....	4,500	19	2,000	12	400	7	100	4	4,400	20
1 month or more..	1,100	5	900	5	200	4	300	12	800	4

1/ Combined schools, with both elementary and secondary grades, are included in the total but not in the detail by school level.

2/ Detail may not equal total due to duplication of schools among categories comprising the detail.

NOTES.--Large cities: 130 cities with 100,000 or more population in the 1960 census.
Detail may not equal total due to rounding.

Table 2.--Availability of speech therapists in public schools, by level and location of school:
48 contiguous States and D.C., fall 1968

Availability of speech therapists	All schools 1/		Elementary schools		Secondary schools					
	Number	Percent	In large cities		Outside large cities					
			Number	Percent	Number	Percent				
Total.....	82,900	100	9,100	100	50,500	100	2,600	100	18,400	100
Not available.....	27,200	33	900	10	14,600	29	800	33	8,800	48
Available.....	55,700	2/ 67	8,200	90	35,900	2/ 71	1,700	67	9,700	52
Resident.....	40,100	48	6,700	74	27,400	54	800	30	5,100	28
Full time.....	3,800	5	200	2	3,200	6	*	1	500	2
Part time.....	36,600	44	6,500	72	24,500	49	800	30	4,700	25
On demand.....	17,300	21	1,600	17	10,100	20	1,000	37	4,700	25

1/ Combined schools, with both elementary and secondary grades, are included in the total but not in the detail by school level.

2/ Detail may not equal total due to duplication of schools among categories comprising the detail.
* Quantity more than 0 but less than 50.

NOTES.--Large cities: 130 cities with 100,000 or more population in the 1960 census.
Detail may not equal total due to rounding.

Table 2-a.--Waiting time in public schools for speech therapists available on demand, by level and location of school: 48 contiguous States and D.C., fall 1968

Waiting time	Schools reporting speech therapists available on demand									
	All schools ^{1/}		Elementary schools		Secondary schools		In large cities		Outside large cities	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total.....	17,300	100	11,700	100	5,600	100	2,600	100	14,800	100
1 week or less....	10,600	61	6,600	56	4,000	71	1,600	64	9,000	61
2-3 weeks.....	2,700	16	1,700	15	1,000	17	600	24	2,100	14
1 month or more...	4,000	23	3,400	29	600	11	300	12	3,700	25

^{1/} Combined schools, with both elementary and secondary grades, are included in the total but not in the detail by school level.

NOTES.--Large cities: 130 cities with 100,000 or more population in the 1960 census. Detail may not equal total due to rounding.

Table 3.--Availability of school psychologists in public schools, by level and location of school:
48 contiguous States and D.C., fall 1968

Availability of school psychologists	All schools 1/		Elementary schools		Secondary schools					
	Number	Percent	In large cities		In large cities					
			Number	Percent	Number	Percent				
Total.....	82,900	100	9,100	100	50,500	100	2,600	100	18,400	100
Not available.....	30,800	37	1,100	12	17,800	35	600	22	9,100	49
Available.....	52,000	2/ 63	8,000	2/ 88	32,700	65	2,000	78	9,300	51
Resident.....	15,100	18	2,800	31	10,300	20	200	8	1,800	10
Full time.....	700	1	-	-	-	-	*	2	700	4
Part time.....	14,400	17	2,800	31	10,300	20	200	6	1,100	6
On demand.....	38,200	46	5,400	59	23,200	46	1,800	71	7,700	42

1/ Combined schools, with both elementary and secondary grades, are included in the total but not in the detail by school level.

2/ Detail may not equal total due to duplication of schools among categories comprising the detail.

* Quantity more than 0 but less than 50.

- Quantity zero in sample.

NOTES.--Large cities: 130 cities with 100,000 or more population in the 1960 census.
Detail may not equal total due to rounding.

Table 3-a.--Waiting time in public schools for school psychologists available on demand, by level and location of school: 48 contiguous States and D.C., fall 1968

Waiting time	Schools reporting psychologists available on demand									
	All schools <u>1/</u>		Elementary schools		Secondary schools		In large cities		Outside large cities	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total.....	38,200	100	28,600	100	9,600	100	7,200	100	31,000	100
1 week or less.....	13,200	35	8,700	30	4,600	48	1,900	26	11,400	37
2-3 weeks.....	12,500	33	9,900	35	2,600	27	2,300	32	10,200	33
1 month or more.....	12,400	33	10,000	35	2,400	25	3,000	42	9,400	30

1/ Combined schools, with both elementary and secondary grades, are included in the total but not in the detail by school level.

