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The School Librarian Investigation

Decline or Evolution?

Perspectives on School Librarian Employment in the United States, 2009-10 to 2018-19

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SLIDE: The School Librarian Investigation—Decline or Evolution?

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EXECUTIVE SUMMARY

Keith Curry Lance & Debra E. Kachel

This study was funded by a Laura Bush 21st Century Librarian/Research in Service to Practice grant from the Institute of Museum and Library Services (IMLS) and conducted under the auspices of Antioch University Seattle. The data are from the Common Core of Data, the flagship data collection of the National Center for Education Statistics. Data for 2009-10 through 2018-19 were assessed, and substantial errors and omissions were addressed using state data sources. While these adjustments made little difference at the national level, they made a substantial difference in several states and districts.

National Perspective

- In 2018-19, there were more than **42,000 school librarians** in the U.S—almost **20% fewer** than in 2009-10. Over the same interval, Instructional Coordinators increased by almost 34%; District Administrators, by more than 16%, and School Administrators by more than 15%. Teachers were reduced by a little over 1%.

- In 2009-10, if school librarians were distributed equally across all schools, there would have been a half-time librarian in every school nationwide. By **2018-19**, there was **less than a half-time librarian** (.43 FTE) in every school.

- In 2009-10, the **national ratio of students per librarian** was 939 to 1. In 2018-19, that ratio grew to 1,199 to 1—an almost **28% increase**.

- In 2009-10, the **national ratio of teachers per librarian** was 61 to 1. In 2018-19, that ratio grew to 75 to 1—a **23% increase**.

State Perspective

In the absence of school level data, a **state ratio of librarian FTE per school** was calculated. State contextual data regarding laws, regulations, policies, and practices related to the employment of school librarians were also collected.

- Between **2009-10 and 2018-19**, **all states lost** school librarian full-time equivalents (FTEs) **except New Hampshire** which gained almost 3%.

- In 2018-19, generally, there were **more school librarians** in the **eastern** half of the country than the **western** half. Among the four major U.S. regions, the Southern states had the largest concentrations of school librarians. In Texas alone, there were more librarians than in the bottom 20 states combined.

- Between 2015-16 and 2018-19, **school librarian FTEs rose in D.C.** (16%) **and 14 states**—Alabama (38%), Alaska (13%), Kansas and Michigan (7%), New York and Virginia (6%), New Hampshire (4%), California and Arkansas (2%), Wisconsin (1%), and South Carolina, Oregon, Texas, and Rhode Island (all less than 1% increases).

- Of the 10 states with the **lowest** state ratios of **librarian FTE per school** (.25 or fewer), 7 were **west of the Mississippi River**: California, Idaho, Oregon, South Dakota, Arizona, Wyoming, and Utah. Michigan, Minnesota, and Ohio round out the bottom 10 states.

- Of the 10 states with the **highest** state ratios of **librarian FTE per school** (.75 or higher), 9 were in the **South**: Arkansas, Georgia, South Carolina, Alabama, Virginia, Tennessee, Maryland, North Carolina, and Mississippi. Connecticut—the only state in this group outside the South—rounds out the top 10 states on this ratio.

- The 13 states with the **highest** ratios of **students per librarian** (1,500 or more to 1) include 8 **Western** states (New Mexico, Colorado, Nevada, Arizona, Utah, Oregon, Idaho, and California), 4 **Midwestern** states (Indiana, Ohio, Michigan, and Minnesota), and Massachusetts.

- The **lowest** state ratios of **students per librarian** (fewer than 750 to 1) occurred in 8 **Southern** states: Arkansas, Alabama, Mississippi, Kentucky, Tennessee, South Carolina, Virginia, and Louisiana.

- School librarians were **least prevalent** in states that **do not mandate** some level of school librarian staffing, and **less prevalent** in states that have such mandates but **do not enforce** them. They were most prevalent in states that have and enforce mandates.

- School librarians were **least prevalent** and most likely to experience job **loss** in states with **no institutions of higher education** preparing school librarians. As of Spring 2021, the 5 states with no such institutions were Alaska, Arizona, New Mexico, Oregon, and Wyoming.

District Perspective

At the district level, analyses focused on the following:

- the district ratio of librarian full-time equivalent (FTE) per school (a proxy for school level data),
- districts that employed any librarian FTE, or no librarians, from 2015-16 through 2018-19,
- whether or not districts that had no librarians by 2015-16 had reinstated any level of librarian staffing by 2018-19,
- the extent to which library support staff have replaced school librarians by state and over time,
- district ratios of students per librarian FTE and teachers per librarian FTE,
- districts affiliated with Future Ready Schools compared with those that were not, and
- charter districts.

