

# Characteristics of Public Elementary and Secondary Schools in the United States:

Results From the 2015–16 National Teacher and Principal Survey

First Look



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# Introduction

The 2015–16 National Teacher and Principal Survey (NTPS) is a nationally representative sample survey of public<sup>1</sup> K–12 schools, principals, and teachers in the 50 states and the District of Columbia. This report presents selected findings from the Public School Data File of NTPS. NTPS is a redesign of the Schools and Staffing Survey (SASS). SASS was conducted on behalf of the National Center for Education Statistics (NCES) on a 4-year cycle, beginning with the 1987–88 school year and ending in the 2011–12 school year. NTPS maintains the same focus on schools, teachers, and administrators that was traditionally held by the SASS; however, it has a different structure and sample than previous administrations of SASS and operates on a 2-year survey cycle. NTPS collects data on core topics including teacher and principal preparation, classes taught, school characteristics, and demographics of the teacher and principal labor force. It is developed by the NCES of the Institute of Education Sciences within the U.S. Department of Education and conducted by the U.S. Census Bureau. This report represents the initial results of the first collection of NTPS.

The purpose of NTPS 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 school, principal, and teacher surveys, and information can be linked across all three surveys.

The 2015–16 NTPS uses a school-based sample of public schools. Because of this school-based design, principals associated with public schools were included in the sample. Teachers associated with a selected school were sampled from a teacher list provided by the school, collected from school websites, or purchased from a vendor. The selected samples include about 8,300 traditional and charter public schools and public school principals, and 40,000 public school teachers. The samples were drawn to support estimates by geography, grade span, and charter school status. The reader is referred to the *Survey Documentation for the 2015–16 National Teacher and Principal Survey* (Cox et al. forthcoming) for details about these estimation domains and their precision criteria.

The data were collected via mailed questionnaires and internet instruments with telephone and in-person field follow-up. The first questionnaires were mailed in September 2015, and data collection ended in August 2016. The weighted unit response rate was 72.5 percent for public schools. For detailed information about response rates, bias analysis results, methodology, and design of the 2015–16 NTPS, please see the technical notes of this report in appendix B or the *Survey Documentation for the 2015–16 National Teacher and Principal Survey* (Cox et al. forthcoming).

The purpose of this First Look report is to introduce new data through the presentation of tables containing descriptive information. Selected findings chosen for this report demonstrate the range of information available on the 2015–16 NTPS Public School Restricted-Use Data File. The selected findings do not represent a complete review of all observed differences in the data and are not meant to emphasize any issue. This First Look report highlights findings from the NTPS public school survey. Findings from the principal and teacher surveys will be presented in two companion First Look reports:

- *Characteristics of Public Elementary and Secondary School Principals in the United States: Results From the 2015–16 National Teacher and Principal Survey First Look* (NCES 2017-070); and
- *Characteristics of Public Elementary and Secondary School Teachers in the United States: Results From the 2015–16 National Teacher and Principal Survey First Look* (NCES 2017-072).

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



The tables in this report contain frequencies and percentages demonstrating bivariate relationships. All 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. While the selected findings include only statistically significant findings they do not include every statistically significant comparison. No adjustments were made for multiple comparisons. Many of the variables examined are related to one another, and complex interactions and relationships have not been explored. Statistical Analysis Software (SAS 9.4) and SUDAAN (11.1) were used to compute the statistics for this report. Tables of standard errors are provided in appendix A. Detailed information about the survey methodology is provided in appendix B. Appendix C contains a description of the variables used in this report.

More information about NTPS can be found at <https://nces.ed.gov/surveys/ntps>.

## Selected Findings

- During the 2015–16 school year, there were an estimated 90,400 K–12 public schools in the United States, including 83,500 traditional public and 6,900 public charter schools. These schools served nearly 49.3 million students, with about 46.2 million in traditional public schools and another 3 million in public charter schools. Between the 2011–12 SASS and the 2015–16 NTPS, the number of public charter schools increased from 4,480 to 6,900 (Bitterman, Gray, & Goldring 2013) (table 1).
- About 99 percent of public schools had at least one student with an Individual Education Plan (IEP) because of special needs. Additionally, 76 percent of public schools had instruction specifically designed to address the needs of English language learners or limited English proficient students (table 2).
- Nationwide, about 21 percent of public schools offered at least one course entirely online. This was more common among public charter schools (29 percent) than it was among traditional public schools (20 percent). Offering one or more classes that were entirely online was much more common among high (58 percent) or combined (64 percent) schools, and very small (45 percent) or very large (44 percent) schools than for all public schools (21 percent). Among schools offering online courses, relatively more public charter schools offered all of their classes online (14 percent) than traditional public schools (5 percent) (table 3).
- Including full-time and part-time staff, public schools employed an estimated 124,420 school counselors, 66,320 psychologists, and 44,920 social workers. They also employed 96,440 speech therapists and 84,020 nurses, as well as 73,580 librarians/library media specialists and 80,920 instructional coordinators and supervisors. In addition, public schools employed a variety of full-time and part-time aides, such as 483,590 special education aides. These schools employed 400,830 food service personnel, 332,270 custodial and maintenance personnel, 66,110 technology specialists, and 260,310 secretaries and other clerical support staff (table 4).
- About two-thirds (66 percent) of public schools had teachers or staff with specialist or academic coaching assignments.<sup>2</sup> Among public schools, 78 percent of primary schools, 60 percent of middle schools, 45 percent of high schools, and 50 percent of combined schools had teachers or staff with these assignments. Relatively fewer small schools had such staff, including only 30 percent of schools with less than 100 students and 53 percent of schools with 100 to 199 students in comparison to all public schools (66 percent) (table 5).
- Overall, 59 percent of public schools had instruction beyond the normal school day for students who need academic assistance. Relatively more charter schools (65 percent) provided this instruction than traditional public schools (59 percent). This type of instruction was most frequently provided in schools with 1,000 or more students (72 percent), middle schools (68 percent), and city schools (68 percent) than for all public schools (59 percent). Additionally, 43 percent of all public schools had instruction beyond the normal school day for students who seek academic advancement or enrichment. Again, relatively more charter schools (50 percent) provided this than traditional public schools (43 percent) (table 6).
- The average start time for public schools was 8:10 a.m. Nationally, only about 4 percent of schools had start times before 7:30 a.m. This early start was more common among schools with 1,000 or more students (14 percent) than all public schools (4 percent). It was also substantially more common among high schools (10 percent) than among primary (2 percent), middle (7 percent), or combined (4 percent) schools (table 7).

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<sup>2</sup> A specialist works with students and a coach works with teachers. Coaching includes observing lessons, providing feedback, and demonstrating teaching strategies.

- About 87 percent of public schools in the United States were regular schools, 6 percent were alternative or other schools,<sup>3</sup> 4 percent were special program emphasis,<sup>4</sup> 2 percent were special education,<sup>5</sup> and 2 percent were career/technical/vocational schools<sup>6</sup> (table 8).

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<sup>3</sup> Alternative/other school offers a curriculum designed to provide alternative or nontraditional education; it does not specifically fall into the categories of regular, special program emphasis, special education, or vocational school.

<sup>4</sup> Special program emphasis school is a science or math school, performing arts school, talented or gifted school, foreign language immersion school, etc.

<sup>5</sup> Special education school primarily serves students with disabilities.

<sup>6</sup> Career/technical/vocational school primarily serves students being trained for occupations.

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## **Estimate Tables**

Table 1. Total number of public schools and students, and percentage of schools and students that participated in the Title I and federal free or reduced-price lunch programs, by selected school characteristics: 2015–16

Selected school characteristic	Total number of schools	Total number of students	Title I services <sup>1</sup>		Federal free or reduced-price lunch program	
			Percent of all schools with students that received services	Percent of all K–12 students that received services <sup>2</sup>	Percent of all schools that participated	Percent of all K–12 students who were approved for free or reduced-price lunches <sup>3</sup>
All public schools	90,400	49,278,500	60.7	42.5	94.5	50.2
School classification						
Traditional public	83,500	46,243,500	60.6	42.0	95.6	50.2
Charter school	6,900	3,035,000	62.5	49.8	80.9	49.9
Community type						
City	24,800	14,938,100	64.9	52.7	95.0	58.8
Suburban	29,100	19,400,300	51.4	32.8	95.2	42.7
Town	12,200	5,701,800	63.3	48.2	93.7	54.9
Rural	24,400	9,238,300	66.3	42.7	93.6	49.4
School level						
Primary	50,400	23,459,800	72.7	55.3	97.0	55.9
Middle	13,900	8,554,500	49.7	37.7	98.3	49.1
High	17,900	14,345,400	35.0	23.8	89.4	42.9
Combined	8,200	2,918,800	61.8	45.4	83.9	44.0
Student enrollment						
Less than 100	6,500	303,800	38.8	38.2	77.6	62.0
100–199	7,300	1,070,000	67.3	48.8	92.8	65.5
200–499	35,700	12,598,600	69.0	49.7	95.8	56.5
500–749	22,900	13,836,400	63.1	49.3	96.8	53.9
750–999	9,200	7,838,000	53.0	42.4	95.9	47.8
1,000 or more	8,800	13,631,700	39.5	28.5	95.7	40.6
Percent of K–12 students who were approved for free or reduced-price lunches						
0–34	24,500	16,379,100	39.8	17.5	100.0	17.8
35–49	12,000	6,892,000	53.9	28.0	100.0	42.7
50–74	18,800	10,413,900	71.0	54.2	100.0	62.0
75 or more	30,100	13,385,000	80.0	75.1	100.0	92.9
School did not participate in free or reduced-price lunch program	5,000	2,208,600	24.4	19.9	†	†

† Not applicable.

