

# Characteristics of Public School Districts in the United States:

## Results From the 2007–08 Schools and Staffing Survey

First Look





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## Contents

	Page
List of Tables .....	iv
Introduction .....	1
Selected Findings .....	3
References .....	5
Estimate Tables .....	6
Appendix A: Standard Error Tables.....	A-1
Appendix B: Methodology and Technical Notes.....	B-1
Appendix C: Description of Data Files.....	C-1
Appendix D: Description of Variables.....	D-1

## List of Tables

Table	Page
1. Number of public school districts, by selected public school district characteristics: 2007-08.....	7
2. Percentage of public school districts that had salary schedules for teachers and among those that had salary schedules, the average yearly teacher base salary, by various levels of degrees and experience and selected public school district characteristics: 2007-08.....	8
3. Average lowest and highest yearly base salaries paid to full-time teachers among all districts, by selected public school district characteristics: 2007-08.....	9
4. Percentage of public school districts that offered various benefits to teachers, by selected public school district characteristics: 2007-08.....	10
5. Percentage of public school districts that used pay incentives for various reasons, by selected public school district characteristics: 2007-08.....	11
6. Average number of public school teachers who were newly hired for grades K-12 and comparable ungraded levels, percentage of districts that offered free training for teachers in fields with current or anticipated shortages, and percentage of districts that used various methods for recruiting new teachers, by selected public school district characteristics: 2007-08.....	12
7. Percentage distribution of public school districts, by specific agreements with teachers' associations or unions and selected public school district characteristics: 2007-08.....	13
8. Average number of public school teachers and average number of public school teachers who were dismissed in the previous year or did not have their contracts renewed based on poor performance, by tenure status of teachers and selected public school district characteristics: 2007-08.....	14
9. Percentage of public school districts that granted high school diplomas, and among those that granted diplomas, graduation requirements for standard diplomas, by selected public school district characteristics: 2007-08.....	15

Table		Page
10.	Among districts with more than one school, percentage of public school districts that had salary schedules for principals and average lowest and highest yearly base salaries paid to all full-time principals, by selected public school district characteristics: 2007-08.....	16
11.	Among districts with more than one school, percentage distribution of public school districts, by specific agreements with principals' associations or unions and selected public school district characteristics: 2007-08.....	17
12.	Among districts with more than one school, percentage of principals who were newly hired, average number of days in the normal contract year for principals, percentage of districts that had a tenure system for principals, and percentage of districts that had a training program for aspiring school administrators, by selected public school district characteristics: 2007-08.....	18

### **Appendix A: Standard Error Tables**

A-1.	Standard errors for Table 1: Number of public school districts, by selected public school district characteristics: 2007-08.....	A-2
A-2.	Standard errors for Table 2: Percentage of public school districts that had salary schedules for teachers and among those that had salary schedules, the average yearly teacher base salary, by various levels of degrees and experience and selected public school district characteristics: 2007-08.....	A-3
A-3.	Standard errors for Table 3: Average lowest and highest yearly base salaries paid to full-time teachers among all districts, by selected public school district characteristics: 2007-08.....	A-4
A-4.	Standard errors for Table 4: Percentage of public school districts that offered various benefits to teachers, by selected public school district characteristics: 2007-08.....	A-5
A-5.	Standard errors for Table 5: Percentage of public school districts that used pay incentives for various reasons, by selected public school district characteristics: 2007-08.....	A-6

Table		Page
A-6.	Standard errors for Table 6: Average number of public school teachers who were newly hired for grades K-12 and comparable ungraded levels, percentage of districts that offered free training for teachers in fields with current or anticipated shortages, and percentage of districts that used various methods for recruiting new teachers, by selected public school district characteristics: 2007-08.....	A-7
A-7.	Standard errors for Table 7: Percentage distribution of public school districts, by specific agreements with teachers' associations or unions and selected public school district characteristics: 2007-08.....	A-8
A-8.	Standard errors for Table 8: Average number of public school teachers and average number of public school teachers who were dismissed in the previous year or did not have their contracts renewed based on poor performance, by tenure status of teachers and selected public school district characteristics: 2007-08.....	A-9
A-9.	Standard errors for Table 9: Percentage of public school districts that granted high school diplomas, and among those that granted diplomas, graduation requirements for standard diplomas, by selected public school district characteristics: 2007-08.....	A-10
A-10.	Standard errors for Table 10: Among districts with more than one school, percentage of public school districts that had salary schedules for principals and average lowest and highest yearly base salaries paid to all full-time principals, by selected public school district characteristics: 2007-08.....	A-11
A-11.	Standard errors for Table 11: Among districts with more than one school, percentage distribution of public school districts, by specific agreements with principals' associations or unions and selected public school district characteristics: 2007-08.....	A-12
A-12.	Standard errors for Table 12: Among districts with more than one school, percentage of principals who were newly hired, average number of days in the normal contract year for principals, percentage of districts that had a tenure system for principals, and percentage of districts that had a training program for aspiring school administrators, by selected public school district characteristics: 2007-08.....	A-13



## **Appendix B: Methodology and Technical Notes**

B-1.	Base-weighted unit and overall response rates, by survey: 2007-08.....	B-8
B-2.	Comparisons between frame distribution and base-weighted and final-weighted respondent distributions for public school districts with an indication of potential sources of bias: 2007-08.....	B-9
B-3.	Summary of base-weighted item response rates, by survey: 2007-08.....	B-10

## **Appendix C: Description of Data Files**

C-1.	Names of data files and the questionnaires from which the data were drawn: 2007-08.....	C-2
C-2.	The number of cases in the School District data file, by respondent and source of data: 2007-08.....	C-3

## **Appendix D: Description of Variables**

D-1.	Variables used in the Characteristics of Public School Districts in the United States: Results From the 2007-08 Schools and Staffing Survey report: 2007-08.....	D-2
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## Introduction

This report presents selected findings from the public school district data file of the 2007-08 Schools and Staffing Survey (SASS). SASS is a nationally representative sample survey of public,<sup>1</sup> private, and Bureau of Indian Education-funded (BIE) K-12 schools, principals, and teachers in the 50 states and the District of Columbia. School districts associated with public schools and library media centers in public and BIE schools are also part of SASS. Developed by the National Center for Education Statistics (NCES) of the Institute of Education Sciences within the U.S. Department of Education and conducted by the U.S. Census Bureau, SASS was first conducted in school year 1987-88. Since then, SASS has been conducted five times: in school years 1990-91, 1993-94, 1999-2000, 2003-04, and, most recently, 2007-08.

The purpose of SASS is to collect information that can provide a detailed picture of U.S. elementary and secondary schools and their staff. This information is collected through the following surveys: district, school, principal, teacher, and library media center. Information from all the surveys can be linked. For more information about surveys and data files see appendix C. The SASS questionnaires can be found at <http://nces.ed.gov/surveys/sass/question0708.asp>.

The 2007-08 SASS sample is a school-based stratified probability-proportionate-to-size (PPS) sample. The 2005-06 Common Core of Data (CCD) served as a starting point for the public school sampling frame, and the 2005-06 Private School Universe Survey (PSS) served as a starting point for the private school sampling frame. The public school sample was designed so that national-, regional-, and state-level elementary, secondary, and combined<sup>2</sup> public school estimates can be made. The private school sample was designed so that national-, regional-, and affiliation-level estimates can be produced. BIE schools on the 2005-06 CCD were sampled with certainty, and thus national estimates for BIE schools can be produced. Because SASS is a school-based sample, districts, principals, and library media centers associated with public schools were included, as were principals and library media centers associated with BIE schools and principals associated with private schools. Teachers associated with selected schools were sampled from a teacher list provided by each school. The selected samples include about 9,800 public schools, 180 BIE schools, and 2,940 private schools; 5,250 public school districts; 9,800 public school principals, 180 BIE school principals, and 2,940 private school principals; 47,440 public school teachers, 750 BIE teachers, and 8,180 private school teachers; and 9,800 public school library media centers and 180 BIE school library media centers.

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<sup>1</sup> Public schools include traditional public and charter schools.

<sup>2</sup> A combined school or combined grade school has one or more of grades K-6 and one or more of grades 9-12; for example, schools with grades K-12, 6-12, 6-9, or 1-12 were classified as having combined grades. Schools in which all students are ungraded (i.e., not classified by standard grade levels) are also classified as combined.

The data were collected via mailed questionnaires with telephone and field follow-up. The first questionnaires were mailed in September 2007, and data collection ended in June 2008. The unit response rates varied from 72 percent for private school principals to 88 percent for public school districts (appendix table B-1 shows the unit and overall response rates for each survey). Nonresponse bias analyses were performed when survey response rates for major reporting groups were less than 85 percent. For information about bias analysis results, methodology, and design of the 2007-08 SASS, please see the technical notes of this report in appendix B and the *Documentation for the 2007-08 Schools and Staffing Survey* (Tourkin et al. forthcoming).

Because the purpose of First Look reports is to introduce new data, it is possible to only include a small selection of the information in the survey. This First Look report highlights findings from SASS's district survey. Findings from the school, principal, teacher, and library media center data files will be presented in four companion First Look reports:

- *Characteristics of Public, Private, and Bureau of Indian Education Elementary and Secondary Schools in the United States: Results From the 2007–08 Schools and Staffing Survey* (NCES 2009-321);
- *Characteristics of Public, Private, and Bureau of Indian Education Elementary and Secondary School Principals in the United States: Results From the 2007–08 Schools and Staffing Survey* (NCES 2009-323);
- *Characteristics of Public, Private, and Bureau of Indian Education Elementary and Secondary School Teachers in the United States: Results From the 2007–08 Schools and Staffing Survey* (NCES 2009-324); and
- *Characteristics of Public and Bureau of Indian Education Elementary and Secondary School Library Media Centers in the United States: Results From the 2007–08 Schools and Staffing Survey* (NCES 2009-322).

The tables in this report contain counts and percentages demonstrating bivariate relationships between variables. All of the results have been weighted to reflect the sample design and to account for nonresponse and other adjustments. Comparisons drawn in the selected findings have been tested for statistical significance at the .05 level using Student's *t* statistics to ensure that the differences are larger than those that might be expected due to sampling variation. No adjustments were made for multiple comparisons. Many of the variables are related to one another, and complex interactions and relationships have not been explored. Statistical Analysis Software (SAS) (9.1) and SUDAAN (10.0) were used to compute the statistics for this report.

More information about the SASS can be found at <http://nces.ed.gov/surveys/sass>.

## Selected Findings

- Of the estimated 16,330 public school districts in operation, 48 percent (7,770) were located in rural communities, 21 percent (3,480) in suburban areas, 18 percent (2,900) in towns, and 13 percent (2,190) in cities (table 1).
- In districts' salary schedules, the average yearly base salary for teachers with a bachelor's degree and no teaching experience was \$33,600, while teachers with the same degree but 10 years of teaching experience had a yearly base salary of \$43,000 (table 2).
- The average lowest yearly base salary paid to full-time teachers was \$34,000 and the highest was \$60,400 in 2007-08 among all districts (table 3).
- About 98 percent of school districts offered general medical insurance benefits to teachers, 85 percent offered dental insurance, and 80 percent offered group life insurance (table 4).
- Overall, 24 percent of public school districts offered pay incentives to teachers if they attained certification from the National Board for Professional Teaching Standards, 15 percent offered pay incentives to recruit or retain teachers to teach in fields of shortage, 10 percent to reward excellence in teaching, and 6 percent to recruit or retain teachers to teach in a less desirable location (table 5).
- On average, there were 22.4 newly hired teachers per district in the 2007-08 school year, ranging from an average of 2.1 new hires in districts with less than 250 students to an average of 206.2 new hires in districts with 10,000 or more students (table 6).
- While 54 percent of school districts had a collective bargaining agreement with teachers' associations or unions, 11 percent of districts had meet-and-confer agreements with these groups (table 7).
- Overall, 4.4 teachers out of an average 211.4 teachers per district did not have their contracts renewed or were dismissed as a result of poor performance (table 8).
- Among the districts that granted high school diplomas, students were required to take on average 3.9 years of instruction in English or language arts, 3.0 years in mathematics, 1.0 years in computer science, 3.3 years in social sciences and social studies, 2.7 years in physical or biological sciences, and 1.6 years in foreign languages (table 9).