District Ratio of Librarian FTE per School, 2018-19

- In 2018-19, of the almost 13,000 **local school districts** that reported about librarian staffing, **3,983 (31%)** had **no school librarians**. Districts with no librarians were more prevalent in the Midwest and West. Since 2015-16, numbers and percentages of districts with no librarians have increased.

- **Fewer than 25%** of districts reported a **.75 or greater librarian FTE per school** (i.e., enough for a full-time librarian in most schools).

- Districts with **no librarians** were likelier to be ones with **smaller enrollments** and to be located in **rural** areas. Districts with **high levels** of librarian staffing tended to have **larger enrollments** and to be located in **suburban** communities.

- Districts spending the most per pupil ($15,000+) were most likely to have high levels of librarian staffing and least likely to be without librarians. However, districts spending the least per pupil (less than $10,000) had better staffing than districts spending between $10,000 and $15,000 per pupil. Consequently, there was **no clear relationship between staffing and funding**.

- Districts with higher levels of **poverty**, more **minority** students, and more **English Language Learners** were **less likely** to have librarians. **Majority Hispanic** districts were **more than twice** as likely to have **no librarians** and **less than half** as likely to have the **highest level** of librarian staffing.

Districts Reporting Any Librarians & No Librarians, 2015-16 through 2018-19

- Almost **1 out of 4 districts** (23.3%) reported **no librarians from 2015-16 through 2018-19**. States with more districts consistently reporting no librarians were concentrated in the West and the northern tier of the Midwest.

- More than **3 out of 5** school districts (61.5%) employed **school librarians consistently since 2015-16**.

- Districts reporting **no librarians between 2015-16 and 2018-19** tend to have **smaller enrollments** and to be located in **rura**l communities. Districts that **sustained librarians** during that period tended to have **larger enrollments** and to be located in **cities or suburbs**.

- Districts spending the most per pupil ($15,000 or more) were more likely to maintain librarians and least likely to eliminate them. Nevertheless, there was **no clear relationship between staffing consistency and funding level**.

- Districts **without librarians** from 2015-16 through 2018-19 tended to serve **more poor** students, **more minority** students, and **more English Language Learners**, while those that retained librarians long-term tended to serve fewer such students. More than 3 out of 5 majority Hispanic districts (56.7%) had no librarians from 2015-16 through 2018-19.

Status of Districts Without School Librarians by 2015-16 in 2018-19

- **By 2015-16, 3,560** districts nationwide (**28%**) had **eliminated all** school librarians.

- **Nine out of 10** districts without librarians in 2015-16 (91%) had **not reinstated** them **by 2018-19**.

- By 2018-19, some level of school librarian staffing had been **reinstated** in only **9%** of districts that had eliminated school librarians completely by 2015-16.

Replacement of School Librarians with Library Support Staff

- In 2018-19, **almost half** of districts **with no librarians** (47.1%) reported some level of **library support staff**. In other words, these library support staff are working independently—without the guidance of librarians.

- Between 2009-10 and 2018-19, the percentage of **districts** employing library **support staff, but no librarians**, grew by more than half—from **almost 9% to over 12%**.

- More than 2 out of 5 districts employed library support staff, but no librarians, in 4 states: **Oregon** (46.0%), **Minnesota** (45.9%), **Idaho** (45.2%), and **Colorado** (40.4%).

- Over the past decade, the percentage of **library support staff** working in districts **without librarians** has **more than doubled** from **5% to 12%.**

- Nine states accounted for most library support staff working without librarians. In **Arizona**, 7 out of 10 library support staff (71.2%) were employed by districts without librarians. More than half (5 out of 10) of such staff in **South Dakota** (57.8%) and **Michigan** (55.9%) did not work with librarians. Four out of 10 **Alaska** library support staff (41.3%) lacked librarians. And more than 3 out of 10 such staff worked

without librarians in **Idaho** (35.5%), **Oregon** (35.1%), **Minnesota** (34.6%), **Delaware** (33.3%), and **Ohio** (31.6%).

District Ratios of Students & Teachers per Librarian FTE

- In 2018-19, there were **1,250 or more students for every librarian** in **1 out of 6** districts (17.1%). In about the same proportion of districts (17.9%) there are **fewer than 500 students per librarian**.
- In 2018-19, there were **90 or more teachers per librarian** in **1 out of 6** districts (16.9%). In only **1 out of 5** districts (19.5%) were there **fewer than 40 teachers per librarian**.

Future Ready Schools Districts

- In 2018-19, districts that had signed the Future Ready Schools (FRS) Pledge were **more likely** to provide the **highest level** of librarian staffing (.75 FTE or more per school) and **less likely** to have **no librarians**.
- Since at least 2015-16, FRS districts were **more likely** to have **kept librarians** and **less likely** to have been **without them**.