<sup>1</sup> Respondents were provided the following explanation on the questionnaire for Title I of the Elementary and Secondary Education Act: “Title I is a federally funded program that provides educational services, such as remedial reading or remedial math, to children who live in areas with high concentrations of low-income families.” These services were received at the school or at any other location.

<sup>2</sup> Percentages are based on all students, including those in schools that did not receive Title I services.

<sup>3</sup> Percentages are based on all students, including those in schools that did not participate in the federal free or reduced-price lunch program.

NOTE: Detail may not sum to totals because of rounding. Some of the counts for selected school characteristics may not match between school and principal data files due to independent weighting procedures, differential nonresponse, rounding, and not every school having a principal.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), “Public School Data File,” 2015–16.

Table 2. Number and percentage of public schools that had any students with an Individual Education Plan (IEP) because of special needs, and schools with instruction specifically designed to address the needs of English-language learners (ELLs) or limited-English proficient (LEP) students, by selected school characteristics: 2015–16

Selected school characteristic	IEP because of special needs <sup>1</sup>			Schools with instruction specifically designed to address the needs of ELL/LEP students	
	Number of schools with at least 1 student on an IEP	Percent of schools with at least 1 student on an IEP	Percent of K–12 students with an IEP	Number	Percent
All public schools	89,400	98.9	11.9	69,000	76.3
School classification					
Traditional public	82,500	98.8	12.0	64,100	76.7
Charter school	6,900	99.5	10.2	4,900	70.7
Community type					
City	24,500	98.7	11.8	19,900	80.3
Suburban	28,900	99.3	11.5	24,900	85.5
Town	12,000	98.4	12.4	8,900	73.4
Rural	24,100	98.8	12.5	15,300	62.7
School level					
Primary	50,100	99.2	11.3	40,600	80.4
Middle	13,700	99.1	13.1	11,400	82.6
High	17,600	98.4	11.7	12,700	70.6
Combined	8,000	97.2	14.4	4,300	52.6
Student enrollment					
Less than 100	6,000	91.7	30.4	3,000	46.4
100–199	7,100	97.0	15.7	3,900	53.6
200–499	35,600	99.7	12.5	26,100	73.1
500–749	22,900	99.7	11.6	19,800	86.1
750–999	9,100	99.5	11.9	8,100	88.3
1,000 or more	8,800	99.8	10.9	8,100	92.2
Percent of K–12 students who were approved for free or reduced-price lunches					
0–34	24,400	99.4	10.9	19,500	79.5
35–49	11,900	99.2	11.9	9,200	76.3
50–74	18,700	99.2	12.6	14,700	78.2
75 or more	29,800	98.9	12.7	23,100	76.8
School did not participate in free or reduced-price lunch program	4,700	94.1	11.0	2,500	50.2

<sup>1</sup>Public schools were asked about students with IEPs because of special needs. “Special needs” was not defined for respondents. In some public schools, gifted students have IEPs and may be reported here.

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

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), “Public School Data File,” 2015–16.

Table 3. Number and percentage of schools that offered any courses entirely online, and among those schools that offered courses entirely online, the percentage distribution of schools, by number of courses that are offered online and selected school characteristics: 2015–16

Selected school characteristic	Number of schools that offered courses entirely online	Percent of schools that offered courses entirely online	Among schools that offered at least one course entirely online, percentage distribution of schools that offered				
			One or a few courses online	Some courses, but less than half of all courses online	About half of all courses online	A majority of all courses online	Offered all courses online
All public schools	19,000	21.1	58.9	26.6	3.0	5.7	5.7
School classification							
Traditional public	17,100	20.4	59.8	27.0	2.9	5.5	4.8
Charter school	2,000	28.6	51.6	23.5	3.6	7.5	13.9
Community type							
City	4,200	16.8	56.2	25.4	6.0	5.0	7.5
Suburban	4,800	16.4	60.1	22.8	2.7	7.2	7.2
Town	2,700	22.4	52.2	33.3	‡	6.6	6.5
Rural	7,400	30.2	62.3	27.4	2.0	4.9	3.4
School level							
Primary	1,700	3.4	81.9	8.4 !	‡	‡	‡
Middle	1,800	12.8	78.3	8.2 !	‡	4.6	‡
High	10,300	57.5	53.8	32.2	3.6	6.7	3.6
Combined	5,300	63.9	55.0	27.8	2.3	5.1	9.7
Student enrollment							
Less than 100	2,900	44.8	36.3	23.4	6.1	14.6	19.7
100–199	2,100	28.8	52.4	30.0	‡	7.6	6.3
200–499	5,600	15.7	64.3	27.4	1.1	3.5	3.7
500–749	3,000	13.2	67.8	23.0	3.8	4.3	‡
750–999	1,500	16.2	70.8	24.6	‡	‡	‡
1,000 or more	3,900	44.0	60.3	29.9	2.9	4.0	3.0
Percent of K–12 students who were approved for free or reduced-price lunches							
0–34	5,200	21.0	66.6	26.1	1.6	2.4	‡
35–49	2,800	23.2	67.1	25.0	‡	4.9	‡
50–74	3,600	19.2	60.4	29.4	3.8	5.7	‡
75 or more	5,700	18.9	55.2	27.6	4.1	5.8	7.3
School did not participate in free or reduced-price lunch program	1,800	35.7	33.0	22.3	‡	16.3	25.0

! Interpret data with caution. The coefficient of variation (CV) for this estimate is between 30 percent and 50 percent (i.e., the standard error is at least 30 percent and less than 50 percent of the estimate).

‡ Reporting standards not met. The coefficient of variation (CV) for this estimate is 50 percent or greater (i.e., the standard error is 50 percent or more of the estimate) or the response rate is below 50 percent.

NOTE: Detail may not sum to totals because of rounding and because some data are not shown.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), "Public School Data File," 2015–16.



Table 4. Total number of full-time and part-time school staff (head counts), by type of staff and selected school characteristics: 2015–16

Selected school characteristic	Vice principals and assistant principals	Instructional coordinators and supervisors, such as curriculum specialists	Librarians/ library media specialists	School counselors, excluding psychologists and social workers	Student support services professional staff				
					Nurses	Social workers	Psychologists	Speech therapists or pathologists	Other student support services professional staff
All public schools	80,840	80,920	73,580	124,420	84,020	44,920	66,320	96,440	82,550
School classification									
Traditional public	74,690	73,900	70,690	117,470	79,920	42,050	62,810	91,050	75,780
Charter school	6,150	7,020	2,890	6,950	4,100	2,870	3,510	5,390	6,770
Community type									
City	28,210	28,610	18,960	36,080	22,920	15,650	19,900	28,690	27,470
Suburban	30,920	31,070	25,440	45,830	28,950	16,770	25,610	34,430	32,270
Town	9,110	7,900	9,880	15,140	11,220	4,760	7,350	11,500	8,250
Rural	12,590	13,340	19,310	27,350	20,930	7,740	13,460	21,810	14,570
School level									
Primary	29,510	45,910	42,730	45,180	47,950	24,410	38,440	63,050	47,500
Middle	17,240	13,350	12,080	23,260	13,760	7,620	10,910	14,070	11,460
High	29,540	16,180	14,110	46,200	15,760	9,880	12,870	12,180	15,310
Combined	4,550	5,480	4,660	9,770	6,550	3,010	4,100	7,140	8,280
Student enrollment									
Less than 100	1,020	1,680	1,530	3,900	3,960	2,410	3,070	3,570	4,130
100–199	1,850	3,000	3,910	5,750	4,930	2,400	3,630	4,720	4,190
200–499	16,650	26,530	28,860	34,380	32,190	16,420	24,060	38,110	28,400
500–749	21,800	22,890	20,190	28,030	22,630	11,750	18,380	27,890	24,150
750–999	13,660	12,270	8,720	17,400	9,840	5,510	7,870	11,500	10,560
1,000 or more	25,850	14,550	10,380	34,940	10,460	6,420	9,320	10,650	11,120
Percent of K–12 students who were approved for free or reduced-price lunches									
0–34	24,720	22,430	23,230	40,590	24,750	12,100	20,980	28,330	22,970
35–49	10,520	9,250	11,030	17,360	11,510	5,700	9,020	12,650	10,630
50–74	17,800	16,160	15,900	26,530	17,680	8,970	13,280	20,280	15,580
75 or more	24,900	29,990	21,580	34,930	27,260	16,620	20,660	32,100	28,610
School did not participate in free or reduced-price lunch program	2,890	3,090	1,850	5,010	2,830	1,530	2,380	3,080	4,770

See notes at end of table.