- Among public school districts with more than one school, the average lowest yearly base salary paid to full-time principals was \$73,300 in 2007-08, while the highest was \$88,600 (table 10).
- Collective bargaining agreements with principals' associations or unions were reported by 16 percent of public school districts with more than one school, and meet-and-confer agreements were reported by 10 percent (table 11).
- Among districts with more than one school, 24 percent of the districts had a training program for aspiring school administrators and 9 percent of principals were newly hired by a district in the 2007-08 school year (table 12).

## References

- Cochran, W.G. (1977). *Sampling Techniques*. New York: John Wiley & Sons.
- Tourkin, S., Thomas, T., Swaim, N., Cox, S., Parmer, R., Jackson, B., Cole, C., and Zhang, B. (forthcoming). *Documentation for the 2007-08 Schools and Staffing Survey* (NCES 2009-318). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education. Washington, DC.
- U.S. Department of Education, National Center for Education Statistics. (2003). *NCES Statistical Standards* (NCES 2003-601). Washington, DC: U.S. Government Printing Office.

## **Estimate Tables**

Table 1. Number of public school districts, by selected public school district characteristics: 2007-08

Selected public school district characteristic	Number of public school districts
All public school districts	16,330
District size	
1 school	5,210
2-3 schools	4,250
4-5 schools	2,620
6-9 schools	2,270
10-19 schools	1,240
20 or more schools	750
Community type	
City	2,190
Suburban	3,480
Town	2,900
Rural	7,770
District K-12 enrollment	
Less than 250	3,360
250-999	5,270
1,000-1,999	2,710
2,000-4,999	3,050
5,000-9,999	1,080
10,000 or more	850
Percent of K-12 students in district who were approved for free or reduced-price lunches	
0-34	6,130
35-49	3,250
50-74	3,850
75 or more	1,750
District did not participate in free or reduced-price lunch program	1,360

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.



Table 2. Percentage of public school districts that had salary schedules for teachers and among those that had salary schedules, the average yearly teacher base salary, by various levels of degrees and experience and selected public school district characteristics: 2007-08

Selected public school district characteristic	Percent with salary schedules for teachers	Among districts that had salary schedules, average yearly teacher base salary				
		Bachelor's degree and no teaching experience	Bachelor's degree and 10 years of teaching experience	Master's degree and no teaching experience	Master's degree and 10 years of teaching experience	Highest possible step on the salary schedule
All public school districts	92.4	\$33,600	\$43,000	\$36,700	\$47,500	\$62,200
District size						
1 school	79.1	32,900	41,700	36,100	45,800	58,400
2-3 schools	98.5	32,200	40,900	35,200	45,100	58,800
4-5 schools	98.1	33,500	43,300	36,400	47,700	62,900
6-9 schools	99.0	35,400	46,200	38,700	51,400	68,900
10-19 schools	98.7	35,700	45,600	39,100	51,000	68,300
20 or more schools	99.6	36,800	46,300	40,000	51,700	70,200
Community type						
City	73.5	36,300	46,900	39,800	51,700	68,000
Suburban	95.4	38,000	50,500	41,900	56,200	77,200
Town	94.9	32,500	41,500	35,600	45,700	59,300
Rural	95.4	31,400	39,300	34,200	43,300	55,400
District K-12 enrollment						
Less than 250	78.1	31,400	39,700	34,400	43,800	54,000
250-999	92.2	32,100	40,600	35,100	44,500	57,300
1,000-1,999	98.8	33,600	43,300	36,800	47,700	63,500
2,000-4,999	98.2	35,700	46,700	39,100	52,000	70,000
5,000-9,999	99.5	36,300	46,900	39,900	52,300	72,100
10,000 or more	99.6	37,400	47,400	40,600	52,900	72,100
Percent of K-12 students in district who were approved for free or reduced-price lunches						
0-34	96.5	34,900	45,400	38,300	50,400	67,700
35-49	95.8	32,000	40,600	34,900	44,700	58,100
50-74	91.9	32,200	40,800	35,100	44,600	57,100
75 or more	85.0	33,500	42,300	36,600	46,800	58,800
District did not participate in free or reduced-price lunch program	76.5	35,100	44,900	39,100	50,100	65,900

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.

Table 3. Average lowest and highest yearly base salaries paid to full-time teachers among all districts, by selected public school district characteristics: 2007-08

Selected public school district characteristic	Base salary of the lowest paid	Base salary of the highest paid
All public school districts	\$34,000	\$60,400
District size		
1 school	34,300	53,500
2-3 schools	32,400	58,300
4-5 schools	33,600	63,600
6-9 schools	35,300	69,200
10-19 schools	35,500	68,100
20 or more schools	36,400	70,600
Community type		
City	35,000	58,300
Suburban	37,900	76,400
Town	32,700	58,700
Rural	32,500	54,500
District K-12 enrollment		
Less than 250	34,100	49,600
250-999	32,400	55,300
1,000-1,999	33,500	63,500
2,000-4,999	35,700	70,900
5,000-9,999	36,200	72,200
10,000 or more	37,000	72,400
Percent of K-12 students in district who were approved for free or reduced-price lunches		
0-34	35,100	67,000
35-49	32,300	57,600
50-74	32,600	55,700
75 or more	35,700	56,700
District did not participate in free or reduced-price lunch program	35,100	55,800

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.

Table 4. Percentage of public school districts that offered various benefits to teachers, by selected public school district characteristics: 2007-08

Selected public school district characteristic	General medical insurance	Dental insurance	Group life insurance	Retirement plan <sup>1</sup>		Tuition reimbursement	Housing, housing subsidies, or rent assistance	Subsidized meals	Subsidized transportation
				Defined-benefit	Defined-contribution				
All public school districts	98.0	85.2	80.0	83.0	65.9	44.6	3.4	3.8	2.9
District size									
1 school	96.6	80.2	70.2	78.4	65.5	45.2	5.9	6.6	2.8
2-3 schools	97.6	81.0	79.1	81.3	62.4	45.9	2.9	3.3	2.6
4-5 schools	99.4	88.3	83.5	86.0	66.4	44.5	2.4	3.6	3.7
6-9 schools	99.0	92.3	88.9	86.1	69.2	44.4	0.8	1.2 !	2.4
10-19 schools	99.5	94.0	90.3	90.3	69.2	41.3	2.0	1.6	3.4
20 or more schools	99.7	96.9	96.1	93.7	72.2	40.6	2.6	0.7	2.7
Community type									
City	99.9	90.7	81.2	82.5	68.8	45.2	0.6 !	4.3	3.4
Suburban	99.2	95.2	84.8	83.2	66.3	53.1	0.3	0.7 !	1.4
Town	99.5	88.0	85.8	83.4	68.9	39.8	1.8 !	4.8	3.5
Rural	96.4	78.1	75.3	83.0	63.9	42.5	6.2	4.7	3.2
District K-12 enrollment									
Less than 250	93.6	75.5	64.7	78.8	61.0	42.9	10.1	9.1	3.3
250-999	98.6	80.5	77.9	78.6	64.4	43.8	2.4	3.5	2.9
1,000-1,999	99.5	89.2	84.5	86.1	67.6	47.3	1.0	2.8	2.1
2,000-4,999	99.5	93.3	88.1	88.0	70.0	48.0	1.2	1.5	3.7
5,000-9,999	99.8	96.0	91.7	89.1	68.5	41.9	0.4	1.1 !	1.8
10,000 or more	99.7	96.9	94.1	91.9	72.0	39.5	2.1	0.6	2.4
Percent of K-12 students in district who were approved for free or reduced-price lunches									
0-34	98.8	88.0	83.8	82.9	67.5	50.5	1.0	2.1	2.3
35-49	98.9	83.6	80.2	83.7	64.9	42.6	2.5	4.1	3.7
50-74	98.2	82.8	81.7	84.3	65.9	37.2	5.4	4.7	3.6
75 or more	98.2	88.9	75.5	85.1	62.5	40.7	4.9	7.7	2.7
District did not participate in free or reduced-price lunch program	91.5	78.4	63.5	75.9	66.0	49.3	8.4 !	3.5 !	1.8 !

! Interpret data with caution. The standard error for this estimate is equal to 30 percent or more of the estimate's value.

<sup>1</sup> Districts can offer both defined-benefit and defined-contribution retirement plans. A defined-benefit retirement plan is a plan in which benefits are invested in a group trust fund which employees do not control. Benefits are based on a formula that takes into account employee's length of employment and earnings. Most state retirement plans are defined-benefit. A defined-contribution retirement plan is a plan where contributions are paid into an individually-controlled retirement account. Funds available at retirement depend on the nature of the investment and returns. 403(b) plans are defined-contribution.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.

Table 5. Percentage of public school districts that used pay incentives for various reasons, by selected public school district characteristics: 2007-08

Selected public school district characteristic	To reward teachers who have attained National Board for Professional Teaching Standards certification	To reward excellence in teaching	To recruit or retain teachers to teach in a less desirable location	To recruit or retain teachers to teach in fields of shortage
All public school districts	24.5	10.2	5.7	15.4
District size				
1 school	17.9	20.8	6.4	11.2
2-3 schools	18.2	4.4	3.7	12.3
4-5 schools	21.8	3.9	3.8	15.2
6-9 schools	32.2	3.8	3.8	17.7
10-19 schools	45.3	8.2	9.0	26.7
20 or more schools	58.2	15.0	18.2	38.3
Community type				
City	35.4	35.3	13.0	23.3
Suburban	26.5	6.9	2.4	11.8
Town	27.0	7.5	5.9	19.3
Rural	19.6	5.7	4.9	13.4
District K-12 enrollment				
Less than 250	16.3	18.3	8.5	11.7
250-999	16.6	11.9	4.0	12.4
1,000-1,999	22.8	4.9	4.4	13.8
2,000-4,999	33.3	3.4	3.0	16.6
5,000-9,999	42.0	7.0	6.9	25.6
10,000 or more	57.3	14.3	16.5	36.4
Percent of K-12 students in district who were approved for free or reduced-price lunches				
0-34	22.2	6.5	2.2	12.2
35-49	24.8	6.9	4.0	15.2
50-74	26.2	11.7	9.6	19.8
75 or more	34.1	17.8	11.3	21.6
District did not participate in free or reduced-price lunch program	17.2	21.2	6.8 !	10.4

! Interpret data with caution. The standard error for this estimate is equal to 30 percent or more of the estimate's value.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.