NOTES.--Large cities: 130 cities with 100,000 or more population in the 1960 census. Detail may not equal total due to rounding.

Table 4.--Availability of school counselors in public schools, by level and location of school: 48 contiguous States and D.C., fall 1968

Availability of school counselors	All schools 1/		Elementary schools				Secondary schools			
	Number	Percent	In large cities		Outside large cities		In large cities		Outside large cities	
			Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total.....	82,900	100	9,100	100	50,500	100	2,600	100	18,400	100
Not available.....	43,100	52	4,300	48	36,100	72	*	1	600	3
Available.....	39,700	48	4,800	52	14,300	28	2,600	2/ 99	17,900	97
Resident 3/.....	33,900	41	3,300	36	10,500	21	2,500	96	17,500	95
On demand 4/.....	5,700	7	1,500	16	3,900	8	*	1	300	2

1/ Combined schools, with both elementary and secondary grades, are included in the total but not in the detail by school level.

2/ Detail may not equal total because schools reporting combinations of "Resident" and "On demand" without specific identification are not included in either "Resident" or "On demand" counts.

3/ Derived from number of schools reporting school counselors available as salaried staff and combination of salaried staff and other source of access. No breakdown by type of residency is available.

4/ Derived from number of schools reporting school counselors available from school district, other agency and volunteer. No breakdown by waiting time is available.

* Quantity more than 0 but less than 50.

NOTES.--Large cities: 130 cities with 100,000 or more population in the 1960 census.

Detail may not equal total due to rounding.

Table 5.--Availability of school social workers, school community workers, and visiting teachers in public schools, by level and location of school: 48 contiguous States and D.C., fall 1968

Availability of school social workers, school community workers, and visiting teachers	All schools 1/		Elementary schools		Secondary schools					
	Number	Percent	In large cities		Outside large cities					
			Number	Percent	Number	Percent				
Total.....	82,900	100	9,100	100	50,500	100	2,600	100	18,400	100
Not available.....	51,100	62	2,300	25	32,100	64	900	35	13,500	73
Available.....	32,000	38	6,800	2/ 75	18,300	36	1,700	65	4,900	2/ 27
Resident 3/.....	12,900	16	3,700	41	6,100	12	600	25	2,400	13
On demand 4/.....	18,000	22	2,600	29	12,200	24	1,000	39	2,200	12

1/ Combined schools, with both elementary and secondary grades, are included in the total but not in the detail by school level.

2/ Detail may not equal total because schools reporting combinations of "Resident" and "On demand" without specific identification are not included in either "Resident" or "On demand" counts.

3/ Derived from number of schools reporting school social workers, school community workers, and visiting teachers available as salaried staff and combination of salaried staff and other source of access. No breakdown by type of residency is available.

4/ Derived from number of schools reporting school social workers, school community workers, and visiting teachers available from school district, other agency and volunteer. No breakdown by waiting time is available.

NOTES.--Large cities: 130 cities with 100,000 or more population in the 1960 census. Detail may not equal total due to rounding.

Table 6.--Availability of physicians (other than psychiatrists) in public schools, by level and location of school: 48 contiguous States and D.C., fall 1968

Availability of physicians (other than psychiatrists)	All schools 1/		Elementary schools				Secondary schools			
	Number	Percent	In large cities		Outside large cities		In large cities		Outside large cities	
			Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total.....	82,900	100	9,100	100	50,500	100	2,600	100	18,400	100
Not available.....	52,300	63	4,000	44	33,200	66	1,100	42	11,900	65
Available.....	30,500	2/ 37	5,100	2/ 56	17,300	34	1,500	58	6,500	35
Resident.....	10,200	12	2,800	31	5,700	11	600	23	1,000	6
Full time.....	*	**	-	-	-	-	*	1	-	-
Part time.....	10,200	12	2,800	31	5,700	11	600	22	1,000	6
On demand.....	21,600	26	2,800	31	12,300	24	900	36	5,500	30

1/ Combined schools, with both elementary and secondary grades, are included in the total but not in the detail by school level.

2/ Detail may not equal total due to duplication of schools among categories comprising the detail.