Table 4. Total number of full-time and part-time school staff (head counts), by type of staff and selected school characteristics: 2015–16—Continued

Selected school characteristic	Regular Title I aides	English as a second language (ESL) or bilingual teacher aides	Special education aides <sup>1</sup>	Library media center aides <sup>1</sup>	Other classroom aides <sup>1</sup>
All public schools	131,700	57,910	483,590	45,530	181,690
School classification					
Traditional public	122,370	54,480	465,680	43,970	167,200
Charter school	9,330	3,430	17,910	1,560	14,490
Community type					
City	41,240	20,180	131,570	9,800	47,120
Suburban	36,870	21,080	194,110	16,400	68,540
Town	20,520	7,600	62,760	7,000	26,170
Rural	33,070	9,050	95,150	12,340	39,860
School level					
Primary	94,110	37,570	256,160	26,020	138,850
Middle	13,910	8,460	83,810	7,730	15,180
High	12,900	9,570	103,030	8,770	16,610
Combined	10,780	2,320	40,590	3,010	11,050
Student enrollment					
Less than 100	3,600	900	17,530	1,060	4,730
100–199	8,210	2,030	21,800	1,950	8,300
200–499	53,830	18,540	158,760	17,290	70,860
500–749	40,540	19,240	129,250	12,510	58,580
750–999	14,260	8,340	65,460	5,710	22,870
1,000 or more	11,260	8,860	90,790	7,000	16,340
Percent of K–12 students who were approved for free or reduced-price lunches					
0–34	26,280	14,670	169,880	15,580	59,330
35–49	14,250	6,550	69,670	6,960	21,850
50–74	30,140	12,410	103,110	10,200	38,200
75 or more	58,110	23,330	127,100	11,830	55,270
School did not participate in free or reduced-price lunch program	2,910	960	13,830	960	7,040

See notes at end of table.

Table 4. Total number of full-time and part-time school staff (head counts), by type of staff and selected school characteristics: 2015–16—Continued

Selected school characteristics	Secretaries and other clerical support staff	Food service personnel	Custodial and maintenance personnel	Data coaches or data coordinators	Technology specialists	Security guards or security personnel <sup>2</sup>	School Resource Officers/other law enforcement officers <sup>3</sup>	Other employees not previously mentioned
All public schools	260,310	400,830	332,270	24,950	66,110	43,490	44,180	57,810
School classification								
Traditional public	242,030	384,390	317,070	21,990	61,110	39,980	42,260	51,740
Charter school	18,280	16,440	15,200	2,960	4,990	3,510	1,910	6,070
Community type								
City	75,610	109,020	90,410	8,740	15,710	21,640	12,870	19,140
Suburban	98,490	141,370	120,330	7,550	21,560	16,170	14,610	19,000
Town	30,630	53,870	43,150	3,250	9,390	1,930	6,660	5,930
Rural	55,580	96,560	78,390	5,410	19,450	3,750	10,030	13,740
School level								
Primary	112,130	196,570	153,910	12,740	30,670	9,810	17,590	30,540
Middle	44,360	77,910	58,160	3,880	10,950	7,310	9,650	7,150
High	81,660	102,130	94,780	5,750	17,830	23,420	14,460	12,420
Combined	22,150	24,210	25,420	2,580	6,650	2,950	2,480	7,690
Student enrollment								
Less than 100	7,360	7,170	8,730	890	2,990	2,010 <sup>1</sup>	1,480	2,450
100–199	11,740	14,490	13,840	1,380	4,730	1,640	1,810	1,890
200–499	74,010	125,130	104,790	9,790	23,780	8,650	13,600	17,300
500–749	65,100	110,440	87,720	5,740	15,910	7,500	11,330	18,240
750–999	36,440	58,400	45,390	3,300	8,450	5,380	5,870	8,320
1,000 or more	65,680	85,180	71,800	3,860	10,240	18,310	10,080	9,600
Percent of K–12 students who were approved for free or reduced-price lunches								
0–34	82,300	117,370	104,250	6,140	20,770	11,230	13,060	16,090
35–49	35,600	56,370	47,390	3,050	9,850	4,020	5,970	6,820
50–74	56,090	91,540	71,530	5,120	12,640	9,830	9,840	11,970
75 or more	74,590	129,760	98,450	9,460	19,210	16,710	13,840	18,280
School did not participate in free or reduced-price lunch program	11,740	5,790	10,650	1,180	3,630	1,710	1,470	4,650

<sup>1</sup> Interpret data with caution. The coefficient of variation (CV) for this estimate is between 30 percent and 50 percent (i.e., the standard error is at least 30 percent and less than 50 percent of the estimate).

<sup>2</sup> Includes both instructional and noninstructional aides.

<sup>3</sup> Includes non-law enforcement security guards or security personnel.

<sup>4</sup> Includes career law enforcement officers with arrest authority, who have specialized training and are assigned to work in collaboration with school organizations (School Resource Officers), and sworn law enforcement officers who are not School Resource Officers.

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

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), "Public School Data File," 2015–16.

Table 5. Number and percentage of public schools that had staff with specialist or academic coaching assignments, and among those schools, the percentage that had staff with a particular specialist or academic coaching assignment, by selected school characteristics: 2015–16

Selected school characteristic	Number of schools that had staff with specialist or coaching assignments	Percent of all schools that had staff with specialist or coaching assignments	Among schools that had staff with specialist or coaching assignments, percent that had						
			Reading specialists	Math specialists	Science specialists	Reading coaches	Math coaches	Science coaches	General instructional/ not subject-specific coaches
All public schools	59,600	65.9	70.1	33.5	12.1	41.3	27.6	9.8	36.9
School classification									
Traditional public	54,800	65.6	70.6	32.8	11.5	41.1	26.8	8.9	35.7
Charter school	4,800	69.9	64.9	40.5	18.6	43.8	36.7	20.5	50.3
Community type									
City	18,200	73.4	61.8	35.0	14.6	47.2	37.8	13.6	47.5
Suburban	20,700	71.1	72.9	33.7	12.6	40.7	25.8	9.9	33.9
Town	7,300	59.8	71.2	31.6	11.1	39.4	21.4	7.6	36.4
Rural	13,400	55.0	76.6	32.0	8.5	35.3	19.8	5.7	27.2
School level									
Primary	39,100	77.6	75.2	32.6	10.8	44.4	26.9	7.5	34.5
Middle	8,300	60.1	63.1	37.9	14.0	37.1	29.2	13.2	38.0
High	8,000	44.6	51.1	30.7	12.4	32.9	30.1	16.3	48.2
Combined	4,100	50.1	73.3	37.9	19.7	36.8	25.3	12.3	35.4
Student enrollment									
Less than 100	2,000	30.5	61.5	44.1	24.7	33.4	20.1	12.0 !	41.7
100–199	3,900	53.4	72.9	31.2	13.6	29.2	14.0	6.0	31.8
200–499	24,800	69.4	75.0	34.1	10.5	40.4	27.0	7.3	33.8
500–749	16,700	72.9	69.6	32.5	12.2	43.8	28.4	10.5	37.7
750–999	6,600	72.0	66.5	35.7	13.5	46.6	34.2	14.4	42.5
1,000 or more	5,600	63.9	55.9	28.9	11.7	43.0	31.7	15.3	42.9
Percent of K–12 students who were approved for free or reduced-price lunches									
0–34	16,700	68.2	76.3	31.0	11.5	35.5	23.1	7.7	31.2
35–49	7,700	63.9	74.3	37.1	12.5	38.6	23.9	8.1	32.9
50–74	12,600	67.0	70.9	34.4	9.7	39.8	25.4	9.4	36.6
75 or more	20,400	67.6	64.7	33.3	13.1	49.2	34.1	12.1	42.2
School did not participate in free or reduced-price lunch program	2,200	44.6	55.1	35.6	19.5	31.3	26.5	14.2	45.7

! Interpret data with caution. The coefficient of variation (CV) for this estimate is between 30 percent and 50 percent (i.e., the standard error is at least 30 percent and less than 50 percent of the estimate).

NOTE: A specialist works with students and a coach works with teachers. Coaching includes observing lessons, providing feedback, and demonstrating teaching strategies. Detail may not sum to totals because of rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), "Public School Data File," 2015–16.

Table 6. Number and percentage of public schools where various programs or services were available before or after school, by selected school characteristics: 2015–16

Selected school characteristic	Schools where various programs or services were currently available before and after school					
	Instruction beyond the normal school day for students who need academic assistance		Instruction beyond the normal school day for students who seek academic advancement or enrichment		Day care	
	Number	Percent	Number	Percent	Number	Percent
All public schools	53,450	59.1	38,970	43.1	31,900	35.3
School classification						
Traditional public	48,960	58.6	35,500	42.5	29,190	35.0
Charter school	4,490	64.9	3,470	50.1	2,710	39.1
Community type						
City	16,790	67.8	13,400	54.1	10,830	43.7
Suburban	16,070	55.2	11,780	40.5	13,250	45.5
Town	7,170	58.9	4,850	39.9	2,600	21.4
Rural	13,430	55.0	8,940	36.6	5,220	21.4
School level						
Primary	29,030	57.6	20,890	41.4	27,900	55.3
Middle	9,440	68.1	7,030	50.8	2,390	17.2
High	10,590	59.1	7,930	44.3	570	3.2
Combined	4,390	53.3	3,120	37.9	1,040	12.6
Student enrollment						
Less than 100	2,270	34.8	1,460	22.4	530	8.1
100–199	4,260	58.4	3,170	43.4	1,410	19.3
200–499	20,260	56.8	14,300	40.1	14,090	39.5
500–749	14,710	64.1	11,120	48.4	10,890	47.5
750–999	5,590	60.9	4,220	46.0	3,450	37.6
1,000 or more	6,360	72.3	4,700	53.4	1,530	17.3
Percent of K–12 students who were approved for free or reduced-price lunches						
0–34	12,730	51.9	9,510	38.8	10,920	44.6
35–49	7,160	59.6	4,980	41.4	4,250	35.3
50–74	11,620	61.8	8,290	44.1	6,410	34.1
75 or more	20,050	66.6	14,630	48.6	9,220	30.6
School did not participate in free or reduced-price lunch program	1,890	38.0	1,570	31.5	1,100	22.1

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), "Public School Data File," 2015–16.