Charter Districts

- In 2018-19, there were **4,000 all-charter school districts** operating 5,203 schools. (This does not include charter schools operated by local school districts, for which separate data are not available.)
- There were **only 321 school librarians** in charter school districts in 2018-19. Thus, 90% of charter districts had no school librarians.

For Information About Your State & District and Districts Like Yours

More detailed data are reported at both state and district levels in the full report at https://libslide.org/publications/perspectives. Tables present many data details, and charts and maps help to visualize it for more intuitive understanding. In addition, visit the SLIDE project website, https://libslide.org, for links to related publications (journal articles, news items, infographics, and social media posts).

Most importantly, though, check out the SLIDE project's interactive web tools at https://libslide.org/data-tools/. These tools will enable you to generate tables, charts, and maps that summarize data for your state and school district as well as district like yours based on what you select from this study's 3 district characteristics (enrollment, locale, per pupil expenditures) and 3 student demographics (poverty, race/ethnicity, and English Language Learners).

Sources

ELSi Table Generator, Common Core of Data, National Center for Education Statistics (state and district data, 2009-10 to 2018-19). https://nces.ed.gov/ccd/elsi/tableGenerator.aspx

Kachel, D. E., & Lance, K. C. (2021, January 26). *Contexts for school librarian employment*. https://libslide.org/pubs/contexts.pdf

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Perspectives on School Librarian Employment in the United States, 2009-10 to 2018-19

Keith Curry Lance & Debra E. Kachel

Introduction

SLIDE—The School Librarian Investigation—Decline or Evolution?—is a 2020-2023 Research in Service to Practice project funded by a Laura Bush 21st Century Librarian grant from the Institute of Museum and Library Services and conducted under the auspices of Antioch University Seattle. One of the principal components of SLIDE is an analysis of the available data on school librarian employment at national, state, and district levels over the past decade. This analysis is one of the major deliverables of the first year, 2020-21. Also, during year one, a survey of the project's state intermediaries provided background information about policies, practices, and conditions affecting school librarian employment in each state. The report on that survey is titled *Contexts of School Librarian Employment* (Kachel & Lance, 2021). These state context data are employed in the state section of this document and will inform interviews to be conducted in year two, 2021-22. School leaders for districts where school librarian staffing gained or lost .50 FTE or more per school will be interviewed. The purposes of the interviews are to verify and clarify the nature of the staffing changes made and to better understand the experiences, perceptions, values, and rationales that led the interviewees to make the decisions they did. For a fuller explanation of the SLIDE project, more details about its activities, and access to its deliverables, visit the SLIDE website at http://libslide.org/.

This report will be presented as a series of questions followed by their answers. Two over-arching findings dominate this analysis: 1) dramatically reduced employment of school librarians since 2009-10, and 2) extreme inequities in the distribution of school librarians related to geography (state and region), district characteristics (enrollment, locale, and per-pupil school spending) and student demographics (poverty, race/ethnicity, and language status). Delineating those inequities, however, requires beginning with national and state perspectives on the data before examining it at the district level. Before all of that, however, it is important to acknowledge recent past research on this topic and the nature of the unique state- and district-level data sets on which this analysis is based.

Recent Past Research

What do we know about the status of school librarian employment based on recent past research?

Since 2016, the National Education Association (NEA), *School Library Journal* (SLJ), and *Education Week* have published reports or articles describing the scale of recent school librarian losses, identifying some of the trends driving them, and explaining which student populations have been most at risk of losing access to school librarians.

2016 NEA Study

In 2016, the National Education Association (NEA) published *Library/Media Centers in U.S. Public Schools: Growth, Staffing, and Resources* (Tuck & Holmes, 2016). Drawing on data from the now-defunct Schools and Staffing Survey (SASS) of the National Center for Education Statistics (NCES), it reported that, between 2007 and 2013, the number of full- and part-time school librarians (i.e., a head count) had increased by 8.2%. A major deficiency of the SASS data is that using head counts tends to over-estimate staff. (For example, if one full-time district librarian spends 4 hours a week in each of 10 schools, SASS counted them as 10 part-time librarians.)

2018 SLJ Articles

In March 2018, Lance and Kachel (the principal investigator and project director, respectively, of this project) authored two articles in *SLJ*'s "School Librarian State of the Union" series in which they reported the precipitous decline in school librarian full-time equivalents (FTEs) in the wake of the Great Recession and the confluence of circumstances that contributed to it.

In "School Librarian, Where Art Thou?" Lance (2018) reported that, between 2009-10 and 2015-16, more than 10,000 school librarian FTEs (19%) had been lost.