Table 6. Average number of public school teachers who were newly hired for grades K-12 and comparable ungraded levels, percentage of districts that offered free training for teachers in fields with current or anticipated shortages, and percentage of districts that used various methods for recruiting new teachers, by selected public school district characteristics: 2007-08

Selected public school district characteristic	Average number of teachers who were newly hired for grades K-12 and comparable ungraded levels	Percent of districts that offered free training for teachers in fields with current or anticipated shortages	Percent of districts that used various methods for recruiting new teachers			
			Signing bonuses	Forgiveness of student loan(s) funded by the district	Relocation assistance	Finder's fee to existing staff for new teacher referrals
All public school districts	22.4	30.7	6.8	2.2	3.6	1.5
District size						
1 school	3.3	33.5	5.3	2.6	3.0	3.4
2-3 schools	6.9	28.9	5.8	1.3	2.9	0.4
4-5 schools	13.3	29.5	5.9	0.9	2.2	0.3 !
6-9 schools	25.1	24.7	5.8	2.8 !	3.7	0.6 !
10-19 schools	51.7	31.7	13.7	3.6	6.5	1.9
20 or more schools	217.8	41.9	18.6	5.7	10.9	2.1
Community type						
City	47.2	42.6	9.3	4.8	4.4	3.5 !
Suburban	40.0	22.9	2.9	1.0	1.5	2.4
Town	16.5	30.3	7.1	1.2	4.2	1.9 !
Rural	9.8	30.9	7.8	2.5	4.1	0.5 !
District K-12 enrollment						
Less than 250	2.1	35.7	6.2	3.2	4.1	3.4
250-999	5.0	31.3	6.2	1.8	2.8	1.3 !
1,000-1,999	10.7	26.5	5.0	1.0	2.3	0.5 !
2,000-4,999	23.1	26.7	5.4	2.0	3.2	0.6 !
5,000-9,999	52.5	26.0	11.5	2.8	5.4	2.0
10,000 or more	206.2	40.3	18.3	5.5	9.4	2.2
Percent of K-12 students in district who were approved for free or reduced-price lunches						
0-34	22.5	22.1	4.3	0.8	2.5	0.4
35-49	27.5	31.0	6.5	1.4	4.3	0.9
50-74	25.1	36.6	10.5	2.7	4.2	1.7 !
75 or more	20.4	41.0	11.1	9.4	6.5	2.0 !
District did not participate in free or reduced-price lunch program	4.6	38.5	3.2 !	0.3 !	1.6 !	7.1 !

! Interpret data with caution. The standard error for this estimate is equal to 30 percent or more of the estimate's value.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.

Table 7. Percentage distribution of public school districts, by specific agreements with teachers' associations or unions and selected public school district characteristics: 2007-08

Selected public school district characteristic	Percentage distribution of districts that had a specific agreement with a teachers' association or union		
	Collective bargaining <sup>1</sup>	Meet-and-confer <sup>2</sup>	No specific agreement <sup>3</sup>
All public school districts	53.5	10.9	35.6
District size			
1 school	33.3	9.0	57.7
2-3 schools	63.6	12.0	24.4
4-5 schools	63.5	11.5	25.0
6-9 schools	66.0	10.8	23.1
10-19 schools	58.3	12.6	29.0
20 or more schools	56.7	12.4	31.0
Community type			
City	30.4	8.6	60.9
Suburban	73.9	10.2	15.8
Town	55.9	11.7	32.3
Rural	50.0	11.5	38.5
District K-12 enrollment			
Less than 250	29.5	9.2	61.3
250-999	51.1	11.4	37.5
1,000-1,999	67.2	11.0	21.9
2,000-4,999	66.8	10.9	22.3
5,000-9,999	63.9	11.6	24.5
10,000 or more	59.7	12.9	27.4
Percent of K-12 students in district who were approved for free or reduced-price lunches			
0-34	74.5	11.4	14.1
35-49	57.2	12.2	30.6
50-74	36.7	11.5	51.9
75 or more	29.4	7.2	63.4
District did not participate in free or reduced-price lunch program	29.1	8.5 !	62.4

! Interpret data with caution. The standard error for this estimate is equal to 30 percent or more of the estimate's value.

<sup>1</sup> Collective bargaining agreements are legally-binding agreements.

<sup>2</sup> Meet-and-confer discussions are for the purpose of reaching non-legally-binding agreements.

<sup>3</sup> This category includes both no agreements and other agreements that do not meet the precise legal definitions of collective bargaining and meet-and-confer agreements.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.

Table 8. Average number of public school teachers and average number of public school teachers who were dismissed in the previous year or did not have their contracts renewed based on poor performance, by tenure status of teachers and selected public school district characteristics: 2007-08

Selected public school district characteristic	Average number of teachers	Average number of teachers in public school districts who were dismissed or did not have their contracts renewed	Average number of teachers in public schools who were dismissed or did not have their contracts renewed, by tenure status	
			Teachers without tenure <sup>1</sup>	Teachers with tenure <sup>2</sup>
All public school districts	211.4	4.4	1.4	3.0
District size				
1 school	25.4	0.8	0.4	0.5
2-3 schools	68.7	1.9	0.4	1.5
4-5 schools	133.1	3.1	0.8	2.3
6-9 schools	243.3	7.1	1.9	5.3
10-19 schools	470.1	11.9	2.8	9.0
20 or more schools	2061.0	27.5	13.1	14.4
Community type				
City	463.4	7.9	3.1	4.8
Suburban	378.3	7.5	2.8	4.7
Town	152.7	3.9	0.7	3.2
Rural	87.8	2.2	0.6	1.6
District K-12 enrollment				
Less than 250	14.1	0.8	0.3	0.6
250-999	44.8	1.3	0.4	0.9
1,000-1,999	107.1	3.1	0.7	2.3
2,000-4,999	231.0	6.1	1.5	4.6
5,000-9,999	477.8	9.1	3.2	5.9
10,000 or more	1939.2	30.1	12.2	17.9
Percent of K-12 students in district who were approved for free or reduced-price lunches				
0-34	224.5	4.9	1.2	3.6
35-49	260.2	3.7	1.3	2.4
50-74	229.4	4.7	1.6	3.1
75 or more	170.4	6.1	2.7	3.4
District did not participate in free or reduced-price lunch program	38.4	1.0	0.4	0.6 !

! Interpret data with caution. The standard error for this estimate is equal to 30 percent or more of the estimate's value.

<sup>1</sup> Teachers who are often relatively inexperienced or novices. This includes teachers in their initial induction year, teachers who are on year-to-year contracts, and those teachers who have not entered a more permanent status, traditionally referred to as tenure.

<sup>2</sup> Teachers who have satisfactorily completed a probationary period and were given a contract as a career or permanent employee.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.

Table 9. Percentage of public school districts that granted high school diplomas, and among those that granted diplomas, graduation requirements for standard diplomas, by selected public school district characteristics: 2007-08

Selected public school district characteristic	Percent of districts that grant high school diplomas	Among districts that granted high school diplomas, the average number of years of instruction in various subject areas needed for a standard diploma <sup>1</sup>					
		English or language arts	Mathematics	Computer science	Social sciences, social studies (e.g., history, geography, economics)	Physical or biological sciences	Foreign language
All public school districts	75.9	3.9	3.0	1.0	3.3	2.7	1.6
District size							
1 school	46.9	3.9	3.0	1.1	3.2	2.6	1.8
2-3 schools	86.2	4.0	3.0	1.0	3.2	2.7	1.6
4-5 schools	90.8	3.9	3.0	1.0	3.3	2.7	1.6
6-9 schools	90.7	4.0	3.0	0.9	3.2	2.8	1.6
10-19 schools	91.8	3.9	3.0	1.0	3.3	2.7	1.6
20 or more schools	94.7	3.9	3.0	1.0	3.2	2.7	1.8
Community type							
City	53.4	4.0	3.0	1.1	3.3	2.7	2.0
Suburban	70.1	4.0	3.0	1.0	3.3	2.7	1.6
Town	85.9	3.9	3.0	1.0	3.2	2.7	1.5
Rural	81.0	3.9	3.0	1.0	3.3	2.7	1.6
District K-12 enrollment							
Less than 250	48.5	3.9	3.0	1.2	3.3	2.6	1.7
250-999	71.2	3.9	3.0	1.1	3.3	2.7	1.7
1,000-1,999	90.1	4.0	3.0	1.0	3.2	2.7	1.6
2,000-4,999	90.3	4.0	3.0	0.9	3.3	2.8	1.6
5,000-9,999	91.5	4.0	3.0	1.0	3.3	2.7	1.6
10,000 or more	95.1	3.9	3.0	1.0	3.2	2.7	1.7
Percent of K-12 students in district who were approved for free or reduced-price lunches							
0-34	80.8	4.0	2.9	1.0	3.2	2.7	1.5
35-49	87.5	3.9	3.0	1.0	3.3	2.7	1.7
50-74	80.3	3.9	3.1	1.1	3.3	2.8	1.7
75 or more	57.9	4.0	3.1	1.1	3.2	2.7	1.6
District did not participate in free or reduced-price lunch program	36.1	3.9	3.1	1.0	3.3	2.7	2.0

<sup>1</sup> Districts that do not have a graduation requirement for a particular subject area are excluded from the computation of the average for that particular subject area.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.



Table 10. Among districts with more than one school, percentage of public school districts that had salary schedules for principals and average lowest and highest yearly base salaries paid to all full-time principals, by selected public school district characteristics: 2007-08

Selected public school district characteristic	Percent with salary schedules for principals	Average lowest and highest yearly base salaries of full-time principals	
		Base salary of the lowest paid	Base salary of the highest paid
All districts with more than one school	50.9	\$73,300	\$88,600
District size			
2-3 schools	32.3	70,100	79,200
4-5 schools	41.7	73,100	87,300
6-9 schools	65.7	77,600	96,500
10-19 schools	82.4	75,800	98,300
20 or more schools	90.8	75,300	105,800
Community type			
City	87.8	79,800	104,200
Suburban	60.8	88,600	109,800
Town	53.3	68,800	83,700
Rural	38.2	66,000	76,600
District K-12 enrollment			
Less than 250	24.5	64,600	68,000
250-999	28.7	65,700	73,800
1,000-1,999	42.8	72,500	86,500
2,000-4,999	63.4	79,400	97,400
5,000-9,999	77.3	79,900	104,200
10,000 or more	91.4	78,200	108,300
Percent of K-12 students in district who were approved for free or reduced-price lunches			
0-34	46.1	79,300	96,300
35-49	48.7	69,500	84,000
50-74	58.8	66,000	79,700
75 or more	58.5	66,300	79,900
District did not participate in free or reduced-price lunch program	50.9	99,100	108,500

NOTE: Districts with only one school, including single traditional public schools and public charter schools that operate independently of a regular school district, were not asked about principal salary schedules, specific agreements with principal unions, principal hiring, number of contract days for principals, principal tenure, or training programs for aspiring school administrators. Estimates in this table are based on 68 percent of all districts.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.

Table 11. Among districts with more than one school, percentage distribution of public school districts, by specific agreements with principals' associations or unions and selected public school district characteristics: 2007-08

Selected public school district characteristic	Percentage distribution of districts that had a specific agreement with a principals' association or union		
	Collective bargaining <sup>1</sup>	Meet-and-confer <sup>2</sup>	No specific agreement <sup>3</sup>
All districts with more than one school	15.5	10.4	74.1
District size			
2-3 schools	11.6	6.8	81.6
4-5 schools	15.2	10.1	74.7
6-9 schools	21.5	11.3	67.2
10-19 schools	17.3	14.6	68.1
20 or more schools	17.7	21.9	60.5
Community type			
City	18.3	22.0	59.8
Suburban	28.8	14.8	56.4
Town	11.8	9.3	78.9
Rural	9.5	6.5	84.0
District K-12 enrollment			
Less than 250	3.3	1.7	95.0
250-999	7.2	4.8	88.1
1,000-1,999	16.8	10.8	72.4
2,000-4,999	21.9	12.4	65.7
5,000-9,999	22.4	15.5	62.1
10,000 or more	17.6	20.0	62.4
Percent of K-12 students in district who were approved for free or reduced-price lunches			
0-34	22.1	11.3	66.6
35-49	14.9	11.4	73.7
50-74	8.0	8.3	83.7
75 or more	5.3	8.4	86.4
District did not participate in free or reduced-price lunch program	9.3 !	10.6 !	80.0

! Interpret data with caution. The standard error for this estimate is equal to 30 percent or more of the estimate's value.