Table 7. Average school start time and percentage distribution of public school start times, by selected school characteristics: 2015–16

Selected school characteristic	Average start time	Percentage distribution of start times				
		Before 7:30 a.m.	7:30 a.m. to 7:59 a.m.	8:00 a.m. to 8:29 a.m.	8:30 a.m. to 8:59 a.m.	9:00 a.m. or later
All public schools	8:10	4.4	27.3	40.7	19.4	8.3
School classification						
Traditional public	8:10	4.3	27.4	40.3	19.5	8.5
Charter school	8:07	5.1	25.8	45.0	17.6	6.5
Community type						
City	8:11	4.3	26.6	37.5	21.3	10.3
Suburban	8:14	5.6	26.4	31.2	24.7	12.1
Town	8:06	2.6	29.2	50.2	14.8	3.2
Rural	8:06	3.7	28.2	50.6	13.3	4.3
School level						
Primary	8:17	1.6	22.9	39.3	25.5	10.6
Middle	8:04	6.7	35.4	39.2	12.2	6.3
High	7:59	10.4	35.8	40.4	9.6	3.8
Combined	8:07	4.0	22.4	51.9	14.6	7.1
Student enrollment						
Less than 100	8:10	3.6 !	22.2	44.6	22.2	7.5
100–199	8:11	3.9	20.0	53.3	16.0	6.8
200–499	8:13	2.5	24.9	42.7	21.1	8.8
500–749	8:11	3.8	30.1	36.4	20.3	9.4
750–999	8:07	4.9	33.1	37.7	16.4	8.0
1,000 or more	7:59	13.8	33.5	33.4	13.5	5.8
Percent of K–12 students who were approved for free or reduced-price lunches						
0–34	8:13	5.1	25.6	35.6	22.7	11.0
35–49	8:10	3.3	29.7	41.4	18.0	7.7
50–74	8:10	4.1	27.2	42.8	19.2	6.7
75 or more	8:08	4.4	28.2	42.8	17.3	7.4
School did not participate in free or reduced-price lunch program	8:10	3.7	25.4	43.4	19.6	7.9

! Interpret data with caution. The coefficient of variation (CV) for this estimate is between 30 percent and 50 percent (i.e., the standard error is at least 30 percent and less than 50 percent of the estimate).

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

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), "Public School Data File," 2015–16.

Table 8. Percentage distribution of public schools, by type of school program and selected school characteristics: 2015–16

Selected school characteristic	Regular school	Special program emphasis <sup>1</sup>	Special education <sup>2</sup>	Career/technical/vocational <sup>3</sup>	Alternative/other <sup>4</sup>
All public schools	87.2	3.7	1.5	1.6	6.0
School classification					
Traditional public	88.5	3.2	1.6	1.7	5.1
Charter school	71.4	10.1	1.2 !	‡	16.7
Community type					
City	80.5	8.1	2.2	1.6	7.7
Suburban	88.4	3.0	1.8	1.2	5.6
Town	87.8	1.3 !	1.5 !	2.5	6.9
Rural	92.2	1.2	0.6 !	1.7	4.3
School level					
Primary	94.8	4.0	0.3 !	‡	0.9
Middle	95.8	2.9	‡	#	‡
High	71.8	3.2	1.8 !	7.9	15.4
Combined	59.3	4.4	10.5	‡	25.4
Student enrollment					
Less than 100	37.8	2.2 !	15.5	2.1 !	42.4
100–199	73.0	2.4	3.1	‡	20.7
200–499	91.4	4.3	0.4	1.7	2.2
500–749	93.6	4.4	‡	1.1 !	0.8
750–999	93.7	3.2	#	2.7	0.4
1,000 or more	94.7	1.7	#	2.0	1.6
Percent of K–12 students who were approved for free or reduced-price lunches					
0–34	93.8	3.0	0.3 !	0.8	2.1
35–49	95.1	2.9	‡	0.9 !	0.8
50–74	91.4	3.7	1.2	0.6 !	3.1
75 or more	83.2	4.2	3.0	1.0	8.6
School did not participate in free or reduced-price lunch program	43.4	5.8	3.0 !	15.0	32.9

# Rounds to zero.

! Interpret data with caution. The coefficient of variation (CV) for this estimate is between 30 percent and 50 percent (i.e., the standard error is at least 30 percent and less than 50 percent of the estimate).

‡ Reporting standards not met. The coefficient of variation (CV) for this estimate is 50 percent or greater (i.e., the standard error is 50 percent or more of the estimate).

<sup>1</sup> Special program emphasis includes schools such as science or math schools, performing arts schools, talented or gifted schools, foreign language immersion schools, etc.<sup>2</sup> Special education school primarily serves students with disabilities.<sup>3</sup> Career/technical/vocational school primarily serves students being trained for occupations.<sup>4</sup> Alternative/other school offers a curriculum designed to provide alternative or nontraditional education; does not specifically fall into the categories of regular, special program emphasis, special education, or vocational school.

NOTE: Detail may not sum to totals because of rounding and because some data are not shown.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), "Public School Data File," 2015–16.

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



Table A-1. Standard errors for table 1: Total number of public schools and students, and percentage of schools and students that participated in the Title I and federal free or reduced-price lunch programs, by selected school characteristics: 2015–16

Selected school characteristic	Total number of schools	Total number of students	Title I services		Federal free or reduced-price lunch program	
			Percent of all schools with students that received services	Percent of all K–12 students that received services	Percent of all schools that participated	Percent of all K–12 students who were approved for free or reduced-price lunches
All public schools	300	460,760	0.65	0.70	0.35	0.48
School classification						
Traditional public	340	454,790	0.71	0.72	0.35	0.49
Charter school	210	138,710	1.73	2.27	1.41	1.89
Community type						
City	190	274,680	1.27	1.42	0.57	1.02
Suburban	180	302,900	1.16	1.09	0.49	0.82
Town	360	165,160	1.77	1.84	1.12	1.10
Rural	390	209,440	1.33	1.29	0.88	0.88
School level						
Primary	240	222,330	0.91	0.91	0.43	0.60
Middle	170	143,470	1.58	1.42	0.39	1.04
High	370	415,480	1.24	1.27	0.97	1.13
Combined	350	148,100	2.15	2.29	1.89	1.88
Student enrollment						
Less than 100	460	20,600	3.82	3.84	3.25	2.81
100–199	390	56,820	2.91	2.67	1.29	1.82
200–499	600	228,990	1.08	1.09	0.46	0.76
500–749	530	319,620	1.27	1.39	0.44	0.91
750–999	350	295,070	1.96	1.86	0.77	1.25
1,000 or more	320	500,460	1.86	1.57	0.67	1.25
Percent of K–12 students who were approved for free or reduced-price lunches						
0–34	570	419,420	1.29	0.99	†	0.27
35–49	410	268,820	1.74	1.44	†	0.19
50–74	540	359,580	1.36	1.73	†	0.25
75 or more	530	294,900	1.17	1.17	†	0.25
School did not participate in free or reduced-price lunch program	310	190,680	2.43	2.97	†	†

† Not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), "Public School File," 2015–16.

Table A-2. Standard errors for table 2: Number and percentage of public schools that had any students with an Individual Education Plan (IEP) because of special needs, and schools with instruction specifically designed to address the needs of English-language learners (ELLs) or limited-English proficient (LEP) students, by selected school characteristics: 2015–16

Selected school characteristic	IEP because of special needs			Schools with instruction specifically designed to address the needs of ELL/LEP students	
	Number of schools with at least 1 student on an IEP	Percent of schools with at least 1 student on an IEP	Percent of K–12 students with an IEP	Number	Percent
All public schools	370	0.25	0.10	580	0.61
School classification					
Traditional public	400	0.27	0.11	570	0.63
Charter school	210	0.23	0.27	190	1.84
Community type					
City	220	0.49	0.23	330	1.17
Suburban	190	0.33	0.17	300	0.93
Town	350	0.80	0.23	290	1.65
Rural	390	0.48	0.18	390	1.35
School level					
Primary	260	0.26	0.15	460	0.82
Middle	140	0.71	0.23	200	1.32
High	370	0.62	0.18	340	1.54
Combined	340	1.06	0.56	250	2.33
Student enrollment					
Less than 100	410	2.73	2.24	330	3.81
100–199	380	1.07	0.78	290	2.76
200–499	600	0.14	0.19	590	1.04
500–749	530	0.08	0.19	480	0.95
750–999	340	0.31	0.35	320	1.29
1,000 or more	320	0.20	0.19	310	0.95
Percent of K–12 students who were approved for free or reduced-price lunches					
0–34	580	0.43	0.19	500	1.14
35–49	410	0.42	0.23	370	1.64
50–74	540	0.48	0.19	460	1.31
75 or more	530	0.34	0.22	510	1.08
School did not participate in free or reduced-price lunch program	310	2.58	0.87	230	3.59

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), "Public School Data File," 2015–16.