* Quantity more than 0 but less than 50.

** Percent more than 0 but less than 0.5.

- Quantity zero in sample.

NOTES.--Large cities: 130 cities with 100,000 or more population in the 1960 census.
Detail may not equal total due to rounding.

Table 6-a.--Waiting time in public schools for physicians (other than psychiatrists) available on demand, by level and location of school: 48 contiguous States and D.C., fall 1968

Waiting time	Schools reporting physicians (other than psychiatrists) available on demand									
	All schools 1/		Elementary schools		Secondary schools		In large cities		Outside large cities	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total.....	21,600	2/ 100	15,100	100	6,400	100	3,800	100	17,800	2/ 100
1 week or less.....	17,300	80	12,200	81	5,100	80	2,100	56	15,200	86
2-3 weeks.....	3,900	18	2,200	14	1,700	27	800	20	3,100	17
1 month or more.....	1,000	5	800	5	300	4	900	24	100	1

1/ Combined schools, with both elementary and secondary grades, are included in the total but not in the detail by school level.

2/ Detail may not equal total due to duplication of schools among categories comprising the detail.

NOTES.--Large cities: 130 cities with 100,000 or more population in the 1960 census. Detail may not equal total due to rounding.



Table 7.--Availability of psychiatrists in public schools, by level and location of school: 48 contiguous States and D.C., fall 1968

Availability of psychiatrists	All schools 1/											
	Number	Percent	Elementary schools				Secondary schools				Number	Percent
			In large cities		Outside large cities		In large cities		Outside large cities			
			Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total.....	82,900	100	9,100	100	50,500	100	2,600	100	18,400	100		
Not available.....	58,700	71	4,700	51	37,700	75	1,300	51	12,700	69		
Available.....	24,200	29	4,400	49	12,800	25	1,300	49	5,700	31		
Resident.....	2,800	3	700	8	1,700	3	100	3	200	1		
Full time.....	*	**	-	-	-	-	*	**	-	-		
Part time.....	2,800	3	700	8	1,700	3	100	3	200	1		
On demand.....	22,300	27	3,800	42	11,800	23	1,200	46	5,500	30		

1/ Combined schools, with both elementary and secondary grades, are included in the total but not in the detail by school level.
 * Quantity more than 0 but less than 50.
 ** Percent more than 0 but less than 0.5.
 - Quantity zero in sample.

NOTES.--Large cities: 130 cities with 100,000 or more population in the 1960 census. Detail may not equal total due to rounding.



Table 7-a.--Waiting time in public schools for psychiatrists available on demand, by level and location of school: 48 contiguous States and D.C., fall 1968

Waiting time	Schools reporting psychiatrists available on demand									
	All schools ^{1/}		Elementary schools		Secondary schools		In large cities		Outside large cities	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total.....	22,300	100	15,700	100	6,700	100	5,000	100	17,300	100
1 week or less.....	5,100	23	3,700	24	1,300	20	400	7	4,700	27
2-3 weeks.....	6,200	28	4,300	28	1,900	29	1,200	24	5,000	29
1 month or more.....	11,000	49	7,600	49	3,400	51	3,500	69	7,600	44

^{1/} Combined schools, with both elementary and secondary grades, are included in the total but not in the detail by school level.

NOTES.--Large cities: 130 cities with 100,000 or more population in the 1960 census. Detail may not equal total due to rounding.

Table 8.--Availability of dentists in public schools, by level and location of school: 48 contiguous States and D.C., fall 1968

Availability of dentists	All schools ^{1/}											
	Elementary schools						Secondary schools					
	In large cities		Outside large cities		In large cities		Outside large cities		In large cities		Outside large cities	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total.....	82,900	100	9,100	100	50,500	100	2,600	100	18,400	100	18,400	100
Not available.....	59,300	72	5,800	64	35,500	70	1,800	69	13,900	75	13,900	75
Available.....	23,600	<u>2/</u> 28	3,300	36	15,000	<u>2/</u> 30	800	31	4,600	25	4,600	25
Resident.....	8,200	10	1,800	20	5,700	11	200	6	500	2	500	2
Full time.....	400	1	300	4	-	-	100	4	-	-	-	-
Part time.....	7,800	9	1,500	17	5,700	11	100	2	500	2	500	2
On demand.....	16,800	20	1,500	16	10,800	21	600	24	4,000	22	4,000	22

^{1/} Combined schools, with both elementary and secondary grades, are included in the total but not in the detail by school level.