<sup>1</sup> Collective bargaining agreements are legally-binding agreements.

<sup>2</sup> Meet-and-confer discussions are for the purpose of reaching non-legally-binding agreements.

<sup>3</sup> This category includes both no agreements and other agreements that do not meet the precise legal definitions of collective bargaining and meet-and-confer agreements.

NOTE: Districts with only one school, including single traditional public schools and public charter schools that operate independently of a regular school district, were not asked about principal salary schedules, specific agreements with principal unions, principal hiring, number of contract days for principals, principal tenure, or training programs for aspiring school administrators. Estimates in this table are based on 68 percent of all districts. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.

Table 12. Among districts with more than one school, percentage of principals who were newly hired, average number of days in the normal contract year for principals, percentage of districts that had a tenure system for principals, and percentage of districts that had a training program for aspiring school administrators, by selected public school district characteristics: 2007-08

Selected public school district characteristic	Percent of principals who were newly hired	Average number of days in the normal contract year for principals <sup>1</sup>	Percent of districts that had a tenure system for principals	Percent of districts that had a training program for aspiring school administrators
All districts with more than one school	9.3	227	25.4	23.8
District size				
2-3 schools	14.0	226	25.2	14.2
4-5 schools	11.3	228	24.1	18.9
6-9 schools	11.2	228	27.0	23.2
10-19 schools	10.0	227	26.6	42.1
20 or more schools	6.1	228	24.2	66.8
Community type				
City	6.8	227	27.9	51.6
Suburban	8.3	232	36.1	30.0
Town	11.9	225	22.3	21.4
Rural	11.7	226	20.5	17.1
District K-12 enrollment				
Less than 250	11.3 !	217	15.3	11.8
250-999	14.7	223	18.4	12.9
1,000-1,999	12.4	230	29.5	18.0
2,000-4,999	10.8	230	29.4	24.2
5,000-9,999	9.7	229	29.7	38.8
10,000 or more	6.3	228	24.2	66.6
Percent of K-12 students in district who were approved for free or reduced-price lunches				
0-34	9.4	229	31.5	20.9
35-49	8.6	225	24.9	26.0
50-74	9.6	226	18.2	25.8
75 or more	8.9	227	17.7	29.7
District did not participate in free or reduced-price lunch program	10.8	239	15.9 !	17.7 !

! Interpret data with caution. The standard error for this estimate is equal to 30 percent or more of the estimate's value.

<sup>1</sup> Includes professional development, student contract days, and other days covered in a typical contract.

NOTE: Districts with only one school, including single traditional public schools and public charter schools that operate independently of a regular school district, were not asked about principal salary schedules, specific agreements with principal unions, principal hiring, number of contract days for principals, principal tenure, or training programs for aspiring school administrators. Estimates in this table are based on 68 percent of all districts.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.

## **Appendix A: Standard Error Tables**

Table A-1. Standard errors for Table 1: Number of public school districts, by selected public school district characteristics: 2007-08

Selected public school district characteristic	Number of public school districts
All public school districts	80
District size	
1 school	153
2-3 schools	124
4-5 schools	85
6-9 schools	70
10-19 schools	54
20 or more schools	18
Community type	
City	65
Suburban	82
Town	76
Rural	100
District K-12 enrollment	
Less than 250	165
250-999	139
1,000-1,999	94
2,000-4,999	85
5,000-9,999	69
10,000 or more	23
Percent of K-12 students in district who were approved for free or reduced-price lunches	
0-34	118
35-49	123
50-74	113
75 or more	100
District did not participate in free or reduced-price lunch program	107

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.

Table A-2. Standard errors for Table 2: Percentage of public school districts that had salary schedules for teachers and among those that had salary schedules, the average yearly teacher base salary, by various levels of degrees and experience and selected public school district characteristics: 2007-08

Selected public school district characteristic	Percent with salary schedules for teachers	Among districts that had salary schedules, average yearly teacher base salary				
		Bachelor's degree and no teaching experience	Bachelor's degree and 10 years of teaching experience	Master's degree and no teaching experience	Master's degree and 10 years of teaching experience	Highest possible step on the salary schedule
All public school districts	0.48	80	150	100	170	220
District size						
1 school	1.40	270	520	330	570	810
2-3 schools	0.39	220	290	260	350	620
4-5 schools	0.53	190	280	260	380	560
6-9 schools	0.33	170	270	190	340	540
10-19 schools	0.34	150	240	160	290	440
20 or more schools	0.01	90	150	90	180	260
Community type						
City	2.60	220	490	300	560	620
Suburban	0.94	170	230	200	290	540
Town	1.54	180	210	200	250	310
Rural	0.44	140	230	170	270	390
District K-12 enrollment						
Less than 250	1.89	410	690	440	710	1,050
250-999	0.83	190	260	230	350	530
1,000-1,999	0.47	220	340	300	430	700
2,000-4,999	0.43	160	240	180	290	470
5,000-9,999	0.13	210	320	210	380	610
10,000 or more	0.08	110	200	120	230	300
Percent of K-12 students in district who were approved for free or reduced-price lunches						
0-34	0.47	160	270	180	300	450
35-49	1.00	150	200	180	280	430
50-74	1.16	130	240	190	300	400
75 or more	2.76	220	500	290	550	910
District did not participate in free or reduced-price lunch program	3.25	580	960	740	1,170	1,760

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.

Table A-3. Standard errors for Table 3: Average lowest and highest yearly base salaries paid to full-time teachers among all districts, by selected public school district characteristics: 2007-08

Selected public school district characteristic	Base salary of the lowest paid	Base salary of the highest paid
All public school districts	180	180
District size		
1 school	600	650
2-3 schools	220	610
4-5 schools	220	620
6-9 schools	180	570
10-19 schools	160	430
20 or more schools	90	260
Community type		
City	270	600
Suburban	190	590
Town	220	500
Rural	390	280
District K-12 enrollment		
Less than 250	940	920
250-999	200	490
1,000-1,999	230	650
2,000-4,999	180	520
5,000-9,999	220	690
10,000 or more	110	320
Percent of K-12 students in district who were approved for free or reduced-price lunches		
0-34	280	400
35-49	160	430
50-74	180	430
75 or more	1,560	1,240
District did not participate in free or reduced-price lunch program	590	1,580

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.

Table A-4. Standard errors for Table 4: Percentage of public school districts that offered various benefits to teachers, by selected public school district characteristics: 2007-08

Selected public school district characteristic	General medical insurance	Dental insurance	Group life insurance	Retirement plan		Tuition reimbursement	Housing, housing subsidies, or rent assistance	Subsidized meals	Subsidized transportation
				Defined-benefit	Defined-contribution				
All public school districts	0.28	0.54	0.86	0.63	0.85	0.72	0.34	0.34	0.23
District size									
1 school	0.61	1.18	2.15	1.40	2.16	1.89	0.86	0.74	0.49
2-3 schools	0.84	1.44	1.41	1.57	1.80	1.75	0.55	0.66	0.43
4-5 schools	0.30	1.13	1.33	1.29	1.49	1.76	0.69	1.07	0.64
6-9 schools	0.39	0.84	0.98	1.11	1.41	1.33	0.08	0.39	0.48
10-19 schools	0.09	0.62	0.90	1.04	1.25	1.47	0.14	0.31	0.33
20 or more schools	0.01	0.35	0.43	0.53	0.86	0.75	0.11	0.03	0.16
Community type									
City	0.02	1.72	1.90	1.96	2.20	2.69	0.28	0.93	0.62
Suburban	0.33	0.67	1.50	1.40	1.89	1.53	0.06	0.25	0.39
Town	0.11	1.03	1.57	1.41	1.48	1.80	0.62	0.99	0.54
Rural	0.56	0.98	1.44	0.97	1.44	1.31	0.68	0.50	0.37
District K-12 enrollment									
Less than 250	1.28	1.92	3.28	1.90	3.09	2.37	1.33	1.21	0.73
250-999	0.39	1.08	1.43	1.57	1.44	1.46	0.51	0.58	0.43
1,000-1,999	0.15	0.95	1.28	1.47	1.78	1.67	0.16	0.80	0.44
2,000-4,999	0.13	0.55	1.12	0.90	1.42	1.30	0.23	0.32	0.57
5,000-9,999	0.06	0.70	1.07	1.15	1.50	1.60	0.10	0.38	0.19
10,000 or more	0.01	0.37	0.70	0.72	0.84	0.85	0.10	0.03	0.15
Percent of K-12 students in district who were approved for free or reduced-price lunches									
0-34	0.38	0.76	1.19	1.06	1.25	1.31	0.29	0.38	0.33
35-49	0.36	1.35	1.67	1.27	1.78	1.72	0.73	0.74	0.64
50-74	0.46	1.50	1.41	1.40	1.61	1.48	0.74	0.85	0.46
75 or more	0.68	1.57	4.41	2.63	3.81	3.99	0.82	1.59	0.74
District did not participate in free or reduced-price lunch program	2.51	3.22	3.93	3.02	4.15	4.38	2.77	1.21	0.69

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.



Table A-5. Standard errors for Table 5: Percentage of public school districts that used pay incentives for various reasons, by selected public school district characteristics: 2007-08

Selected public school district characteristic	To reward teachers who have attained National Board for Professional Teaching Standards certification	To reward excellence in teaching	To recruit or retain teachers to teach in a less desirable location	To recruit or retain teachers to teach in fields of shortage
All public school districts	0.80	0.51	0.34	0.57
District size				
1 school	2.06	1.37	0.93	1.28
2-3 schools	1.20	0.63	0.45	1.01
4-5 schools	1.29	0.77	0.52	1.29
6-9 schools	1.28	0.47	0.50	1.22
10-19 schools	1.58	0.68	0.60	1.19
20 or more schools	0.89	0.47	0.56	0.77
Community type				
City	2.57	2.97	1.73	2.42
Suburban	1.46	0.93	0.33	0.82
Town	1.07	1.10	0.78	1.52
Rural	1.08	0.47	0.44	0.77
District K-12 enrollment				
Less than 250	2.63	1.94	1.43	1.66
250-999	1.24	1.01	0.46	0.86
1,000-1,999	1.50	0.69	0.65	1.31
2,000-4,999	1.21	0.32	0.34	1.10
5,000-9,999	2.05	0.73	0.55	1.37
10,000 or more	1.05	0.51	0.50	0.89
Percent of K-12 students in district who were approved for free or reduced-price lunches				
0-34	0.92	0.67	0.17	0.70
35-49	1.21	0.96	0.49	0.90
50-74	1.19	1.26	1.03	1.55
75 or more	3.87	2.12	1.66	2.40
District did not participate in free or reduced-price lunch program	2.76	3.75	2.16	2.65

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.