In "A Perfect Storm Impacts School Librarian Numbers", Kachel (2018) identified the national, state, and local/district trends that led to those losses. National trends included: aging and retirements, changes in national school accrediting agency standards, and loss of school librarian certification programs. State trends included: public education funding cuts, lack—or loss—of state mandates that schools have librarians, absence or elimination of state school library consultants, weakening of school librarian certification requirements, and increasing numbers of charter schools. And local/district trends included site-based management, turnover of staffing decision-makers, school leader priorities, increasing focus on standards-based testing, and evolving positions whose titles no longer include the word library or librarian.

In a third article in the "School Librarian State of the Union" series—"Charter Schools, Segregation, and School Library Access"—Jessen (2018) examined data for Chicago and California, making the case that the combination of race and ethnicity and charter schools exacerbates inequities of access to school librarians.

2018 Education Week Article

On May 16, 2018, *Education Week* published "Schools See Steep Drop in Librarians, New Analysis Finds," confirming—based on their research center's independent analysis—the major findings reported earlier in the *SLJ* articles (Sparks & Harwin, 2018). In addition to reiterating that school librarian job losses since 2009-10 have been staggering, they also reported that minority students have been affected disproportionately.

About the Data

What is the SLIDE project's data source and what are its strengths and weaknesses?

Ordinarily, an assessment of the strengths and weaknesses of existing data would be relegated to footnotes or an appendix. (See Appendix A for more details.) In this case, however, the available data's character and limits are such prominent issues that they must be noted at least briefly at the outset. (See Table 1.)

Since 2012, there has been no national survey of school libraries by the National Center for Education Statistics (NCES), the American Association of School Librarians (AASL), or any other organization. Indeed, compared to the extensive data reported annually for public and academic libraries, the almost total data vacuum about school libraries stands in dramatic contrast. This is particularly unfortunate given the dramatic changes of fortune experienced by many school libraries over the past decade.

Consequently, the only source of comprehensive national, state, and district level data about school libraries—or, more precisely, school library staffing—is the Common Core of Data (CCD) of NCES. CCD collects data on the employment of selected professional and paraprofessional educators—including school librarians and library support staff—in full-time equivalents (FTEs) at state and district levels.

Table 1. NCES Common Core of Data: Strengths & Weaknesses

Strengths	Weaknesses
National, state & district data	No school level data
Full-time equivalents (FTEs) instead of head counts	Outdated definition of school librarian
Related data on employment of other educators	Definition silent on certification
Related data on district characteristics and student demographics	Lag time in data reporting
	Non-compliant reporting in selected states

FTE data are preferable to head counts of full- and part-time staff, as the level of part-time staffing can be extremely variable. (Someone who works as a school librarian for three hours per week is part-time, as is someone who works 30 hours per week.) The only limitation of FTE counts is that we do not know how many actual positions or individual incumbents they represent.

Another limitation of the data is its time frame. When the SLIDE project began in September 2020, the latest available data for states and districts was for 2018-19. Addressing the consequences of the COVID-19 pandemic for librarian employment will have to wait for the final report of this project in 2023.

Most unfortunately, these FTE data are not available at the school or building level.[1]

As for the other selected educator positions for which CCD gathers FTE data, the definitions of a school librarian and a library support staff member date from the 1980s—and have never been updated (in the case of library positions, despite repeated urgings by AASL and others)—and those definitions make no reference whatsoever to the issue of professional certification.

Generally, AASL and school library advocacy groups focus on state-certified school librarians, regarding all other incumbents of school librarian positions as dubiously qualified. Again, though, NCES ignores the issue of certification for all educator positions, not just librarians.

So, in these four respects—no school level data, an old definition of "school librarian," overlooking state certification as an essential part of the definition, the time lag, and non-compliance by states and districts—the NCES data are imperfect.

Nonetheless, these data are what we have, and, at least, NCES is a comprehensive source providing data for almost all districts, every state, and thus the nation. CCD's other problematic weakness is state and district non-compliance (e.g., missing data, mis-reported data). Given the improvements made to the dataset by this project with help from state sources, these data are more than sufficient for this comprehensive, multi-level assessment of school librarian employment patterns and trends.[2]

The fact that the data we have on school librarian employment comes from NCES also provides the advantage of accompanying data on other types of school employment as well as district characteristics (enrollment, number of schools, and per pupil expenditures) and student demographics (race/ethnicity, poverty, language status, and disability status)—essential data for a thorough assessment of the inequities of access to school librarians and library support staff.

To describe these inequities of access as clearly as possible, this report examines the data from three perspectives: national, state, and district. Inequities from state to state are apparent when one compares national patterns and trends with those for individual states. And similarly, inequities from district to district

[1] Throughout this report, the term "school" refers to an individual school that is part of a regular local school district. A separate analysis was done for all-charter districts, the vast majority of which are actually individual charter schools.