^{2/} Detail may not equal total due to duplication of schools among categories comprising the detail. Quantity zero in sample.

NOTES.--Large cities: 130 cities with 100,000 or more population in 1960 census. Detail may not equal total due to rounding.

Table 8-a.--Waiting time in public schools for dentists available on demand, by level and location of school: 48 contiguous States and D.C., fall 1968

Waiting time	Schools reporting dentists available on demand									
	All schools ^{1/}		Elementary schools		Secondary schools		In large cities		Outside large cities	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total.....	16,800	<u>2/</u> 100	12,200	100	4,600	<u>2/</u> 100	2,100	100	14,700	<u>2/</u> 100
1 week or less.....	8,600	51	5,300	43	3,300	72	500	25	8,100	55
2-3 weeks.....	3,900	23	2,500	21	1,400	29	400	19	3,500	24
1 month or more....	5,000	30	4,400	36	600	14	1,200	56	3,800	26

^{1/} Combined schools, with both elementary and secondary grades, are included in the total but not in the detail by school level.

^{2/} Detail may not equal total due to duplication of schools among categories comprising the detail.

NOTES.--Large cities: 130 cities with 100,000 or more population in 1960 census. Detail may not equal total due to rounding.

Table 9.--Availability of psychometrists in public schools, by level and location of school: 48 contiguous States and D.C., fall 1968

Availability of psychometrists	All schools 1/		Elementary schools				Secondary schools			
	Number	Percent	In large cities		Outside large cities		In large cities		Outside large cities	
			Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total.....	82,900	100	9,100	100	50,500	100	2,600	100	18,400	100
Not available.....	60,800	73	5,500	60	36,700	73	1,300	49	15,100	82
Available.....	22,100	27	3,600	40	13,800	27	1,300	51	3,300	18
Resident.....	8,200	10	1,000	11	6,000	12	300	11	900	5
Full time.....	300	**	-	-	-	-	*	1	200	1
Part time.....	8,000	10	1,000	11	6,000	12	300	10	700	4
On demand.....	15,000	18	3,200	35	8,300	16	1,100	42	2,400	13

1/ Combined schools, with both elementary and secondary grades, are included in the total but not in the detail by school level.

2/ Detail may not equal total due to duplication of schools among categories comprising the detail.

* Quantity more than 0 but less than 50.

** Percent more than 0 but less than 0.5.

- Quantity zero in sample.

NOTES.--Large cities: 130 cities with 100,000 or more population in the 1960 census. Detail may not equal total due to rounding.

Table 9-a.--Waiting time in public schools for psychometrists available on demand, by level and location of school: 48 contiguous States and D.C., fall 1968

Waiting time	Schools reporting psychometrists available on demand									
	All schools <u>1/</u>		Elementary schools		Secondary schools		In large cities		Outside large cities	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total.....	15,000	100	11,500	100	3,500	100	4,300	100	10,700	100
1 week or less.....	5,200	35	4,200	36	1,000	29	1,800	41	3,400	32
2-3 weeks.....	6,100	41	4,500	39	1,600	47	1,400	33	4,700	44
1 month or more.....	3,700	24	2,800	24	800	24	1,100	26	2,500	24

1/ Combined schools, with both elementary and secondary grades, are included in the total but not in the detail by school level.

NOTES.--Large cities: 130 cities with 100,000 or more population in the 1960 census. Detail may not equal total due to rounding.



Table 10.--Availability of dental hygienists in public schools, by level and location of school: 48 contiguous States and D.C., fall 1968

Availability of dental hygienists	All schools 1/		Elementary schools		Secondary schools					
	Number	Percent	In large cities		Outside large cities					
			Number	Percent	Number	Percent				
Total.....	82,900	100	9,100	100	50,500	100	2,600	100	18,400	100
Not available.....	69,300	84	6,200	68	43,500	86	2,000	77	15,400	83
Available.....	13,500	2/ 16	2,900	32	7,000	2/ 14	600	23	3,100	17
Resident.....	8,600	10	1,600	18	5,400	11	200	8	1,400	7
Full time.....	1,100	1	200	2	800	2	*	**	100	1
Part time.....	7,500	9	1,400	16	4,600	9	200	8	1,300	7
On demand.....	6,200	7	1,200	13	2,900	6	400	15	1,700	9

1/ Combined schools, with both elementary and secondary grades, are included in the total but not in the detail by school level.