Table A-6. Standard errors for Table 6: Average number of public school teachers who were newly hired for grades K-12 and comparable ungraded levels, percentage of districts that offered free training for teachers in fields with current or anticipated shortages, and percentage of districts that used various methods for recruiting new teachers, by selected public school district characteristics: 2007-08

Selected public school district characteristic	Average number of teachers who were newly hired for grades K-12 and comparable ungraded levels	Percent of districts that offered free training for teachers in fields with current or anticipated shortages	Percent of districts that used various methods for recruiting new teachers			
			Signing bonuses	Forgiveness of student loan(s) funded by the district	Relocation assistance	Finder's fee to existing staff for new teacher referrals
All public school districts	0.37	0.72	0.36	0.24	0.23	0.21
District size						
1 school	0.11	1.82	0.74	0.55	0.61	0.60
2-3 schools	0.21	1.47	0.50	0.22	0.40	0.11
4-5 schools	0.38	1.96	0.85	0.19	0.26	0.16
6-9 schools	0.64	1.20	0.67	0.93	0.38	0.25
10-19 schools	0.98	1.21	0.85	0.43	0.52	0.27
20 or more schools	3.00	0.80	0.71	0.25	0.40	0.15
Community type						
City	1.80	2.56	1.04	1.04	0.86	1.08
Suburban	1.20	1.64	0.34	0.20	0.15	0.66
Town	0.74	1.66	0.74	0.16	0.36	0.66
Rural	0.19	1.19	0.54	0.41	0.43	0.16
District K-12 enrollment						
Less than 250	0.11	2.30	1.01	0.74	0.77	0.68
250-999	0.13	1.44	0.63	0.48	0.39	0.39
1,000-1,999	0.26	1.64	0.52	0.19	0.36	0.21
2,000-4,999	0.37	1.35	0.44	0.30	0.38	0.22
5,000-9,999	1.11	1.32	1.26	0.45	0.50	0.36
10,000 or more	3.01	0.93	0.78	0.38	0.36	0.13
Percent of K-12 students in district who were approved for free or reduced-price lunches						
0-34	0.52	0.97	0.29	0.11	0.28	0.09
35-49	0.89	1.75	0.54	0.22	0.64	0.21
50-74	0.80	1.61	0.98	0.32	0.45	0.58
75 or more	1.41	2.70	1.53	2.05	0.90	0.96
District did not participate in free or reduced-price lunch program	0.47	3.89	1.28	0.31	1.12	2.18

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.

Table A-7. Standard errors for Table 7: Percentage distribution of public school districts, by specific agreements with teachers' associations or unions and selected public school district characteristics: 2007-08

Selected public school district characteristic	Percentage distribution of districts that had a specific agreement with a teachers' association or union		
	Collective bargaining	Meet-and-confer	No specific agreement
All public school districts	0.73	0.45	0.67
District size			
1 school	1.89	1.03	1.85
2-3 schools	1.58	1.02	1.18
4-5 schools	1.75	1.03	1.53
6-9 schools	1.34	0.80	1.13
10-19 schools	1.45	0.70	1.44
20 or more schools	0.83	0.34	0.82
Community type			
City	1.60	1.01	1.74
Suburban	1.59	1.48	1.23
Town	1.58	0.96	1.58
Rural	1.27	0.57	1.29
District K-12 enrollment			
Less than 250	2.32	1.27	2.45
250-999	1.43	0.76	1.40
1,000-1,999	1.72	1.23	1.37
2,000-4,999	1.13	0.67	0.92
5,000-9,999	1.64	0.83	1.61
10,000 or more	0.91	0.52	0.90
Percent of K-12 students in district who were approved for free or reduced-price lunches			
0-34	1.16	0.68	0.96
35-49	1.67	0.99	1.63
50-74	1.27	0.73	1.16
75 or more	2.97	0.80	3.16
District did not participate in free or reduced-price lunch program	3.27	2.65	3.65

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.

Table A-8. Standard errors for Table 8: Average number of public school teachers and average number of public school teachers who were dismissed in the previous year or did not have their contracts renewed based on poor performance, by tenure status of teachers and selected public school district characteristics: 2007-08

Selected public school district characteristic	Average number of teachers	Average number of teachers in public school districts who were dismissed or did not have their contracts renewed	Average number of teachers in public schools who were dismissed or did not have their contracts renewed, by tenure status	
			Teachers without tenure	Teachers with tenure
All public school districts	3.23	0.15	0.03	0.14
District size				
1 school	0.78	0.09	0.03	0.08
2-3 schools	1.44	0.19	0.03	0.19
4-5 schools	2.68	0.28	0.06	0.28
6-9 schools	4.10	0.71	0.18	0.62
10-19 schools	5.98	1.29	0.15	1.30
20 or more schools	26.53	1.16	0.41	1.02
Community type				
City	17.16	0.67	0.11	0.60
Suburban	10.36	0.52	0.17	0.44
Town	6.06	0.33	0.04	0.32
Rural	1.39	0.14	0.04	0.13
District K-12 enrollment				
Less than 250	0.48	0.11	0.04	0.09
250-999	0.73	0.13	0.02	0.12
1,000-1,999	1.16	0.33	0.10	0.27
2,000-4,999	2.27	0.45	0.08	0.44
5,000-9,999	4.48	0.94	0.35	0.87
10,000 or more	27.58	1.61	0.40	1.52
Percent of K-12 students in district who were approved for free or reduced-price lunches				
0-34	4.53	0.29	0.05	0.28
35-49	7.81	0.23	0.06	0.21
50-74	6.78	0.34	0.07	0.32
75 or more	12.37	0.68	0.30	0.48
District did not participate in free or reduced-price lunch program	4.04	0.25	0.08	0.23

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.

Table A-9. Standard errors for Table 9: Percentage of public school districts that granted high school diplomas, and among those that granted diplomas, graduation requirements for standard diplomas, by selected public school district characteristics: 2007-08

Selected public school district characteristic	Percent of districts that grant high school diplomas	Among districts that granted high school diplomas, the average number of years of instruction in various subject areas needed for a standard diploma					
		English or language arts	Mathematics	Computer science	Social sciences, social studies (e.g., history, geography, economics)	Physical or biological sciences	Foreign language
All public school districts	0.88	#	0.01	0.01	0.01	0.01	0.02
District size							
1 school	1.75	0.01	0.03	0.03	0.03	0.03	0.06
2-3 schools	1.75	0.01	0.02	0.02	0.02	0.02	0.05
4-5 schools	1.11	0.01	0.02	0.03	0.02	0.02	0.05
6-9 schools	1.28	0.01	0.02	0.02	0.02	0.02	0.03
10-19 schools	1.20	0.01	0.02	0.04	0.02	0.02	0.03
20 or more schools	0.57	0.01	0.01	0.01	0.01	0.01	0.01
Community type							
City	2.57	0.01	0.04	0.04	0.04	0.05	0.06
Suburban	2.06	0.01	0.02	0.03	0.02	0.02	0.03
Town	1.91	0.01	0.02	0.03	0.02	0.02	0.04
Rural	1.12	0.01	0.01	0.02	0.01	0.01	0.03
District K-12 enrollment							
Less than 250	2.50	0.02	0.03	0.03	0.04	0.04	0.05
250-999	1.60	0.01	0.02	0.02	0.02	0.02	0.04
1,000-1,999	1.24	0.01	0.01	0.03	0.03	0.02	0.06
2,000-4,999	1.12	0.01	0.02	0.02	0.02	0.02	0.03
5,000-9,999	1.43	0.01	0.02	0.05	0.02	0.03	0.04
10,000 or more	0.73	0.01	0.01	0.01	0.02	0.01	0.02
Percent of K-12 students in district who were approved for free or reduced-price lunches							
0-34	1.34	0.01	0.01	0.02	0.02	0.02	0.03
35-49	1.60	0.01	0.01	0.03	0.02	0.02	0.05
50-74	1.70	0.01	0.02	0.02	0.01	0.02	0.03
75 or more	3.46	0.02	0.03	0.03	0.03	0.04	0.04
District did not participate in free or reduced-price lunch program	3.66	0.04	0.08	0.05	0.09	0.10	0.15

# Rounds to zero.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.

Table A-10. Standard errors for Table 10: Among districts with more than one school, percentage of public school districts that had salary schedules for principals and average lowest and highest yearly base salaries paid to all full-time principals, by selected public school district characteristics: 2007-08

Selected public school district characteristic	Percent with salary schedules for principals	Average lowest and highest yearly base salaries of full-time principals	
		Base salary of the lowest paid	Base salary of the highest paid
All districts with more than one school	0.73	350	360
District size			
2-3 schools	1.52	850	930
4-5 schools	1.79	660	830
6-9 schools	1.56	610	720
10-19 schools	1.27	490	570
20 or more schools	0.54	220	260
Community type			
City	1.24	680	560
Suburban	1.44	790	800
Town	1.58	390	490
Rural	1.12	520	560
District K-12 enrollment			
Less than 250	5.42	3,780	3,720
250-999	1.74	760	920
1,000-1,999	1.90	730	790
2,000-4,999	1.33	630	660
5,000-9,999	1.64	600	650
10,000 or more	0.69	330	360
Percent of K-12 students in district who were approved for free or reduced-price lunches			
0-34	1.21	570	660
35-49	1.53	390	520
50-74	1.78	540	680
75 or more	3.31	1,350	1,680
District did not participate in free or reduced-price lunch program	9.49	4,850	4,200

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.

Table A-11. Standard errors for Table 11: Among districts with more than one school, percentage distribution of public school districts, by specific agreements with principals' associations or unions and selected public school district characteristics: 2007-08

Selected public school district characteristic	Percentage distribution of districts that had a specific agreement with a principals' association or union		
	Collective bargaining	Meet-and-confer	No specific agreement
All districts with more than one school	0.47	0.37	0.54
District size			
2-3 schools	1.07	0.70	1.21
4-5 schools	1.22	0.94	1.53
6-9 schools	1.15	0.94	1.27
10-19 schools	1.06	0.91	1.39
20 or more schools	0.55	0.59	0.75
Community type			
City	1.43	1.30	1.59
Suburban	1.33	0.92	1.54
Town	0.94	0.74	1.24
Rural	0.77	0.53	0.84
District K-12 enrollment			
Less than 250	0.92	0.49	1.04
250-999	1.11	0.76	1.31
1,000-1,999	1.35	1.20	1.70
2,000-4,999	1.26	0.85	1.23
5,000-9,999	1.42	1.21	1.95
10,000 or more	0.67	0.71	0.86
Percent of K-12 students in district who were approved for free or reduced-price lunches			
0-34	0.87	0.64	0.93
35-49	1.08	1.00	1.35
50-74	1.06	0.69	1.22
75 or more	0.78	1.20	1.48
District did not participate in free or reduced-price lunch program	2.88	4.77	5.82

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.

Table A-12. Standard errors for Table 12: Among districts with more than one school, percentage of principals who were newly hired, average number of days in the normal contract year for principals, percentage of districts that had a tenure system for principals, and percentage of districts that had a training program for aspiring school administrators, by selected public school district characteristics: 2007-08

Selected public school district characteristic	Percent of principals who were newly hired	Average number of days in the normal contract year for principals	Percent of districts that had a tenure system for principals	Percent of districts that had a training program for aspiring school administrators
All districts with more than one school	0.17	0.4	0.64	0.69
District size				
2-3 schools	0.76	0.8	1.38	1.22
4-5 schools	0.60	0.7	1.53	1.38
6-9 schools	0.38	0.6	1.15	1.01
10-19 schools	0.27	0.5	1.24	1.31
20 or more schools	0.06	0.4	0.73	0.92
Community type				
City	0.15	0.8	2.05	1.89
Suburban	0.25	0.8	1.75	1.61
Town	0.41	0.8	1.13	1.39
Rural	0.45	0.6	0.83	1.06
District K-12 enrollment				
Less than 250	3.56	3.2	2.50	2.48
250-999	0.98	0.9	1.41	1.52
1,000-1,999	0.73	0.8	1.68	1.58
2,000-4,999	0.32	0.6	1.29	1.07
5,000-9,999	0.31	0.8	1.58	1.52
10,000 or more	0.08	0.4	0.86	0.98
Percent of K-12 students in district who were approved for free or reduced-price lunches				
0-34	0.23	0.6	1.10	0.96
35-49	0.27	0.7	1.46	1.33
50-74	0.32	0.6	1.11	1.21
75 or more	0.42	0.9	1.94	3.05
District did not participate in free or reduced-price lunch program	1.86	4.6	4.91	5.73

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.