Table A-3. Standard errors for table 3: Number and percentage of schools that offered any courses entirely online, and among those schools that offered courses entirely online, the percentage distribution of schools, by number of courses that are offered online and selected school characteristics: 2015–16

Selected school characteristic	Number of schools that offered courses entirely online	Percent of schools that offered courses entirely online	Among schools that offered at least one course entirely online, percentage distribution of schools that offered				
			One or a few courses online	Some courses, but less than half of all courses online	About half of all courses online	A majority of all courses online	Offered all courses online
All public schools	440	0.47	1.44	1.33	0.48	0.93	1.00
School classification							
Traditional public	450	0.53	1.50	1.47	0.50	1.00	1.06
Charter school	130	1.66	3.77	3.21	1.40	2.11	2.66
Community type							
City	240	0.97	3.59	3.37	1.67	1.61	2.55
Suburban	270	0.89	2.95	2.55	0.81	1.82	1.91
Town	180	1.35	3.90	3.53	†	2.48	2.90
Rural	270	0.98	2.27	2.06	0.69	1.53	1.30
School level							
Primary	190	0.38	4.67	2.96	†	†	†
Middle	170	1.19	5.55	2.84	†	1.77	†
High	360	1.58	1.91	1.85	0.80	1.25	0.93
Combined	280	1.98	3.15	2.71	0.85	1.86	2.26
Student enrollment							
Less than 100	280	3.37	5.14	4.19	2.11	4.59	5.08
100–199	200	2.52	4.62	4.36	†	2.66	2.17
200–499	280	0.75	2.42	2.23	0.48	1.10	1.32
500–749	200	0.84	2.89	2.78	1.39	1.31	†
750–999	140	1.37	3.85	3.84	†	†	†
1,000 or more	210	1.84	2.94	2.75	0.81	1.10	0.96
Percent of K–12 students who were approved for free or reduced-price lunches							
0–34	280	1.02	2.75	2.31	0.63	0.77	†
35–49	170	1.28	3.17	2.78	†	1.67	†
50–74	240	1.17	3.61	3.37	1.23	2.37	†
75 or more	300	0.94	2.84	2.56	1.24	1.57	2.02
School did not participate in free or reduced-price lunch program	210	3.54	4.87	4.80	†	5.72	5.55

† Not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), "Public School Data File," 2015–16.

Table A-4. Standard errors for table 4: Total number of full-time and part-time school staff (head counts), by type of staff and selected school characteristics: 2015–16

Selected school characteristic	Vice principals and assistant principals	Instructional coordinators and supervisors, such as curriculum specialists	Librarians/ library media specialists	School counselors, excluding psychologists and social workers	Student support services professional staff				
					Nurses	Social workers	Psychologists	Speech therapists or pathologists	Other student support services professional staff
All public schools	1,131	1,504	714	1,399	734	833	805	919	2,752
School classification									
Traditional public	1,125	1,466	702	1,399	746	809	797	900	2,724
Charter school	359	398	202	407	190	206	185	241	440
Community type									
City	689	919	357	776	419	497	494	600	1,724
Suburban	698	1,098	456	992	441	512	417	560	1,573
Town	364	442	320	532	358	258	285	379	754
Rural	435	552	488	630	474	363	420	518	936
School level									
Primary	606	1,168	526	646	521	652	576	860	2,224
Middle	411	571	254	484	316	348	324	289	828
High	899	852	417	1,256	414	438	513	422	970
Combined	351	382	239	468	369	285	266	428	825
Student enrollment									
Less than 100	176	299	209	382	441	384	366	372	834
100–199	255	317	312	392	349	303	335	325	484
200–499	573	986	644	828	681	614	664	974	1,574
500–749	619	962	528	826	578	488	559	772	1,610
750–999	587	768	373	731	432	382	394	544	968
1,000 or more	1,005	870	448	1,367	437	320	529	486	765
Percent of K–12 students who were approved for free or reduced-price lunches									
0–34	817	1,032	646	1,148	651	485	610	801	1,136
35–49	568	621	437	751	464	317	374	538	1,244
50–74	725	852	511	899	611	414	582	717	948
75 or more	750	941	534	893	613	636	643	811	1,742
School did not participate in free or reduced-price lunch program	262	357	205	431	272	179	235	306	658

See notes at end of table.

Table A-4. Standard errors for table 4: Total number of full-time and part-time school staff (head counts), by type of staff and selected school characteristics: 2015–16—Continued

Selected school characteristic	Regular Title I aides	English as a second language (ESL) or bilingual teacher aides	Special education aides	Library media center aides	Other classroom aides
All public schools	3,737	1,682	7,357	979	4,143
School classification					
Traditional public	3,641	1,691	7,380	971	3,942
Charter school	776	349	1,278	189	931
Community type					
City	2,163	987	3,838	476	2,260
Suburban	2,493	1,026	4,961	581	2,695
Town	1,415	498	2,306	342	1,498
Rural	1,420	753	2,927	532	1,626
School level					
Primary	3,258	1,536	5,775	776	3,817
Middle	1,171	405	2,410	371	912
High	1,052	583	3,731	425	985
Combined	731	292	2,892	243	980
Student enrollment					
Less than 100	619	200	2,058	189	715
100–199	909	308	2,685	230	891
200–499	2,553	1,159	4,923	697	2,823
500–749	2,380	1,074	4,514	597	2,799
750–999	1,553	629	3,308	316	1,677
1,000 or more	1,355	602	4,107	416	1,218
Percent of K–12 students who were approved for free or reduced-price lunches					
0–34	2,205	806	5,113	577	2,895
35–49	1,242	467	3,390	485	1,576
50–74	1,751	1,048	4,690	500	2,013
75 or more	2,578	1,269	4,714	614	2,626
School did not participate in free or reduced-price lunch program	512	173	1,488	137	844

See notes at end of table.

Table A-4. Standard errors for table 4: Total number of full-time and part-time school staff (head counts), by type of staff and selected school characteristics: 2015–16— Continued

Selected school characteristics	Secretaries and other clerical support staff	Food service personnel	Custodial and maintenance personnel	Data coaches or data coordinators	Technology specialists	Security guards or security personnel	School Resource Officers/other law enforcement officers	Other employees not previously mentioned
All public schools	2,646	3,786	3,330	838	1,190	1,842	965	3,152
School classification								
Traditional public	2,632	3,797	3,247	815	1,155	1,837	946	3,048
Charter school	837	1,130	720	200	269	383	205	666
Community type								
City	1,681	2,169	1,722	491	622	1,429	666	2,008
Suburban	1,780	2,568	2,082	470	702	875	555	1,576
Town	978	1,910	1,461	275	441	242	330	1,109
Rural	1,237	2,272	1,738	400	690	611	448	1,795
School level								
Primary	1,213	2,665	1,759	587	809	795	620	2,202
Middle	886	1,548	1,275	293	380	512	326	1,191
High	2,496	3,097	2,741	474	769	1,558	667	1,422
Combined	1,022	1,228	1,298	246	377	396	236	1,039
Student enrollment								
Less than 100	574	790	690	173	398	834	218	620
100–199	707	972	836	177	445	294	242	413
200–499	1,577	2,745	2,224	570	790	849	739	1,590
500–749	1,734	2,928	2,289	415	648	798	513	2,145
750–999	1,443	2,366	1,850	304	506	625	334	1,227
1,000 or more	2,841	3,435	2,891	327	549	1,160	608	1,157
Percent of K–12 students who were approved for free or reduced-price lunches								
0–34	2,179	3,204	2,576	505	772	944	614	1,776
35–49	1,361	2,270	1,967	300	527	517	363	910
50–74	2,220	2,740	2,237	376	544	1,063	543	1,441
75 or more	1,689	2,961	2,112	498	672	1,379	714	1,810
School did not participate in free or reduced-price lunch program	853	726	875	147	423	359	210	1,148

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), "Public School Data File," 2015–16.

Table A-5. Standard errors for table 5: Number and percentage of public schools that had staff with specialist or academic coaching assignments, and among those schools, the percentage that had staff with a particular specialist or academic coaching assignment, by selected school characteristics: 2015–16

Selected school characteristic	Number of schools that had staff with specialist or coaching assignments	Percent of all schools that had staff with specialist or coaching assignments	Among schools that had staff with specialist or coaching assignments, percent that had						General instructional/ not subject-specific coaches
			Reading specialists	Math specialists	Science specialists	Reading coaches	Math coaches	Science coaches	
All public schools	580	0.61	0.78	0.82	0.59	0.86	0.73	0.52	0.81
School classification									
Traditional public	600	0.66	0.83	0.86	0.60	0.92	0.78	0.55	0.86
Charter school	190	1.84	2.11	2.54	1.76	2.26	2.22	1.79	2.31
Community type									
City	310	1.12	1.54	1.55	1.07	1.70	1.50	1.06	1.50
Suburban	340	1.11	1.27	1.42	1.08	1.53	1.31	0.91	1.42
Town	300	1.70	2.07	2.13	1.46	2.14	1.78	1.08	2.06
Rural	340	1.26	1.41	1.77	1.15	1.72	1.39	0.77	1.50
School level									
Primary	450	0.84	0.93	0.98	0.66	1.14	0.90	0.59	1.14
Middle	210	1.51	1.91	2.07	1.65	1.95	1.92	1.43	1.88
High	280	1.42	2.49	2.17	1.55	2.09	1.82	1.63	2.17
Combined	240	2.25	2.55	2.61	2.54	2.50	2.36	1.77	2.95
Student enrollment									
Less than 100	240	3.11	5.79	6.09	5.04	5.85	4.87	4.74	6.33
100–199	300	2.94	3.47	3.55	2.73	3.41	2.41	1.43	3.49
200–499	560	1.07	1.22	1.34	0.85	1.39	1.23	0.73	1.30
500–749	480	1.24	1.60	1.32	1.02	1.55	1.40	0.97	1.62
750–999	310	1.79	2.31	2.28	1.77	2.45	2.35	1.52	2.44
1,000 or more	270	1.79	2.50	2.34	1.55	2.45	2.14	1.64	2.23
Percent of K–12 students who were approved for free or reduced-price lunches									
0–34	460	1.12	1.36	1.50	1.11	1.62	1.37	0.84	1.37
35–49	340	1.83	1.86	2.11	1.71	2.42	2.08	1.27	2.29
50–74	440	1.45	1.56	1.72	1.19	2.00	1.68	1.12	1.78
75 or more	460	1.23	1.56	1.50	0.98	1.55	1.45	0.95	1.56
School did not participate in free or reduced-price lunch program	190	2.91	4.38	4.07	3.47	4.11	3.94	2.50	4.31

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), "Public School Data File," 2015–16.