2/ Detail may not equal total due to duplication of schools among categories comprising the detail.

* Quantity more than 0 but less than 50.

** Percent more than 0 but less than 0.5.

NOTES.--Large cities: 130 cities with 100,000 or more population in the 1960 census. Detail may not equal total due to rounding.

Table 10-a.--Waiting time in public schools for dental hygienists available on demand, by level and location of school: 48 contiguous States and D.C., fall 1968

Waiting time	Schools reporting dental hygienists available on demand									
	All schools ^{1/}		Elementary schools		Secondary schools		In large cities		Outside large cities	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Total.....	6,200	100	4,100	100	2,100	100	1,600	100	4,600	100
1 week or less.....	2,900	47	2,000	49	900	43	500	28	2,400	53
2-3 weeks.....	1,700	28	1,100	27	600	30	400	27	1,300	28
1 month or more....	1,600	26	1,000	25	600	27	700	45	900	19

^{1/} Combined schools, with both elementary and secondary grades, are included in the total but not in the detail by school level.

NOTES.--Large cities: 130 cities with 100,000 or more population in the 1960 census. Detail may not equal total due to rounding.



Table 11.--Availability of physical therapists in public schools, by level and location of school:
48 contiguous States and D.C., fall 1968

Availability of physical therapists	All schools 1/		Elementary schools		Secondary schools					
	Number	Percent	In large cities		Outside large cities					
			Number	Percent	Number	Percent				
Total.....	82,900	100	9,100	100	50,500	100	2,600	100	18,400	100
Not available.....	75,500	91	8,200	90	45,800	91	2,300	91	16,900	92
Available.....	7,300	2/ 9	900	2/ 10	4,700	9	200	9	1,500	8
Resident.....	600	1	600	6	-	-	*	**	-	-
Full time.....	-	-	-	-	-	-	-	-	-	-
Part time.....	600	1	600	6	-	-	*	**	-	-
On demand.....	7,200	9	800	8	4,700	9	200	9	1,500	8

1/ Combined schools, with both elementary and secondary grades, are included in the total but not in the detail by school level.

2/ Detail may not equal total due to duplication of schools among categories comprising the detail.

* Quantity more than 0 but less than 50.

** Percent more than 0 but less than 0.5.

- Quantity zero in sample.

NOTES.--Large cities: 130 cities with 100,000 or more population in the 1960 census.
Detail may not equal total due to rounding.

Table 11-a.--Waiting time in public schools for physical therapists available on demand, by level and location of school: 48 contiguous States and D.C., fall 1968

Waiting time	Schools reporting physical therapists available on demand											
	All schools 1/		Elementary schools		Secondary schools		In large cities		Outside large cities			
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent		
Total.....	7,200	100	5,500	100	1,700	100	1,000	100	6,200	100		
1 week or less.....	1,900	26	1,600	29	300	17	100	10	1,800	29		
2-3 weeks.....	1,200	17	900	17	300	16	300	25	900	15		
1 month or more....	4,100	57	3,000	55	1,100	66	700	65	3,500	56		

1/ Combined schools, with both elementary and secondary grades, are included in the total but not in the detail by school level.

NOTES.--Large cities: 130 cities with 100,000 or more population in the 1960 census. Detail may not equal total due to rounding.

Appendix B

TECHNICAL APPENDIX

Sample Design

The sample for this 1969 pilot survey was designed to provide field experience in a variety of areas and schools. It was not designed with primary regard to statistical efficiency for making national estimates from the survey, as was the subsequent 1970 survey. The 1969 survey was based on a sample of public schools from local school systems having total enrollment in fall 1967 of 300 or more pupils. (School systems having enrollment under 300 accounted for less than 2 percent of fall 1967 enrollment.) School systems in Alaska and Hawaii were also excluded from the universe.

All school systems included in the survey were stratified according to whether the central office address was in a city with 1960 population of 100,000 or more ("large city") or outside of the large cities.