## **Appendix B: Methodology and Technical Notes**

## Overview of the Schools and Staffing Survey

The Schools and Staffing Survey (SASS) is sponsored by the National Center for Education Statistics (NCES) of the Institute of Education Sciences within the U.S. Department of Education and is conducted by the U.S. Census Bureau. SASS is a nationally representative sample survey of public,<sup>1</sup> private, and Bureau of Indian Education-funded (BIE) K-12 schools, principals, and teachers in the 50 states and the District of Columbia. School districts associated with public schools and library media centers in public and BIE schools are also part of SASS. SASS has been conducted six times: in school years 1987-88, 1990-91, 1993-94, 1999-2000, 2003-04, and 2007-08.

The 2007-08 SASS consisted of questionnaires for five types of respondents: school districts (public), schools (public, private, and BIE), principals (public, private, and BIE), teachers (public, private, and BIE), and school library media centers (public and BIE). Modified versions of the public principal, public school, and public teacher questionnaires that incorporated wording and questions appropriate for private school settings were sent to private schools. BIE and charter schools and schools in single-school districts received a modified public school questionnaire that included both district and school items. BIE principals, teachers, and library media centers received the same questionnaires as public principals, public teachers, and public school library media centers. The Private School Questionnaire also incorporated the Private School Universe Survey (PSS) items that were collected at the same time as SASS in 2007-08.<sup>2</sup>

Information from all the surveys can be linked. For the content of the questionnaires, please see <http://nces.ed.gov/surveys/sass/question0708.asp>. Appendix C of this report provides information about how the SASS data files used to produce this report were created.

SASS was designed to produce national, regional, and state estimates for public elementary and secondary schools, teachers, principals, school districts, and school library media centers; national and regional estimates for public charter and BIE schools, teachers, principals, and school library media centers; and national, regional, and affiliation estimates for private schools, teachers, and principals. Comparisons between public and private schools and their principals and teachers are possible only at the regional and national levels, because private schools were selected for sampling by affiliation strata and region rather than by state.

The teacher survey was designed to support comparisons between new and experienced teachers (3 years or less of experience vs. more than 3 years of experience) at the state level for public school teachers and at the regional or affiliation level for private school teachers.

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<sup>1</sup> Public schools include traditional public and charter schools.

<sup>2</sup> The 2007-08 school year was a survey year for both SASS and PSS. The PSS is administered by NCES every 2 years to all private K-12 schools in the United States. The SASS Private School Questionnaire includes all of the PSS questions so that private schools selected for SASS would not be asked to complete two separate questionnaires.

This appendix includes information on all components of SASS. For additional information on the specific SASS-related topics discussed in this appendix, consult the *Documentation for the 2007-08 Schools and Staffing Survey* (Tourkin et al. forthcoming). To access additional general information on SASS or for electronic copies of the questionnaires, go to the SASS home page (<http://nces.ed.gov/surveys/sass>).

## Sampling Frames and Sample Selection

**Public and BIE schools.** The starting point for the 2007-08 SASS public school and BIE school sampling frame was the preliminary 2005-06 Common Core of Data (CCD) Nonfiscal School Universe data file. The CCD includes regular and nonregular schools (special education, alternative, vocational, or technical), public charter schools, and BIE schools. The sampling frame was adjusted from the CCD in order to fit the definition of a school eligible for SASS. To be eligible for SASS, a school was defined as an institution or part of an institution that provides classroom instruction to students; has one or more teachers to provide instruction; serves students in one or more of grades 1-12 or the ungraded equivalent; and is located in one or more buildings apart from a private home. It was possible for two or more schools to share the same building; in this case, they were treated as different schools if they had different administrators (i.e., principal or school head).

The SASS definition of a school is generally similar to the CCD definition, with some exceptions. SASS is confined to the 50 states plus the District of Columbia and excludes the other jurisdictions and Department of Defense overseas schools. The CCD includes some schools that do not offer teacher-provided classroom instruction in grades 1-12 or the ungraded equivalent. In some instances, schools in the CCD are essentially administrative units that may oversee entities that provide classroom instruction or they may only provide funding and oversight. The CCD schools with the same location, address, and phone number were collapsed during the SASS frame building on the assumption that the respondent would consider them to be one school. Because SASS allows schools to define themselves, Census Bureau staff observed that schools generally report as one entity in situations where the administration of two or more schools on the CCD is the same. A set of rules was applied in certain states to determine in which instances school records should be collapsed together. When school records were collapsed together, the student and teacher counts, grade ranges, and names as reported to the CCD were all modified to reflect the change.

Finally, additional school records were added to the sampling frame. Most of these records were for Career Technical Centers or alternative, special education, or juvenile justice facilities in California, Pennsylvania, New York, and other states. For a detailed list of frame modifications, see the *Documentation for the 2007-08 Schools and Staffing Survey* (Tourkin et al. forthcoming). After adding, deleting, and collapsing school records, the SASS public school sampling frame consisted of 90,410 traditional public schools, 3,850 public charter schools, and 180 BIE schools.

The SASS sample is a stratified probability-proportionate-to-size (PPS) sample. With the exception of BIE schools, all schools underwent multiple levels of stratification.<sup>3</sup> The sample was allocated so that national-, regional-, and state-level elementary, secondary, and combined public school estimates could be made. The sample was allocated to each state by grade range (elementary, secondary, and combined) and school type (traditional public, public charter, BIE-funded, and schools with high American Indian enrollment). For a full description of the allocation procedure, see the *Documentation for the 2007-08 Schools and Staffing Survey* (Tourkin et al. forthcoming). Within each stratum, all non-BIE schools were systematically selected using a PPS algorithm. The measure of size used for the schools was the square root of the number of full-time-equivalent teachers reported or imputed for each school during the sampling frame creation. Any school with a measure of size greater than the sampling interval (the inverse of the rate at which the sample is selected) was included in the sample with certainty and thus automatically excluded from the probability sampling operation. (For a more detailed explanation of PPS sampling, consult *Sampling Techniques* [Cochran 1977].) These sampling procedures resulted in a total public school sample of about 9,800 public schools (including both traditional public and public charter schools) and 180 BIE schools in the 2007-08 SASS.

**Private schools.** The 2007-08 SASS private school frame was based on the 2005-06 Private School Universe Survey (PSS).<sup>4</sup> The PSS is designed to generate biennial data on the total number of private schools, students, and teachers and to build a universe of private schools in the 50 states and the District of Columbia to serve as a sampling frame of private schools for NCES sample surveys, such as SASS. Prior to each PSS collection, NCES updates the list of schools to be included in the PSS by collecting membership lists from private school associations and religious denominations, as well as private school lists from state education departments. This list-frame update is intended to improve coverage of new private schools and private schools previously not included in the PSS. Since the list-frame update for the 2007-08 PSS preceded the SASS frame building, the SASS private school sample frame was augmented with the private schools discovered during the PSS list-frame update. The SASS private school frame also includes schools in the 2005-06 PSS area frame. This area frame includes schools that were overlooked in the list-building operation. In a sample of 124 geographical areas (out of 2,062), local field staff used such resources as local telephone directories, local resource guides, etc., to identify schools. The resultant lists of schools were matched to the PSS list frame, and any school that was not part of the list frame was added as an area frame school.

During the creation of the SASS private school sampling frame, schools with kindergarten as the highest grade level were deleted from the frame. Also, private school records that were missing information necessary for the SASS school sample selection were amended. For example, the school grade range was needed to stratify SASS schools during the private school sampling process. If the data on school grade range were missing, values were assigned in one of four ways: taking information from earlier PSS data, using information from the school's name (e.g., middle school) to assign a grade

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<sup>3</sup> BIE schools that fit the SASS definition of a school were included in the 2007-08 SASS public school sample with certainty.

<sup>4</sup> For more information about the PSS, see <http://nces.ed.gov/surveys/pss>.

range, calling the school to assign a specific grade range, or, as a last resort, assigning a grade level of combined (both elementary and secondary levels). Missing information on school affiliation and student and teacher counts were assigned in a similar manner. After these changes, the private school sampling frame consisted of 28,490 private schools.

Private schools were stratified by affiliation, grade level (elementary, secondary, and combined), and census region (Northeast, Midwest, South, and West). The number of private school affiliation strata was reduced from 17 in 2003-04 to 11 in 2007-08. The current affiliation strata include

- Catholic – parochial;
- Catholic – diocesan;
- Catholic – private;
- Baptist;
- Jewish;
- Lutheran;
- Seventh-Day Adventist;
- Other religious;
- Nonsectarian – regular;
- Nonsectarian – special emphasis; and
- Nonsectarian – special education.

Within each stratum, private schools in the list frame were systematically selected using a PPS algorithm. The measure of size used was the square root of the number of full-time-equivalent teachers. Any school with a measure of size larger than the sampling interval was excluded from the probability sampling process and included in the sample with certainty. About 2,940 private schools were sampled, 2,760 from the list frame and 180 from the 2005-06 PSS area frame.

**School districts.** Since the SASS sample design calls for schools to be selected first, the school district sample consists of the districts that were associated with the schools in the public school sample. This provides the linkage between the district and the school. However, in Delaware, Florida, Maryland, Nevada, and West Virginia, a different sampling method was used because an earlier simulation study revealed that in these states standard errors were high relative to the sampling rate. To improve the reliability of SASS school district estimates, all districts in these states were included in the sample. Placing all districts in each of these five states in the sample reduced the overall state standard error to zero, if all districts responded. About 5,250 public school districts were pulled into the sample by being associated with sampled public schools.

**Teachers.** Teachers are defined as staff who teach regularly scheduled classes to students in any of grades K-12. Teacher rosters (i.e., Teacher Listing Forms) were collected from sampled schools, primarily by mail, and compiled at the Census Bureau. This compilation was done on an ongoing basis throughout the roster collection period. Along with the names of teachers, sampled schools were asked to provide information about each teacher's teaching experience (1-3 years, 4-19 years, and 20 or more years), teaching status (full- or part-time), and subject matter taught (special education, general

elementary, math, science, English/language arts, social studies, vocational/technical, or other), as well as whether the school felt the teacher would likely be teaching at the same school the following year.

Sampling was also done on an ongoing basis throughout the roster collection period. The Census Bureau first stratified teachers into five teacher types: (1) new teachers expected to be teaching at the same school the next school year, (2) experienced teachers expected to be teaching at the same school the next school year, (3) new teachers expected to leave the next school year, (4) mid-career teachers expected to leave the next school year, and (5) highly experienced teachers expected to leave the next school year. Before teachers were allocated to these strata, schools were first allocated an overall number of teachers to be selected within each school stratum. Sampling rates for teachers varied between the strata listed above. Private school teachers in above category 2 and all teachers in above categories 3-5 were oversampled at different rates. So that a school would not be overburdened by sampling too large a proportion of its teachers, the maximum number of teachers per school was set at 20. About 14 percent of the eligible public schools, 15 percent of the eligible private schools, and 13 percent of eligible BIE schools did not provide teacher lists. For these schools, no teachers were selected. Within each teacher stratum in each school, teachers were selected systematically with equal probability. About 56,360 teachers were sampled, 47,440 from public schools, 750 from BIE schools, and 8,180 from private schools (detail may not sum to totals because of rounding).