Table A-6. Standard errors for table 6: Number and percentage of public schools where various programs or services were available before or after school, by selected school characteristics: 2015–16

Selected school characteristic	Schools where various programs or services were currently available before and after school					
	Instruction beyond the normal school day for students who need academic assistance		Instruction beyond the normal school day for students who seek academic advancement or enrichment		Day care	
	Number	Percent	Number	Percent	Number	Percent
All public schools	618	0.68	649	0.70	500	0.56
School classification						
Traditional public	622	0.72	647	0.75	500	0.61
Charter school	173	1.87	144	1.84	175	2.09
Community type						
City	331	1.27	370	1.45	299	1.18
Suburban	384	1.28	381	1.26	343	1.21
Town	300	1.98	251	1.89	192	1.42
Rural	401	1.39	342	1.33	280	1.17
School level						
Primary	523	0.98	533	1.03	450	0.88
Middle	222	1.51	223	1.57	167	1.20
High	360	1.63	310	1.48	105	0.58
Combined	243	2.35	199	1.90	118	1.35
Student enrollment						
Less than 100	266	3.52	211	2.93	117	1.79
100–199	285	2.74	265	2.86	194	2.32
200–499	545	1.18	475	1.19	456	1.01
500–749	444	1.35	398	1.36	390	1.33
750–999	285	1.99	233	1.84	229	1.89
1,000 or more	279	1.64	231	1.85	140	1.34
Percent of K–12 students who were approved for free or reduced-price lunches						
0–34	448	1.37	383	1.38	376	1.28
35–49	343	1.99	308	2.09	291	1.92
50–74	432	1.51	359	1.50	348	1.47
75 or more	424	1.26	443	1.32	356	1.05
School did not participate in free or reduced-price lunch program	173	2.88	168	2.81	141	2.72

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), "Public School Data File," 2015–16.



Table A-7. Standard errors for table 7: Average school start time and percentage distribution of public school start times, by selected school characteristics: 2015–16

Selected school characteristic	Average start time	Percentage distribution of start times				
		Before 7:30 a.m.	7:30 a.m. to 7:59 a.m.	8:00 a.m. to 8:29 a.m.	8:30 a.m. to 8:59 a.m.	9:00 a.m. or later
All public schools	0.007	0.26	0.62	0.65	0.59	0.40
School classification						
Traditional public	0.007	0.27	0.65	0.68	0.62	0.42
Charter school	0.021	0.82	1.83	2.06	1.44	1.03
Community type						
City	0.016	0.51	1.35	1.21	1.21	0.92
Suburban	0.013	0.54	1.03	1.22	1.03	0.82
Town	0.014	0.46	1.59	1.78	1.26	0.74
Rural	0.011	0.45	1.21	1.32	1.04	0.58
School level						
Primary	0.009	0.24	0.75	1.00	0.92	0.61
Middle	0.016	0.77	1.61	1.58	1.15	0.74
High	0.016	0.88	1.64	1.45	0.94	0.71
Combined	0.020	0.83	1.90	2.18	1.52	1.12
Student enrollment						
Less than 100	0.037	1.27	3.43	3.94	3.05	1.56
100–199	0.028	0.96	2.40	2.54	2.09	1.54
200–499	0.010	0.35	0.89	1.13	1.04	0.67
500–749	0.013	0.51	1.14	1.20	1.16	0.85
750–999	0.023	0.76	2.15	1.89	1.52	1.26
1,000 or more	0.019	1.36	1.88	1.81	1.35	0.98
Percent of K–12 students who were approved for free or reduced-price lunches						
0–34	0.014	0.52	1.12	1.24	1.18	0.85
35–49	0.019	0.58	1.78	1.92	1.72	1.10
50–74	0.015	0.61	1.44	1.57	1.25	0.86
75 or more	0.012	0.49	1.12	1.26	0.96	0.69
School did not participate in free or reduced-price lunch program	0.037	0.89	2.68	3.69	3.10	1.63

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), "Public School Data File," 2015–16.

Table A-8. Standard errors for table 8: Percentage distribution of public schools, by type of school program and selected school characteristics: 2015–16

Selected school characteristic	Regular school	Special program emphasis	Special education	Career/technical/ vocational	Alternative/other
All public schools	0.47	0.27	0.21	0.17	0.37
School classification					
Traditional public	0.50	0.28	0.22	0.18	0.41
Charter school	1.71	1.03	0.43	†	1.47
Community type					
City	1.06	0.76	0.41	0.33	0.74
Suburban	0.81	0.43	0.49	0.27	0.62
Town	1.56	0.42	0.48	0.62	1.26
Rural	0.79	0.27	0.20	0.39	0.70
School level					
Primary	0.46	0.41	0.14	†	0.19
Middle	0.93	0.55	†	†	†
High	1.64	0.50	0.73	0.86	1.53
Combined	2.11	0.83	1.28	†	2.28
Student enrollment					
Less than 100	3.55	0.85	2.58	1.02	3.54
100–199	2.46	0.67	0.90	†	2.30
200–499	0.67	0.50	0.10	0.33	0.31
500–749	0.65	0.54	†	0.33	0.19
750–999	0.98	0.74	†	0.63	0.17
1,000 or more	0.94	0.50	†	0.59	0.45
Percent of K–12 students who were approved for free or reduced-price lunches					
0–34	0.73	0.52	0.13	0.23	0.55
35–49	0.82	0.62	†	0.36	0.33
50–74	1.03	0.66	0.32	0.22	0.68
75 or more	1.05	0.53	0.56	0.31	0.82
School did not participate in free or reduced-price lunch program	3.28	1.26	0.93	2.19	3.38

† Not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), "Public School Data File," 2015–16.

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

## Overview of the NTPS School Survey

The National Teacher and Principal Survey (NTPS) 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. NTPS is a nationally representative sample survey of public K–12 schools, principals, and teachers in the 50 states and the District of Columbia. This is the first year of NTPS.

The 2015–16 NTPS consisted of questionnaires for three types of respondents: public schools, public school principals, and public school teachers. The information can be linked across teachers, principals, and schools. There is a separate data file for each type of respondent (school, principal, and teacher). For the content of the questionnaires, see <https://nces.ed.gov/surveys/ntps/question1516.asp>.

NTPS was designed to produce national estimates for public elementary and secondary schools, principals, and teachers, including national estimates for public charter schools and the principals and teachers within them. Additionally, the teacher survey was designed to produce national estimates of teachers by subject matter taught and by full-time or part-time status.

**For additional information on the specific NTPS-related topics discussed in this appendix, consult the *Survey Documentation for the 2015–16 National Teacher and Principal Survey* (Cox et al. forthcoming) or the *User’s Manual for the 2015–16 National Teacher and Principal Survey, Volumes 1–4* (Goldring et al. 2017). To access additional general information on NTPS or for electronic copies of the questionnaires, go to the NTPS home page (<https://nces.ed.gov/surveys/ntps>).**

## Sampling Frames and Sample Selection

The starting point for the 2015–16 NTPS public school sampling frame was the preliminary 2013–14 Common Core of Data (CCD) Nonfiscal School Universe data file.<sup>1</sup> The sampling frame was adjusted from CCD to fit the definition of a school eligible for NTPS. To be eligible for NTPS, 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 that case, they were treated as different schools if they had different administrators (i.e., principal or school head). This definition is unchanged from the Schools and Staffing Survey (SASS).

The 2015–16 NTPS universe of schools is confined to the 50 states plus the District of Columbia and excludes the other jurisdictions, Department of Defense overseas schools, and CCD schools that do not offer teacher-provided classroom instruction in grades 1–12 or the ungraded equivalent. This last group includes schools that are essentially administrative units that may oversee entities that provide classroom instruction or may only provide funding and oversight. While Bureau of Indian Education-funded (BIE) schools are included in NTPS, these schools were not oversampled and the data do not support separate BIE estimates.

The NTPS definition of a school is generally similar to the CCD definition, with some exceptions. Like SASS, NTPS allows schools to define themselves. During SASS collections, Census Bureau staff observed that in situations where two or more schools have the same administration, these schools were reported separately on CCD but generally reported as one entity for SASS. Thus, CCD schools with the

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<sup>1</sup> For more information about CCD, see <https://nces.ed.gov/ccd/>.

same location, address, and phone number were collapsed during the frame building on the assumption that the respondent would consider them to be one school. Due to similarities with SASS, NTPS also followed the same type of collapsing procedure. A set of rules was applied 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 CCD were all modified to reflect the change.