[2] Appendix A discusses arcane issues relating to the data's validity and reliability and how we addressed them. Suffice it to say here that the NCES data employed in our analyses have been edited for selected states to address those issues. While it is usually best to accept federal statistical data, as is—"warts and all"—there were many known, consequential, and "fixable" issues for some states that it seemed advisable to correct.

are apparent when one compares figures for that level with those for a particular state and the nation as a whole.

While it is widely acknowledged that librarian staffing levels vary by grade level (elementary, middle, or high school), the lack of school level data makes it impossible to address that important factor. As CCD provides the number of librarian FTEs and the numbers of schools, students, and teachers for the nation, each state, and each district, it is possible to calculate the librarian FTE per school ratio as well as ratios of students and teachers per librarian FTE for each level of geography. It is important to remember, however, that these national, state, and district level ratios are summary figures that may or may not represent any particular school in a specific district.

National Perspective

How many school librarians are there in U.S. public schools, and how have their numbers changed over time?

As of 2018-19 (the latest data available), there were 42,279 full-time equivalent (FTE) librarians. In 2009-10 there were 52,545. Thus, the number of school librarian FTEs dropped by 10,266 (19.5%) over that interval. This loss cannot be attributed to declining enrollment. In 2018-19, there were 50.4 million students in U.S. public schools compared with 49.2 million in 2009-10—an increase of 1.2 million (2.4%).

In 2018-19, there were 42,279 librarians in the U.S.—10,266 (19.5%) fewer than in 2009-10.

Over the past decade, how do employment changes for school librarians compare with other key educator positions?

The CCD staffing data include FTE counts for 5 major types of educators: district administrators, school administrators, teachers, instructional coordinators, and school librarians. (See Appendix B for NCES's definitions of these positions.) As can be seen from Table 2 and Charts 1 and 2, the trends for these different positions over the past decade have been clear:

- Teacher FTEs have been relatively flat, despite minor fluctuations—usually no more than a fraction of a percentage point—from year to year;
- District Administrator and School Administrator FTEs have increased more years than not, resulting in substantial increases for those positions over the decade;
- Instructional Coordinator FTEs—particularly during the last half of the decade—have increased more dramatically than for any other educator position; and
- School Librarian FTEs—alone among these positions—have declined steadily, though at a noticeably slower rate during the last half of the decade.

The bottom-line numerical changes in employment for these different types of educators say much about the trends in public education employment. Between 2009-10 and 2018-19, numbers of district and school administrators and instructional coordinators rose steadily. Employment growth for those positions continued apace during the last half of the decade, 2015-16 to 2018-19. The trends for teachers and librarians were quite different. Compared to 2009-10, there were fewer teachers in 2018-19; but, the losses occurred early in the decade in the immediate aftermath of the Great Recession. Since 2010-11, teacher FTEs have risen, year by year, replacing almost half of the lost FTEs by 2018-19.

School librarians were the only educator group to lose FTEs in both time frames, 2009-10 to 2918-19 and 2015-16 to 2018-19.

The employment trend for school librarians is uniquely poor. Between 2009-10 and 2018-19, more than 10,000 librarian FTEs were lost. While losses between 2015-16 and 2018-19 were smaller, school librarians are the only one of these educator groups to see a sustained loss in their national FTE total during both time frames.

Who gets counted as a School Librarian?

The opposing trends for School Librarians (decreasing by almost 20% since 2009-10) and Instructional Coordinators (increasing by almost 34% during that period) are particularly noteworthy, given what we know—and don't know—about how FTEs are counted for these positions.

Most likely, the figures include everyone called a "School Librarian," no matter how much their 21st century job description may vary from NCES's 1980's definition. But, what about "school librarians" with other titles—both ones with other key words in them (e.g., librarian and information literacy teacher) as well as those excluding the "L" word altogether (e.g., educational technology-information literacy specialist, digital literacy teacher)? In the CCD instructions, data reporters are directed explicitly to sub-divide FTEs, if necessary. For

instance, if someone is perceived as a half-time School Librarian and a half-time Teacher, they would be reported as 0.50 FTE in each of those position categories.

Table 2. Numbers of School Librarian & Selected Other Educator FTEs, United States, 2009-10 to 2018-19

Position (in Full-Time Equivalents) School Year	District Administrators	School Administrators	Instructional Coordinators	Teachers	School Librarians
2009-10	63,969	168,450	74,502	3,209,672	52,545
2010-11	64,597	165,047	69,236	3,099,095	50,310
2011-12	62,884	166,416	67,711	3,103,263	48,406
2012-13	65,420	169,240	70,967	3,109,101	46,685
2013-14	66,732	168,101	72,935	3,113,764	45,106
2014-15	68,962	174,664	79,267	3,132,351	44,977
2015-16	67,778	182,006	87,495	3,151,497	43,531
2016-17	70,357	183,671	90,183	3,169,499	43,728
2017-18	74,411	189,155	95,746	3,169,750	42,882
2018-19	74,366	193,934	99,591	3,169,762	42,279
Net gain/loss 2009-10 to 2018-19	**+10,397**	**+25,484**	**+25,089**	**- 39,910**	**- 10,266**
Net gain/loss 2015-16 to 2018-19	**+6,588**	**+11,928**	**+12,096**	**+18,265**	**- 1,252**