Large-City Systems. For the sample of schools from large-city school systems, the city was treated as a stratum for sampling. There were 129 large cities in the 48 States and D.C. covered by the sample. Two of these were served by a single system and were therefore treated as a single stratum. Thus, there were 128 strata of large cities. Two elementary schools and two secondary schools were selected from each city-stratum by systematic random sampling. Distinctions between systems within one city were ignored in this sampling. Two forms, designated as Form A and Form B, were to be used in the survey. Correspondingly, one elementary school and one secondary school were randomly assigned for the use of Form A in the survey, the other member of the pair being assigned for Form B.

Systems Outside Large Cities. The sample of schools from systems outside the large cities was selected as a two-stage sample. At the first stage, a sample of 100 systems was randomly selected. One elementary and one secondary school were to be chosen at random from each of these systems. Because some of the selected systems did not operate secondary schools, additional systems were randomly selected, and one secondary school randomly sampled per system, until a total sample of 100 secondary schools was obtained.

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Summary. The allocation of the school sample over the strata is summarized in the table below.

	<u>Location of system and level of school</u>			
	<u>In large cities</u>		<u>Outside large cities</u>	
	<u>Elementary</u>	<u>Secondary</u>	<u>Elementary</u>	<u>Secondary</u>
Number of systems:				
Population	128	128	11,108	9,987
Sample	128	128	100	100
Number of schools in:				
Population	9,122	2,583	50,475	18,426
Sample:				
Total	<u>256</u>	<u>256</u>	<u>100</u>	<u>100</u>
Form A	128	128	100	100
Form B	128	128	0	0

Sampling Reliability of Estimates

Since the estimates in this report are based on only a sample of schools, they are subject to sampling variability. As a guide to users of the data in this report, approximate standard errors for estimates shown in the report are presented in this appendix. For this survey, the standard error is a measure of sampling reliability such that the chances are about 2 in 3 that the difference between the published estimate and the results that would have been obtained from a complete census of all schools, using the same procedures, would be less than the limit of error specified. The chances are about 19 in 20 that the difference would be less than twice the limit of error specified.

Standard Errors for Estimated Percentages or Numbers of Schools. Table I presents approximate standard errors for estimates of the percentage of schools, by location and level of school, having a given characteristic. For example, table I shows for an estimate that 5 percent of elementary schools in all areas have a given characteristic, the approximate standard error of the estimate is 2.7 percent. Then, the chances are about 2 in 3 that the difference between the survey estimate of 5 percent and the results of a complete census of all schools, using the same procedures, would be less than 2.7 percent. The chances are about 19 in 20 that the difference would be less than 5.4 percent. The standard error of 2.7 percent represents a coefficient of variation, or measure of relative error, of 54 percent [(2.7÷5.0)×100].

The measures in table I may be interpreted in terms of estimates of numbers of schools, and their standard errors, by multiplying the percentages and standard errors by the base of the percentage shown in the table. For example, an estimate that 5 percent of elementary schools in all areas have a given characteristic would correspond to an estimate that 2,980 elementary schools have the characteristic (5 percent of 59,600). The standard error of 2.7 percent would correspond to a standard error of 1,609 schools (2.7 percent of 59,600).

Table I.--Standard error of the estimated percentage of schools having (or not having) a specified characteristic, by location of system and level of school ^{1/}

Location and level of school	Base of percentage ^{2/}	Estimated percentage of schools				
		2 or 98	5 or 95	10 or 90	25 or 75	50
		Standard error (percentage points)				
All areas						
All schools	82,860 ^{3/}	1.4	2.2	2.9	4.1	4.7
Elementary	59,600	1.4	2.7	3.7	4.8	6.3
Secondary	21,010	1.3	2.4	3.5	4.7	5.7
In large cities						
All schools	11,880 ^{3/}	1.1	1.8	2.9	4.8	6.0
Elementary	9,120	1.5	2.3	3.5	5.5	7.0
Secondary	2,580	1.5	2.3	3.5	5.5	7.0
Outside large cities						
All schools	70,980 ^{3/}	1.6	2.6	3.5	4.3	4.8
Elementary	50,480	1.6	3.0	4.4	5.6	6.8
Secondary	18,430	1.6	2.6	3.9	5.0	6.1

^{1/} The standard errors shown are approximate measures of sampling reliability. See preceding discussion.

^{2/} Number of schools.

^{3/} Combined schools, with both elementary and secondary grades, are included in the total but not in the detail by school level.