Finally, since CCD and NTPS differ in scope and their definition of a school, some records were deleted, added, or modified to provide better coverage and a more efficient sample design for NTPS. For a detailed list of frame modifications, see the *Survey Documentation for the 2015–16 National Teacher and Principal Survey* (Cox et al. forthcoming). After deleting, collapsing, and adding school records, the NTPS public school sampling frame consisted of about 87,600 traditional public schools and 6,500 public charter schools.

NTPS uses a systematic, probability proportionate to size (PPS) sample (for an explanation of PPS sampling, see Cochran 1977). Unlike SASS, NTPS did not stratify schools prior to sampling. Rather, some types of schools were oversampled based on specific characteristics such as the following:

- School grade level (primary, middle, high, combined);
- Collapsed urbanicity (city, suburban, town, rural); and
- Charter status.

In addition to oversampling based on specific school characteristics, sample sizes were inflated for schools in the six states with the smallest number of schools: Alaska, District of Columbia, Hawaii, Rhode Island, Vermont, and Wyoming.

Prior to sampling, schools were sorted by the following:

- charter status;
- school grade level (four categories);
- urbanicity (four categories);
- poverty status (four categories);
- school size category (based on full-time equivalent [FTE] teachers; two categories for middle and combined charter schools, three categories for all other schools);
- school type for noncharter schools (four categories);
- state; and
- the number of FTE teachers.

These sampling procedures resulted in a total public school sample of about 7,130 traditional public schools and 1,170 public charter schools.

## **Data Collection Procedures**

In 2015–16, NTPS employed a combined mail-based and internet survey approach, with subsequent telephone and in-person follow-up. Data collection included the Teacher Listing Form, the Principal Questionnaire, the School Questionnaire, and the Teacher Questionnaire. This report focuses on the School Questionnaire.

In preparation for school-level data collection, advance letters were mailed to the sampled schools in June 2015 to verify their addresses. Initial school packages were mailed in September 2015.<sup>2</sup> Next, schools were telephoned using a computer-assisted telephone-interviewing instrument to verify school information, establish a survey coordinator, and follow up on the Teacher Listing Form if the school had not already provided an electronic teacher list. The in-person follow-up period was preceded by phone calls from the telephone centers to remind the survey coordinators to have staff complete and return all forms. Data collection ended in August 2016.

One of the main goals of the data collection plan for the 2015–16 NTPS was to target the schools that presented a challenge to data collection during previous administrations of SASS. These “known difficult” schools have resulted in poor response rates for certain school types (e.g., large schools in urban areas). Sampled schools that have a known large impact on weighting were targeted, as well. These schools were identified during sampling, and their data collection priority flag was set accordingly. Contact strategies that were more proactive during the early phases of data collection were employed during 2015–16 NTPS data collection to mitigate potential low response rates for these cases. Survey coordinators also were utilized during data collection. The role of the survey coordinator was to be the primary contact person at the school. A survey coordinator’s duties included facilitating data collection by passing out questionnaires to the appropriate staff, reminding the staff to complete their questionnaires, and collecting the questionnaires to return. The data collection follow-up strategies for schools with a survey coordinator were different from schools without a survey coordinator, with the more proactive approach taken for those schools without a survey coordinator.

An additional sample of schools was selected to test the impact of offering internet response at the onset of data collection on the school-level questionnaire response rates. The schools offered this option were purely experimental—that is, their data are not included in the final data files and products, and their response rates were not attributed to the 2015–16 NTPS response.

## **Data Processing and Imputation**

The Census Bureau checked returned questionnaires, keyed the data, and implemented 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,<sup>3</sup> a blanking edit,<sup>4</sup> and a logic edit.<sup>5</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 for these cases using two main approaches. First, donor respondent methods, such as hot-deck imputation, were used. Second, if no suitable donor case could be matched, the few remaining items were imputed using mean or mode from groups of similar cases to impute a value to the item with missing data. 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

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<sup>2</sup> The NTPS school package contained a letter to the principal, an interior envelope containing a letter to the survey coordinator, the Teacher Listing Form, the Principal Questionnaire, the School Questionnaire, and postage-paid return envelopes.

<sup>3</sup> The consistency edits identified inconsistent entries within each case and, whenever possible, corrected them. If the inconsistencies could not be corrected, the inconsistent entries were deleted.

<sup>4</sup> Blanking edits delete answers to questions that should not have been filled in (e.g., if a respondent followed a wrong skip pattern).

<sup>5</sup> Data were added to questionnaire records during the logic edits, which filled in some items where data were missing or incomplete using other information on the same questionnaire or from other related data sources.

tried to determine an appropriate value. Edit and imputation flags, indicating which edit or imputation method was used, were assigned to each relevant survey variable. For further information, see the sections on data processing and imputation in the *Survey Documentation for the 2015–16 National Teacher and Principal Survey* (Cox 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 NTPS unit response rate was produced by dividing the weighted number of respondents who completed questionnaires by the weighted number of eligible sampled cases, using the initial base weight (the inverse of the probability of selection).<sup>6</sup> The weighted response rate using the initial base weight was 72.5 percent for public schools.

**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, the NTPS school file was evaluated for potential bias. National-level estimates were first examined for potential bias. The base-weighted<sup>7</sup> unit response rate was calculated. The following frame characteristics were used for the Public School Data File:

- *Charter status:* noncharter, charter
- *Enrollment:* less than 200, 200 to less than 500, 500 to less than 750, 750 to less than 1,000, 1,000 or more
- *Percent of enrollment with race other than White:* less than 5 percent, 5 to less than 10 percent, 10 to less than 20 percent, 20 to less than 30 percent, 30 to less than 50 percent, 50 percent or more
- *Percent free or reduced-price lunch eligible:* less than 35 percent, 35 to less than 50 percent, 50 to less than 75 percent, 75 percent or more
- *Community type (locale):* city, suburb, town, rural
- *Pupil-teacher ratio:* less than 10, 10 to less than 15, 15 to less than 20, 20 or more
- *Grade level:* primary, middle, high, combined
- *Region:* Northeast, Midwest, South, West
- *Number of teachers:* less than 10, 10 to less than 25, 25 to less than 50, 50 to less than 75, 75 or more
- *Title I status:* Title I program, Title I noneligible, Title I eligible but no Title I program

First, the base-weighted distribution of responding schools was compared to the base-weighted distribution of sampled schools through *t* tests to find any school groups with potential bias prior to weighting adjustments. Table B-1 presents national-level school groups with a statistically significant difference in base-weighted percentages between the sampled cases and respondents. Additionally, the unit base-weighted response rate of each school group was compared to the overall base-weighted response rate through a *t* test and the base-weighted distribution of responding schools and the base-weighted distribution of nonrespondents were compared through a likelihood ratio chi-square test to find any groups that would have been over- or under-represented by the respondents without nonresponse adjustment. The results for each set of tests were consistent with the results presented in table B-1. Each school group listed in table B-1 had a significant difference in response rate from the overall response rate

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<sup>6</sup> For the formula used to calculate the unit response rate, see *2012 Revision of NCES Statistical Standards: Final* (NCES 2014-097).

<sup>7</sup> Unit nonresponse bias analysis was conducted using the base weight, defined as the product of the initial base weight (the inverse of the probability of selection) and the sampling adjustment factor. The sampling adjustment factor is an adjustment that accounts for circumstances that affect the school's probability of selection that are identified after the data collection has begun, such as a merger, duplication, or incorrect building-level collapsing (e.g., a junior high school and a senior high school merge to become a junior/senior high school).

and the respondents and nonrespondents had different distributions by each sampling characteristic listed in table B-1.

Table B-1. Indication of potential sources of bias for public school data at the national level based on comparisons between frame distribution and base-weighted or nonresponse-adjusted respondent distributions: 2015–16

Potential source of bias			Base-weighted respondent distribution	Nonresponse- adjusted respondent distribution
Estimate level	Characteristic	Value		
National	Enrollment	Less than 200	x	x
National	Enrollment	200 to less than 500	x	
National	Enrollment	750 to less than 1,000	x	
National	Enrollment	1,000 or more	x	x
National	Community type	City	x	
National	Community type	Suburban	x	
National	Community type	Town	x	
National	Community type	Rural	x	
National	Number of teachers	10 to less than 25	x	x
National	Number of teachers	50 to less than 75	x	
National	Number of teachers	75 or more	x	x
National	Percent free lunch eligible	Less than 35%	x	x
National	Percent free lunch eligible	35% to less than 50%	x	
National	Percent free lunch eligible	50% to less than 75%	x	
National	Percent free lunch eligible	75% or more	x	
National	Percent non-White	Less than 5%	x	
National	Percent non-White	5% to less than 10%	x	
National	Percent non-White	10% to less than 20%	x	
National	Percent non-White	50% or more	x	
National	Grade level	Combined	x	
National	Region	Northeast	x	
National	Region	Midwest	x	
National	Title I status	Noneligible	x	
National	Title I status	Eligible, but no program	x	

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

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), “Public School Documentation Data File,” 2015–16.

Weighting adjustments were designed to reduce or eliminate nonresponse bias and to reduce the variance introduced due to sampling by adjusting the sample estimates to known totals from the frame. The final-weighted comparisons to eligible cases shown in table B-1 reflect the effect of weighting adjustment. This table shows that weighting adjustments eliminated most but not all evidence of potential bias. Evidence of potential bias remains after weighting adjustments for the following national-level items included in the analysis:

- Enrollment, for schools with less than 200 students and schools with 1,000 or more students;
- Number of teachers, for schools with 10 to less than 25 teachers, 75 or more teachers; and
- Percent free or reduced-price lunch eligible, for schools where less than 35 percent of students were eligible for free or reduced-price lunches.