Chart 1

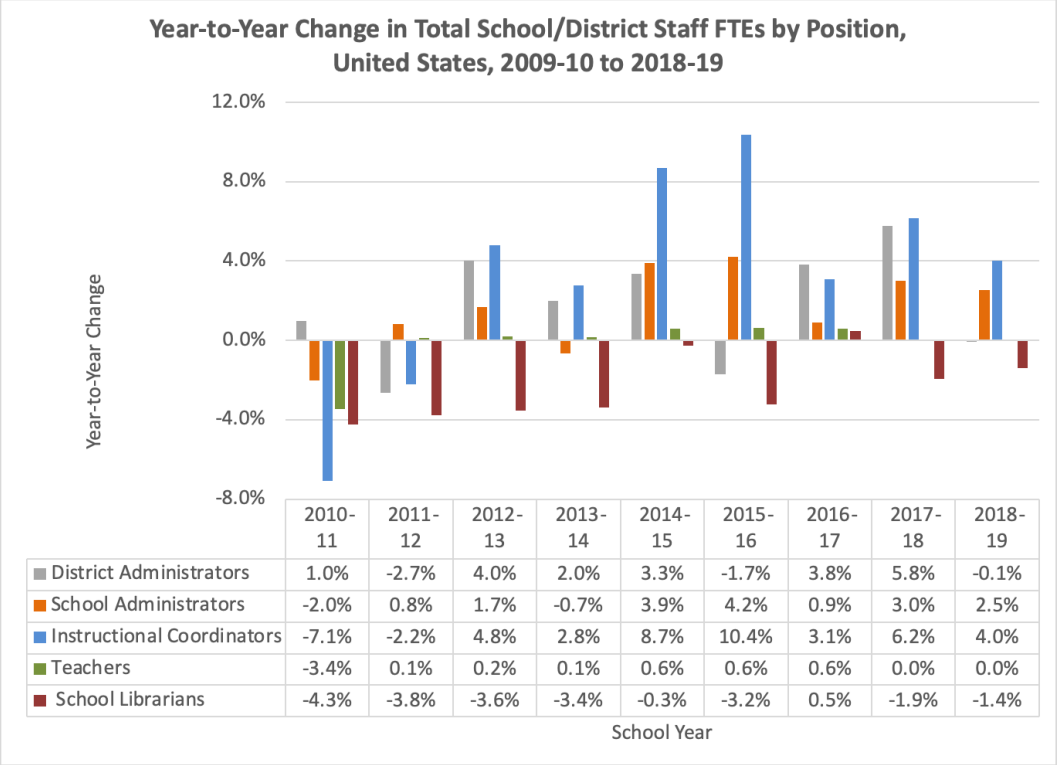
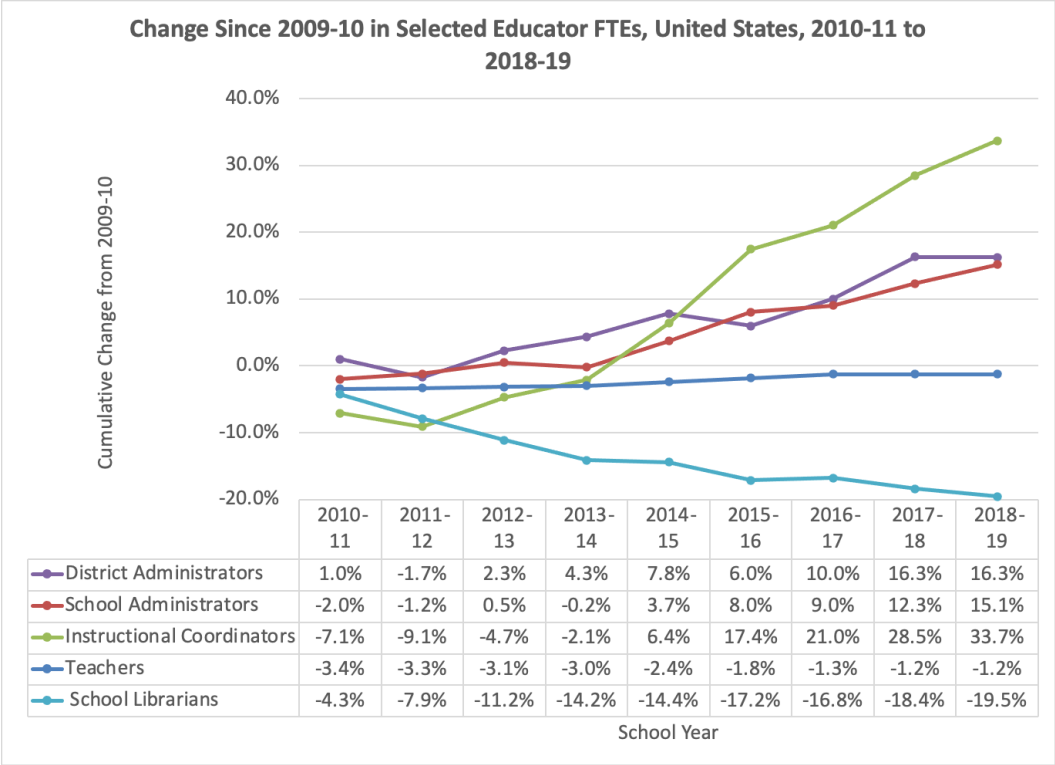