Variation From Sources Other Than Sampling

In addition to sampling variability, the survey estimates are also subject to reporting error and biases in response as well as processing error which would affect a survey of all schools as well as a sample survey. The effects of these are not completely reflected in the measures of sampling reliability just presented. A number of steps were taken in the survey aimed at minimizing the impact of such nonsampling error.

School Nonresponse. To the extent to which schools which do not respond in a survey differ from those which do, there is an unknown bias in the estimates for all schools which may be serious if the rate of nonresponse is high. In this survey, a high rate of cooperation from schools was achieved, as indicated by the following table of response rates:

	<u>Location of system and level of school</u>			
	<u>In large cities</u>		<u>Outside large cities</u>	
	<u>Elementary</u>	<u>Secondary</u>	<u>Elementary</u>	<u>Secondary</u>
Form A	95.3%	93.0%	96.0%	92.0%
Form B	99.2%	91.4%	--	--
Forms A and B	97.3%	92.2%	96.0%	92.0%

Item Nonresponse. Steps were also taken to keep at a low level missing responses for items on the questionnaires from schools which cooperated. As a result of these efforts the nonresponse rate is less than 1 percent for almost all items.

Quality of Reported Data. The steps taken to identify and deal with situations likely to give rise to poor quality of data may be illustrated in many ways and at all phases of the survey process. Interviewers, for example, were used to elicit information personally from over half of the respondents. On completion of the questionnaire, the interviewer performed a preliminary edit of responses for completeness, accuracy, and consistency. Also, the interviewer and respondent completed an evaluation form which probed into possible problems in understanding of the meaning of any of the key items or in obtaining reliable data for a response. Some weak items were subsequently dropped from the analysis based on the evidence of this evaluation. Prominent among these was the identification of programs in schools which were or were not supported by Federal funds; many principals were unable to identify programs with funding sources.

Each completed form was given a full edit by at least one survey specialist. A number of items were designated as "call" questions; the principal was to be reinterviewed by telephone if any one of these questions was found to be answered in contradiction to or in some way inconsistent with other responses.

Also, members of the NCES professional staff and consultants visited personally 14 responding schools and interviewed the respondents in depth. These case studies were undertaken because their reports indicated that the schools were especially atypical in some regard. For example, one elementary school in the Midwest reported that more than half the pupils who completed the school year there did not begin the school year in that school. It was important to verify this report; as a "bonus," it was also possible to find out how the school attempted to deal with its large, unstable pupil membership.

Comparable cautions were exercised with the coding, key punching, and each of the several phases of electronic data processing.

Finally, estimates from the School Staffing Survey were compared with estimates from other sources. In this regard, for example, counts of full-time equivalents (FTE's) of staff members estimated from the School Staffing Survey compare very well for nine different positions with estimates of FTE's from NCES' ELSEGIS for the same positions, based on reports for the same year from a sample of about 1,400 school districts.

Questionnaire Items

Data in this report derive from the following items which were included in Form A of the 1969 School Staffing Survey.

STAFF ASSIGNMENTS

7. For each type of health service listed below indicate those not now available to pupils in this school. For those which are available, record the number of persons full-time and part-time who are resident in this school or the waiting time for those services available upon call from the School District or other agency.

7E. HEALTH SERVICE	Not Available	Available					
		Resident in School		On Demand			
		Full-Time	Part-Time	0-1 Week	Waiting Time		Over 3 Months
			2-3 Weeks	1-3 Months			
u. Psychiatrist	---	---	---	---	---	---	---
v. School psychologist	---	---	---	---	---	---	---
w. Psychometrist	---	---	---	---	---	---	---
x. Physician (other than psychiatrist)	---	---	---	---	---	---	---
y. Dentist	---	---	---	---	---	---	---
z. Nurse	---	---	---	---	---	---	---
aa. Dental hygienist	---	---	---	---	---	---	---
bb. Speech therapist	---	---	---	---	---	---	---
cc. Physical therapist	---	---	---	---	---	---	---
dd. Other health services (Specify)	---	---	---	---	---	---	---
_____	---	---	---	---	---	---	---
_____	---	---	---	---	---	---	---

For school counselors and school social workers--including school community workers and visiting teachers--school principals were asked whether person(s) were part of the salaried staff with regular assignment in the school (i.e., "resident in school") and/or available from district staff or other agency when called upon (i.e., "available on demand").