For further information on unit response rates and nonresponse bias analysis, see the *Survey Documentation for the 2015–16 National Teacher and Principal Survey* (Cox 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 NTPS item response rate is calculated by dividing the weighted number of respondents who provided an answer to an item by the weighted number of respondents who were eligible to answer that item.<sup>8</sup> Table B-2 provides a summary of the weighted item response rates. For the public school data, five of the survey items included in this report have item response rates less than 85 percent. Those items were (1) the write-in portion of question 1-6, describe the school; (2) question 2-5b item 13, difficulty in filling other vacancies; (3) question 3-3, minimum number of community service hours required of 2016 high school graduates; (4) question 4-4b, number of students in K–12 schools approved for free or reduced-price lunch; and (5) question 5-2, governance structure of public charter school. For further information on item response rates and bias analysis, see the *Survey Documentation for the 2015–16 National Teacher and Principal Survey* (Cox et al. forthcoming).

Table B-2. Summary of weighted item response rate, by survey: 2015–16

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	96.6	3.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), “Public School Documentation Data File,” 2015–16.

## Weighting

The general purpose of weighting is to scale up the sample estimates to represent the target survey population. For NTPS, a base weight is used as the starting point. In most cases, this base weight is the simple reciprocal of the unit’s probability of selection on the frame (the initial base weight), and in other cases, adjustments are made to this frame base weight to reflect multiple chances of selection from the frame or other situations such as subsampling.

Next, a series of nonresponse adjustment factors are calculated and applied based on a weighting cell adjustment. Weighting cells are developed using tree search algorithms. These cells are selected to be homogeneous in response propensity within cells and heterogeneous in response propensity across cells (response propensity is the underlying chance that a particular sample unit will respond by completing the questionnaire: its individual response rate). The adjustment is the inverse of the weighted response rate within each cell, and each respondent in the cell receives this adjustment. Nonrespondents are given weights of zero and the respondents are reweighted to represent the nonrespondents. The variables examined for potential bias were the same as those used by the tree search algorithms. All of the subgroups that showed potential bias as given in table B-1 above were used as cell generators by the tree search algorithms, as well as other subgroups which are related, and may show differential response conditional on other subgroups (i.e., they may be chosen as cell generators by the tree search algorithm within particular branches).

Finally, for the school file, a raking factor is calculated and applied to the sample to adjust the sample totals to the frame totals, so that the sum of the weights within each of the specified cells is equal to the corresponding frame total for the cell. These cells are defined based on school level, urbanicity, and percentage of students eligible for free or reduced-price lunch. The weights are then adjusted to the control totals by an iterative process, referred to as raking, until the weights simultaneously aggregate to

<sup>8</sup> For the formula to calculate the item response rate, see *2012 Revision of NCES Statistical Standards: Final* (NCES 2014-097).

be equal to each set of control totals. In some cases, extreme weights may be trimmed back to a cutoff value. This all improves the precision of survey estimates.

The product of these factors is the final weight for each NTPS respondent, which appears as SFNLWGT on the NTPS Public School Data File.

The counts in table 1 (in the Estimate Tables section) do not necessarily match the frame counts because some cases in the frame were found to be ineligible (i.e., out of scope). Some of the counts for selected school characteristics may not match between school and principal data files due to independent weighting procedures, differential nonresponse, rounding, and not every school having a principal.

## **Variance Estimation**

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

One method of calculating sampling errors of complex sample designs is jackknife replication. Jackknife replication methods involve dropping a small portion of the sample from the full sample and computing the statistic of interest for the retained and reweighted sample (the jackknife replicate). The sum of squares of the replicate estimates around the full sample estimate provides an estimate of the variance of the statistic. The NTPS school data file includes a set of 200 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 NTPS respondents are SREPWT1–SREPWT200 for schools.

## **Reliability of Data**

NTPS 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 NTPS 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.

## **Comparability to SASS**

NTPS is a new survey that is strongly based on SASS. However, care must be taken in estimating changes over time in data elements that both surveys have in common because some of the change measured 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 the questionnaire item wording, or other changes. Additionally, NTPS is a different survey than SASS and pulls data from a larger variety of sources and timeframes than SASS did. While SASS collected data on student race/ethnicity, special programs, and high school graduation, the 2015–16 NTPS gets this information from external sources. Data on student gender and race/ethnicity are taken from the 2014–15 CCD, while

graduation rates come from the 2014–15 *EDFacts* data and information on special programs<sup>9</sup> came from the 2013–14 Civil Rights Data Collection.

Additionally, the 2015–16 NTPS is not representative at the state level, and comparisons to SASS may only be made at the national level. Private sector schools are also excluded from the 2015–16 NTPS. The next round of NTPS, in 2017–18, will include private sector schools and be representative at the state level.

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<sup>9</sup> Special programs include magnet programs, gifted programs, disciplinary programs, Advanced Placement classes, and International Baccalaureate classes.

## **Appendix C: Description of Variables**

## Description of Variables

The variables that are included in this report are listed in table C-1. Those with variable names that begin with “S” and are followed by four digits are survey variables that come from items on the school questionnaire. The variables without the letter plus four-digit names are “derived 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 National Center for Education Statistics publications and have been added to the data files to facilitate data analysis. The definitions for the created variables follow table C-1.

Table C-1. Variables used in the *Characteristics of Public Elementary and Secondary Schools in the United States: Results From the National Teacher and Principal Survey* report: 2015–16

Variable	Variable name in data file
Charter school identifier <sup>1</sup>	CHARFLAG
Four-category school level <sup>1</sup>	SCHLEV_4CAT
Number of courses that are offered entirely online	S0126
Number of K–12 students approved for free or reduced-price lunch	S0410
Number of K–12 students that participate in Title I program	S0414
Number of K–12 students with an Individual Education Plan (IEP) because of special needs	S0401
Official start time at the school	S0117
Percentage of students in the school approved for the National School Lunch Program <sup>1</sup>	NSLAPP_S
School offered instruction specifically designed to meet the needs of limited-English proficiency (LEP)/English language learner (ELL) students.	S0130
School participation in the National School Lunch Program	S0409
School type	S0120
Staff–full-time/part-time positions or assignments	S0212–S0263
Student enrollment in K–12 and ungraded <sup>1</sup>	SCHSIZE
Total number of K–12 and ungraded students	S0115
Urban-centric school locale code <sup>1</sup>	URBANS12
Whether the school has before-school or after-school program for students who need assistance	S0127
Whether the school has before-school or after-school program for students who seek advancement	S0128
Whether the school has before-school or after-school day care programs	S0129
Whether the school has general instructional/not subject-specific coach(es)	S0270
Whether the school has math coach(es)	S0268
Whether the school has math specialist(s)	S0265
Whether the school has reading coach(es)	S0267
Whether the school has reading specialist(s)	S0264

See notes at end of table.

Table C-1. Variables used in the *Characteristics of Public Elementary and Secondary Schools in the United States: Results From the National Teacher and Principal Survey* report: 2015–16—Continued

Variable	Variable name in data file
Whether the school has science coach(es)	S0269
Whether the school has science specialist(s)	S0266
Whether the school has students who receive Title I services	S0412
Whether the school has students with Individual Education Plans (IEPs) because of special needs	S0400
Whether the school offers any courses entirely online	S0125

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

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Teacher and Principal Survey (NTPS), “Public School Data File,” 2015–16.

**Charter school identifier (CHARFLAG):** A flag variable taken from the Public School Data File that identifies charter schools. 1 = School is a public charter school, 2 = School is a traditional public school. A charter school is a public school that in accordance with an enabling state statute has been granted a charter exempting it from selected state or local rules and regulation. CHARFLAG is based on S0500 from the Public School Data File.

**Four-category school level (SCHLEV\_4CAT):** Taken from the Public School Data File, SCHLEV\_4CAT is a four-category variable based on grades reported by the school: primary, middle, high, and combined. Primary schools are those with at least one grade lower than 5 and no grade higher than 8. Middle schools have no grade lower than 5 and no grade higher than 8. High schools have no grade lower than 7 and at least one grade higher than 8. Combined schools are those with at least one grade lower than 7 and at least one grade higher than 8, or with all students in ungraded classrooms.

**Percentage of students in the school approved for the National School Lunch Program**

**(NSLAPP\_S):** Taken from the Public School Data File, NSLAPP\_S is a continuous variable created by dividing the number of K–12 and ungraded students approved for free or reduced-price lunches (S0410) by the total number of K–12 and ungraded students enrolled (S0115) among schools that participated in the National School Lunch Program (NSLP) (S0409=1). Schools that did not participate in the NSLP have valid skip values. For this report, NSLAPP\_S is recoded as a categorical variable describing the proportion of students approved for free or reduced-price lunches.

**Student enrollment in K–12 and ungraded (SCHSIZE):** Taken from the Public School Data File, SCHSIZE is a categorical variable based on the number of K–12 and ungraded students enrolled in the school (S0115). For this report, SCHSIZE was recoded into six categories for public schools.

**Urban-centric school locale code (URBANS12):** Taken from the Public School Data File, URBANS12 is a created variable collapsed from the 12 category urban-centric school locale code (SLOCP12) that was updated to incorporate Census population and geography information and recoded into four categories: city, suburban, town, and rural.