Chart 2



	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
District Administrators	1.0%	-1.7%	2.3%	4.3%	7.8%	6.0%	10.0%	16.3%	16.3%
School Administrators	-2.0%	-1.2%	0.5%	-0.2%	3.7%	8.0%	9.0%	12.3%	15.1%
Instructional Coordinators	-7.1%	-9.1%	-4.7%	-2.1%	6.4%	17.4%	21.0%	28.5%	33.7%
Teachers	-3.4%	-3.3%	-3.1%	-3.0%	-2.4%	-1.8%	-1.3%	-1.2%	-1.2%
School Librarians	-4.3%	-7.9%	-11.2%	-14.2%	-14.4%	-17.2%	-16.8%	-18.4%	-19.5%

How else might a School Librarian be counted—or not counted?

What complicates this most of all, however, is the position, Instructional Coordinator—a position (indeed, perhaps more of a position category) more inclusive than any of the others. The inclusiveness of this position may go far in explaining its growth over the past decade. NCES's examples of such positions could overlap with the responsibilities of present-day school librarians: supervisors of educational television staff, supervisors of audio-visual services, curriculum coordinators and in-service training staff, and supervisory staff engaged in the development of computer-assisted instruction. (See Appendix B for the full definition.) Our searches for school librarian job descriptions and announcements with alternative titles have turned up positions with titles including terms such as cultural literacy, digital learning, learning resources, information literacy, and instructional technology—positions that may have been reported to NCES as School Librarians, Teachers, or Instructional Coordinators or not reported at all.

How will SLIDE improve knowledge of how School Librarians are perceived and counted?

This potential blurring of roles between school librarians, instructional coordinators, and other staff will be addressed by another major component of the three-year SLIDE project. One-hundred in-depth interviews of staffing decision-makers from selected districts nationwide will be conducted by trained, independent interviewers during 2022.

The purposeful, extreme-cases sample of local districts will be drawn from 1) those that gained the most librarian FTEs per school between 2015-16 and 2018-19, 2) those that lost the most librarian FTEs per school during that interval while retaining some, and 3) those that lost the most librarian FTEs per school after 2015-16, leaving them with none by 2018-19. Each interviewee in the last two groups will be asked questions to determine if their district's staffing model enables them to count librarian FTEs completely and accurately or if their staffing model now separates traditional librarian responsibilities (i.e., those included in the NCES definition) and present-day ones, such as those that involve providing access to digital and streaming media, teaching information literacy skills and STEM/STEAM classes, and facilitating inquiry-based learning. Such responsibilities might be assigned to positions now reported to NCES as instructional coordinators or teachers or perhaps not reported to NCES at all.

One of the sets of questions that will be explored with decision-makers during SLIDE's interviews is what factors accounted for decisions to increase, maintain, or decrease school librarian staffing. Conventional wisdom is that the most frequent explanation offered for cuts of school librarian positions is a lack of sufficient funding. Given the trends in employment of other types of educators, funding alone cannot explain the apparent losses of school librarian jobs. If funding alone were the explanation, how could employment of other types of educators be growing? Surely, the priorities of decision-makers, their conception of the job of a school librarian, and their perception of its relative value compared to other types of educators are factors in their decisions.

Another even more intriguing set of questions during the SLIDE interviews will explore how decision-makers have chosen to staff library, learning resources, and technology services in their districts or schools. Could it be that some school librarian positions have evolved into new ones with job descriptions so different from NCES's outdated one—perhaps even to the extent of having different job titles—that district officials who report staffing FTEs in NCES's CCD survey no longer perceive them as school librarians? Some such newer positions may even help to account for the extraordinary increase in instructional coordinators—the most likely existing job category where such "evolved" positions might be reported, if they are reported at all.