**Principals.** The principal of each sampled school was selected. About 12,910 school principals were sampled (9,800 public, 180 BIE, and 2,940 private) (detail may not sum to totals because of rounding).

**Library media centers.** A library media center in each sampled public and BIE school was also selected. Private schools were not included in the library media center survey because of NCES budget constraints. About 9,800 public school and 180 BIE school library media centers were sampled.

## **Data Collection Procedures**

Before the administration of the 2007-08 SASS, several changes were made in the survey sample design, questionnaire content, procedures, and methodology. For details on these changes, see the *Documentation for the 2007-08 Schools and Staffing Survey* (Tourkin et al. forthcoming).

In 2007-08, SASS employed a mail-based survey approach, with subsequent telephone and field follow-up. In preparation for data collection, advance letters were mailed to the sampled schools in September 2007 to verify their addresses. School packages were

mailed at the beginning of the school year.<sup>5</sup> Next, schools were telephoned using a computer-assisted telephone-interviewing (CATI) instrument to verify school information, establish a survey coordinator (who became the main contact person at the school for subsequent communication), and follow up on the Teacher Listing Form. Teacher questionnaires were mailed to schools on a flow basis as teachers were sampled on an ongoing basis from the data provided on the Teacher Listing Form. The field follow-up period was preceded by phone calls from the telephone centers to remind the survey coordinator to have staff complete and return all forms. Individual survey respondents (principal, librarian, and teachers) were also called from the telephone centers and asked to complete the questionnaire by phone. Data collection ended in June 2008.

## **Data Processing and Imputation**

The Census Bureau used both central processing and headquarters staff to check returned questionnaires, capture data, and implement quality control procedures. Questionnaires that had a preliminary classification of a complete interview were submitted to a series of computer edits consisting of a range check, a consistency edit, and a blanking edit.<sup>6</sup> After these edits were run and reviewed by analysts, the records were put through another edit to make a final determination as to whether the case was eligible for the survey and whether sufficient data had been collected for the case to be classified as a complete interview.

After the final edits were run, cases with “not-answered” values for items remained. Values were imputed using a two stage process. In the first stage, items were imputed with a valid response using data either from the sample frame, other items in the same SASS questionnaire, or another questionnaire associated with the same school or school district. In addition, data were ratio adjusted in some circumstances so that items were consistent with one another. In the second stage, donor-respondent methods, such as hot-deck imputation, were used. If no suitable donor case could be matched, the few remaining items were imputed with a mean or mode from groups of similar cases. After each stage of imputation, computer edits were run again to verify that the imputed data were consistent with the existing questionnaire data. If that was not the case, an imputed value was blanked out by one of these computer edits due to inconsistency with other data within the same questionnaire or because it was out of the range of acceptable values. In these situations, Census Bureau analysts looked at the items and tried to determine an appropriate value. Imputation flags, indicating which imputation method

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<sup>5</sup> The SASS school package contained a cover letter to the principal, a cover letter to the survey coordinator, the Teacher Listing Form, the Public School Principal Questionnaire/Private School Principal Questionnaire, the Public School Questionnaire/Public School Questionnaire (With District Items)/Private School Questionnaire, the School Library Media Center Questionnaire (for public and BIE-funded schools only), postage-paid return envelopes, an NCES pamphlet detailing general information about SASS, an NCES brochure detailing some of the findings from the 2003-04 SASS, and the *Statistical Abstract of the United States: 2007* CD.

<sup>6</sup> Blanking edits delete answers to questions that should not have been filled in (e.g., if a respondent followed a wrong skip pattern).

was used, were assigned to each imputed survey variable. For further information, see the section on data processing and imputation in the *Documentation for the 2007-08 Schools and Staffing Survey* (Tourkin et al. forthcoming).

## Response Rates

**Unit response rates.** The unit response rate indicates the percentage of sampled cases that met the definition of a complete interview. The weighted SASS unit response rate was produced by dividing the base-weighted number of respondents who completed questionnaires by the base-weighted number of eligible sampled cases.<sup>7</sup> Table B-1 summarizes the base-weighted unit response rates for each survey type. Because response rates vary between surveys, it is possible not to have information for all the components related to a particular school. For example, it is possible that a district does not have a corresponding school record or there may not be a principal record for every school.

Table B-1. Base-weighted unit and overall response rates, by survey: 2007-08

Survey	Unit response rate (percent)	Overall response rate (percent)
Public School Teacher Listing Form	86.2	†
BIE School Teacher Listing Form	87.3	†
Private School Teacher Listing Form	85.1	†
Public School District	87.8	†
Public School	80.4	†
BIE School	77.1	†
Private School	75.9	†
Public School Principal	79.4	†
BIE School Principal	79.2	†
Private School Principal	72.2	†
Public School Teacher	84.0	72.4
BIE School Teacher	81.8	71.4
Private School Teacher	77.5	65.9
Public School Library Media Center	81.7	†
BIE School Library Media Center	78.9	†

† Not applicable.

NOTE: Response rates were weighted using the inverse of the probability of selection (base weight). BIE refers to schools funded by the Bureau of Indian Education that are operated by the BIE, a tribe, or a private contractor and not by a regular school district.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, "Public School Teacher, BIE School Teacher, and Private School Teacher Listing Forms, Public School District, Public School, BIE School, Private School, Public School Principal, BIE School Principal, Private School Principal, Public School Teacher, BIE School Teacher, Private School Teacher, Public School Library Media Center, and BIE School Library Media Center data files," 2007-08.

<sup>7</sup> For the formula used to calculate the unit response rate, see *NCES Statistical Standards* (U.S. Department of Education 2003).



**Overall response rates.** The overall response rate represents the response rate to the survey taking into consideration each stage of the survey. For teachers, the overall response rate is calculated as the product of the response rate to two stages: the Teacher Listing Form and the teacher questionnaire.<sup>8</sup> The base-weighted overall response rate for public school teachers was 72.4 percent; for BIE school teachers, 71.4 percent; and for private school teachers, 65.9 percent. For the other surveys, the overall and unit response rates are the same since they have only one data collection stage.

**Unit nonresponse bias analysis.** Because the NCES Statistical Standards (4-4) require analysis of nonresponse bias for any survey stage with a base-weighted response rate less than 85 percent, all SASS files were evaluated for potential bias. First, the base-weighted unit response rate was calculated by state, region, or affiliation depending on the sector (public, BIE, and private respectively). If the base-weighted response rate for any state, region, or affiliation was below 85 percent, a detailed comparison of respondents to the frame population was conducted by examining the following characteristics: grade level, urbanicity, enrollment, and state/affiliation. A difference between the frame and respondent population was considered noteworthy if the difference was statistically significant and the following four conditions were met:

- The relative difference between the frame and respondent population was greater than 10 percent;
- The absolute difference was greater than one percentage point;
- The coefficient of variation was less than 15 percent; and
- The cell for each subpopulation contained at least 30 interviews.

As shown in table B-1, the base-weighted response rate was 87.8 percent for public school districts. When response rates were calculated further by state, 16 states had rates below 85 percent. Table B-2 contains a list of the comparisons between the frame and the weighted distribution that were analyzed for potential bias, with an indication of the comparisons with evidence of potential bias.

Table B-2. Comparisons between frame distribution and base-weighted and final-weighted respondent distributions for public school districts with an indication of potential sources of bias: 2007-08

Potential source of bias	Base-weighted respondent distribution	Final-weighted respondent distribution
New York, enrollment (2,500-5,000 students)	x	x
Arizona, locale (rural)		x
State (Nebraska)		x

NOTE: x denotes comparisons that are a potential source of bias.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.

<sup>8</sup> For the formula used to calculate the overall response rate, see *NCES Statistical Standards* (U.S. Department of Education 2003).

Nonresponse adjustments were designed to reduce or eliminate nonresponse bias. The following variables were included in the nonresponse adjustments: urbanicity, enrollment, and state. The final-weighted comparison to the frame reflects the nonresponse adjustment. Table B-2 shows those comparisons that have evidence of potential bias after the nonresponse adjustments were included. For further information on unit response rates and nonresponse bias analysis, see the *Documentation for the 2007-08 Schools and Staffing Survey* (Tourkin et al. forthcoming).

**Item response rates.** The item response rate indicates the percentage of respondents who answered a given survey question or item. The weighted SASS item response rate is calculated by dividing the base-weighted number of respondents who provided an answer to an item by the base-weighted number of respondents who were eligible to answer that item.<sup>9</sup> Table B-3 provides a brief summary of the base-weighted item response rates for each survey. The nonresponse bias analysis conducted at the item level revealed no substantial evidence of bias in the public school district file. For further information on nonresponse bias analysis and item response rates, see the *Documentation for the 2007-08 Schools and Staffing Survey* (Tourkin et al. forthcoming).

Table B-3. Summary of base-weighted item response rates, by survey: 2007-08

Survey	Percent of items with a response rate of 85 percent or more	Percent of items with a response rate of less than 85 percent
Public School Teacher Listing Form	†	†
BIE School Teacher Listing Form	†	†
Private School Teacher Listing Form	†	†
Public School District	97.9	2.1
Public School	95.2	4.8
BIE School	85.8	14.2
Private School	88.3	11.7
Public School Principal	99.4	0.6
BIE School Principal	98.2	1.8
Private School Principal	98.0	2.0
Public School Teacher	91.4	8.6
BIE School Teacher	86.8	13.2
Private School Teacher	90.0	10.0
Public School Library Media Center	95.1	4.9
BIE School Library Media Center	93.4	6.6

† Not applicable.

NOTE: Response rates were weighted using the inverse of the probability of selection (base weight). Detail may not sum to totals because of rounding. BIE refers to schools funded by the Bureau of Indian Education that are operated by the BIE, a tribe, or a private contractor and not by a regular school district.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey, "Public School, BIE School, and Private School Teacher Listing Forms, Public School District, Public School, BIE School, Private School, Public School Principal, BIE School Principal, Private School Principal, Public School Teacher, BIE School Teacher, Private School Teacher, Public School Library Media Center, and BIE School Library Media Center data files," 2007-08.

<sup>9</sup> For the formula to calculate the item response rate, see *NCES Statistical Standards* (U.S. Department of Education 2003).

## **Weighting**

The general purpose of weighting is to scale up the sample estimates to represent the target survey population. For SASS, a base weight (e.g., the inverse of the sampled teacher's probability of selection) is used as the starting point. Next, a series of nonresponse adjustment factors are calculated and applied using information from the 2003-04 SASS nonresponse bias analysis and information about the respondents known from the sampling frame data. Finally, for some files, a ratio adjustment factor is calculated and applied to the sample to adjust the sample totals to the frame totals. The product of these factors is the final weight for each SASS respondent, which appears as DFNLWT on the SASS Public School District data file, AFNLWGT on all SASS Principal data files, SFNLWGT on all SASS School data files, TFNLWGT on all SASS Teacher data files, and MFNLWGT on all SASS Library Media Center data files.

The counts in table 1 do not necessarily match the frame counts because some cases in the frame were found to be ineligible (i.e., out-of-scope) and because not all data files (e.g., principal or library media center) are post-stratified to match the frame counts.

## **Variance Estimation**

In surveys with complex sample designs, such as SASS, direct estimates of sampling errors that assume a simple random sample typically underestimate the variability in the estimates. The SASS sample design and estimation include procedures that deviate from the assumption of simple random sampling, such as stratifying the school sample, oversampling new teachers, and sampling with differential probabilities.

One method of calculating sampling errors of complex sample designs is replication. Replication methods involve constructing a number of subsamples (i.e., replicates) from the full sample and computing the statistic of interest for each replicate. The mean square error of the replicate estimates around the full sample estimate provides an estimate of the variance of the statistic. Each SASS data file includes a set of 88 replicate weights designed to produce variance estimates. The set of replicate weights for each file should be applied to the respondents in that file. The replicate weights for SASS respondents are DREPWT1-DREPWT88 for districts, AREPWT1-AREPWT88 for principals, SREPWT1-SREPWT88 for schools, TREPWT1-TREPWT88 for teachers, and MREPWT1-MREPWT88 for library media centers.

## **Reliability of Data**

SASS estimates are based on samples. The sample estimates may differ somewhat from the values that would be obtained from the universe of respondents using the same questionnaire, instructions, and field representatives. The difference occurs because a sample survey estimate is subject to two types of errors: nonsampling and sampling. Estimates of the magnitude of sampling error for SASS data can be derived or calculated. Nonsampling errors are attributed to many sources, including definitional difficulties, the inability or unwillingness of respondents to provide correct information, differences in the interpretation of questions, an inability to recall information, errors made in collection (e.g., in recording or coding the data), errors made in processing the data, and errors made in estimating values for missing data. Quality control and edit procedures were used to reduce errors made by respondents, coders, and interviewers.

## **Caution Concerning Changes in Estimates**

Care must be taken in estimating change over time in a SASS data element, because some of the measured change may not be attributable to a change in the education system. Some of the change may be due to changes in the sampling frame, changes in questionnaire item wording, or other changes. For example, the definition of locale codes has undergone major changes since the 2000 Decennial Census. The first major change was an improvement in geocoding technology, which improved the assignment of specific addresses to physical locations. In 2005, a new locale code for CCD was implemented based on the new urban-centric method of classifying locale. Changes in how areas and, thus, schools are categorized may account for at least some changes that are noted from previous administrations.

To facilitate the transition from the older locale codes to the new ones, locale codes based on geographic concepts from both the 2000 Decennial Census and the new urban-centric method are included in the 2007-08 SASS data files. (SLOCP8, URBANS8, DLOCP8, and URBAND8 use the 2000 Census metropolitan areas, and SLOCP12, URBANS12, DLOCP12, and URBAND12 use the new urban-centric method.) The specific categories reported by the 2000 Census locale codes are based upon the 2000 Census definitions for central city, urban fringe of a large or medium-sized central city, large or small town, and rural areas either inside a metropolitan area or outside a metropolitan area. The new urban-centric locale codes are based on the more immediate proximity of a physical location to an urbanized area than are the older, county-based locale codes. This report uses the new urban-centric locale codes.

## **Appendix C: Description of Data Files**

## Description of Data Files

The 2007-08 Schools and Staffing Survey (SASS) data are being released in 12 data files. Those data files were created from nine survey questionnaires: the School District Questionnaire, School Questionnaire (public), Private School Questionnaire, Public School Questionnaire (With District Items),<sup>1</sup> Principal Questionnaire, Private School Principal Questionnaire, Teacher Questionnaire, Private School Teacher Questionnaire, and Library Media Center Questionnaire. Table C-1 identifies each data file and the questionnaire data used to build the file.

Table C-1. Names of data files and the questionnaires from which the data were drawn: 2007-08

Data file	Questionnaire source
School district	School District Questionnaire, Public School Questionnaire (With District Items)
Public school	School Questionnaire, Public School Questionnaire (With District Items)
Private school	Private School Questionnaire
BIE school	Public School Questionnaire (With District Items)
Public school principal	Principal Questionnaire
Private school principal	Private School Principal Questionnaire
BIE school principal	Principal Questionnaire
Public school teacher	Teacher Questionnaire
Private school teacher	Private School Teacher Questionnaire
BIE school teacher	Teacher Questionnaire
Public school library media center	Library Media Center Questionnaire
BIE school library media center	Library Media Center Questionnaire

NOTE: BIE refers to schools funded by the Bureau of Indian Education that are operated by the BIE, a tribe, or a private contractor and not by a regular school district.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), 2007-08.

For the most part, there is a separate data file for each type of respondent (district, school, principal, teacher, and library media center) for each school type or sector (public,<sup>2</sup> private, and BIE-funded [BIE]). There are two exceptions: 1) there are no School District files for private and BIE schools as these sectors do not have districts, per se, and 2) there is no Library Media Center data file for private schools because library media centers in private schools were not included in the 2007-08 SASS (for budget reasons).

The School District data file includes responses from school districts to the School District Questionnaire along with the “district items” taken from the Public School Questionnaire (With District Items) completed by the subset of public schools that were not associated with “traditional” school districts. These schools include state-run schools,

<sup>1</sup> The School Questionnaire (With District Items) is an expanded version of the Public School Questionnaire that includes items from the School District Questionnaire.

<sup>2</sup> Public includes traditional public and public charter.

traditional public schools in single-school districts, and independent charter schools. Rather than ask these public schools to complete two questionnaires, School and School District, NCES created the Public School Questionnaire (With District Items) to capture district data from these schools. Table C-2 shows the different respondents and questionnaires used to create the School District data file.

Table C-2. The number of cases in the School District data file, by respondent and source of data: 2007-08

Respondent	Source of data in the district file	Number of cases
Total		4,600
Regular districts	School District Questionnaire	3,950
State run schools <sup>1</sup>	Public School Questionnaire (With District Items)	40
Schools in single-school districts	Public School Questionnaire (With District Items)	470
Independent charter schools	Public School Questionnaire (With District Items)	140

<sup>1</sup> These include schools for the blind, career and technical centers, and schools in detention centers run by a state.

NOTE: Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District and Public School Data Files," 2007-08.

The “district items” gathered from the Public School Questionnaire (With District Items) were not placed on the Public School data file, but they were kept with the school items on the BIE School data file.

## **Appendix D: Description of Variables**



## Description of Variables

The variables that are included in this report are listed in table D-1. Those with variable names that begin with “D” and are followed by four digits are survey variables that come from items on the Public School District Questionnaire. For survey variables, the numeric part of the variable name can be found in the questionnaires to the left of the corresponding question. The variables without the letter plus four digit names are “created variables,” meaning they were created using survey variables, frame variables (variables taken from the sampling frame), other created variables, or a combination of these. They are frequently used in the National Center for Education Statistics (NCES) publications and have been added to the data files to facilitate data analysis. The definitions for the created variables follow table D-1. The variables without a variable name were created for this analysis and are not on the data files.

Table D-1. Variables used in the Characteristics of Public School Districts in the United States: Results  
From the 2007-08 Schools and Staffing Survey report: 2007-08

Variable	Variable name in data file
Average number of years of instruction in computer science needed for a standard diploma	D0373
Average number of years of instruction in English for language arts needed for a standard diploma	D0371
Average number of years of instruction in foreign language needed for a standard diploma	D0376
Average number of years of instruction in mathematics needed for a standard diploma	D0372
Average number of years of instruction in physical or biological sciences needed for a standard diploma	D0375
Average number of years of instruction in social sciences or social studies (e.g. history, geography, economics) needed for a standard diploma	D0374
Base salary for teachers with bachelor's degree and 10 years of teaching experience	D0331
Base salary for teachers with bachelor's degree and no teaching experience	D0330
Base salary for teachers with highest possible step on the salary schedule	D0334
Base salary for teachers with master's degree and 10 years of teaching experience	D0333
Base salary for teachers with master's degree and no teaching experience	D0332
Base salary of the highest paid full-time principal	D0327
Base salary of the highest paid full-time teacher	D0336
Base salary of the lowest paid full-time principal	D0326
Base salary of the lowest paid full-time teacher	D0335
District enrollment	D0276
District gives incentives to recruit or retain teachers to teach in a less desirable location	D0349
See notes at end of table.	

Table D-1. Variables used in the Characteristics of Public School Districts in the United States: Results  
From the 2007-08 Schools and Staffing Survey report: 2007-08—Continued

Variable	Variable name in data file
District gives incentives to recruit or retain teachers to teach in fields of shortage	D0350
District grants high school diplomas	D0370
District has meet-and-confer agreement with a principals' association or union	D0299
District has meet-and-confer agreement with a teachers' association or union	D0296
District has no specific agreement with a principals' association or union	D0299
District has no specific agreement with a teachers' association or union	D0296
District has salary schedules for principals	D0325
District has salary schedules for teachers	D0328
District has tenure system for principals	D0301
District offers defined-benefit retirement plan	D0340
District offers defined-contribution retirement plan	D0341
District offers dental insurance	D0338
District offers free training in fields with current or anticipated shortages	D0315
District offers general medical insurance	D0337
District offers group life insurance	D0339
District offers housing, housing subsidies, or rent assistance	D0344
District offers subsidized meals	D0345
District offers subsidized transportation	D0346
District offers tuition reimbursement	D0343
District rewards excellence in teaching	D0348
District rewards teachers who have attained National Board for Professional Teaching Standards certification	D0347
District that has collective bargaining agreement with a principals' association or union	D0299
District that has collective bargaining agreement with a teachers' association or union	D0296
District uses finder's fee to existing staff for new teacher referrals to recruit new teachers	D0314
District uses forgiveness of student loan(s) funded by the district to recruit new teachers	D0312
District uses relocation assistance to recruit new teachers	D0313
District uses signing bonuses to recruit new teachers	D0311
Districts has a training program for aspiring school administrators	D0317
Number of days in the normal contract year for principals	D0300
Number of newly-hired principals	D0316
See notes at end of table.	

Table D-1. Variables used in the Characteristics of Public School Districts in the United States: Results  
From the 2007-08 Schools and Staffing Survey report: 2007-08—Continued

Variable	Variable name in data file
Number of principals	D0298
Number of schools per district	AG_NOSC2 <sup>1</sup>
Number of teachers	D0295
Number of teachers in public school districts who were dismissed or did not have their contracts renewed	--- <sup>(1)</sup>
Number of teachers with tenure in public school districts who were dismissed or did not have their contracts renewed	D0319
Number of teachers without tenure in public school districts who were dismissed or did not have their contracts renewed	D0318
Percentage of students in district approved for National School Lunch Program	NSLAPP_D <sup>1</sup>
Teachers who were newly hired for grades K-12 and comparable ungraded levels	D0310
Urban-centric district locale code	URBAND12 <sup>1</sup>

<sup>1</sup>The definition for this variable can be found below.

Source: U.S. Department of Education, National Center for Education Statistics, Schools and Staffing Survey (SASS), "Public School District Data File," 2007-08.

**Number of schools per district (AG\_NOSC2):** A created categorical variable based on the continuous variable that identifies the number of public schools per school district, after frame collapsing procedure.

**Number of teachers in public school districts who were dismissed or did not have their contracts renewed:** A variable created for this analysis by adding D0318— the number of teachers without tenure in public school districts who were dismissed or did not have their contracts renewed— and D0319— the number of teachers with tenure in public school districts who were dismissed or did not have their contracts renewed.

**Percentage of students in district approved for the National School Lunch Program (NSLAPP\_D):** NSLAPP\_D is a continuous variable created by dividing the number of students approved for free or reduced-price lunches (D0287) by the total number of K-12 grade students enrolled among districts approved for the National School Lunch Program (NSLP) (D0295). Districts that did not participate in the NSLP have valid skip values. For this report, NSLAPP\_D is re-coded as a categorical variable describing the proportion of students approved for free or reduced price lunches.

**Urban-centric district locale code (URBAND12):** A created variable collapsed from the 12 category urban-centric district locale code (DCLOP\_07) which was assigned using the 2000 Decennial Census data and recoded into four categories: city, suburban, town, and rural.