Beyond providing a comprehensive sense of the status of school librarianship as a profession, this national perspective is important for identifying the baseline against which equity of access to a school librarian will be assessed at state and district levels. Whenever equity is an issue, a fundamental question about it is equity compared to what? This question will be answered in reference to three ratios: librarian FTE per school, students per librarian FTE, and teachers per librarian FTE.

For the national perspective, each of these ratios is calculated using national figures: for librarian FTE per school, the nation's total librarian FTEs are divided by the nation's total number of schools; for students per librarian FTE, the nation's total student enrollment is divided by the nation's total librarian FTEs; and for teachers per librarian FTE, the nation's total teacher FTEs are divided by the nation's total librarian FTEs. While these ratios constitute summary data in the extreme, they answer the baseline question: what would school librarianship look like in each school and for each student and teacher, if school librarians were equally distributed among schools nationwide? While the resulting national ratio figures do not represent the status of school librarianship for a lot of states, districts, and schools, they do provide a theoretical baseline against which equity can be assessed at those levels.[3]

[3] The national ratio of librarian FTE per school is the total librarian FTE for the nation divided by the total number of schools for the nation. The national ratio of students per librarian FTE is the total number of students for the nation divided by the total number of librarian FTEs for the nation. And, the national ratio of teacher FTE per librarian FTE is the total number of teacher FTEs for the nation divided by the total number of librarian FTEs for the nation.

National Ratio of Librarian FTE per School

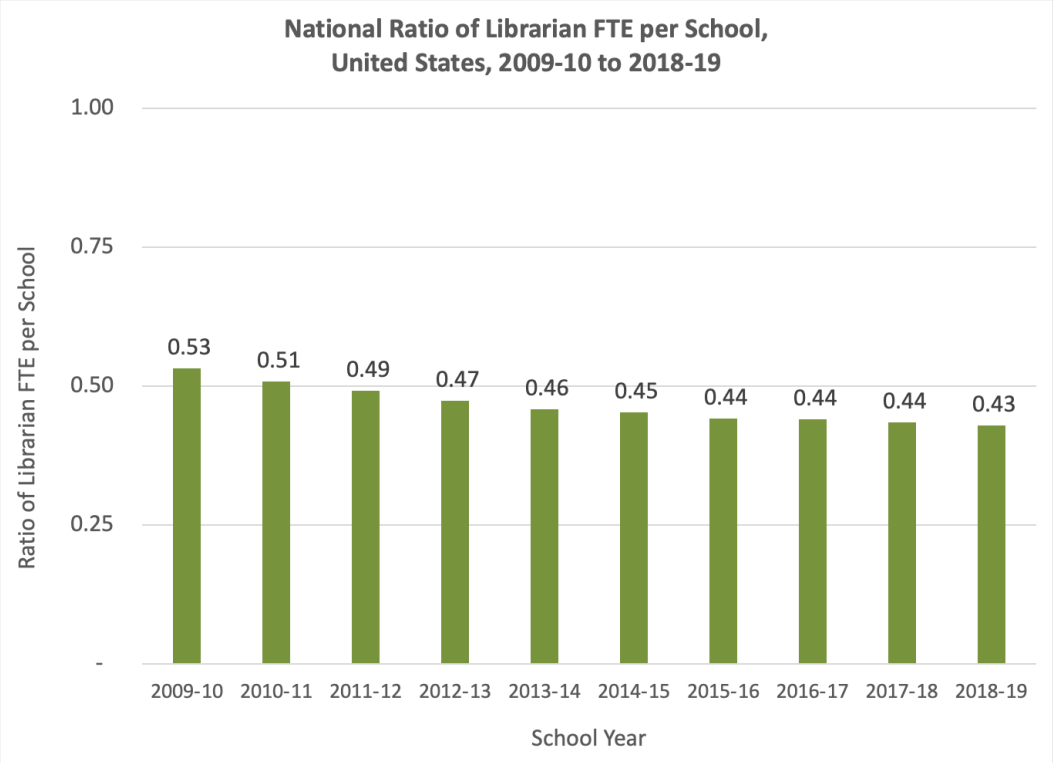
If the nation's school librarians had been equally distributed across all schools in local school districts in 2018-19, what would have been the librarian FTE in each school?

Because NCES only reports librarian FTEs for states and districts, this study utilizes a ratio of librarian FTE per school to estimate the potential extent of a librarian's presence in individual school buildings. As the last decade began—for the 2009-10 school year—the national ratio of librarian FTE per school was 0.53 FTE. In other words, if the nation's 52,545 school librarians that year had been evenly distributed across all schools in local districts, there would have been just over a half-time librarian in every school. By 2018-19, when there were only 42,279 school librarians (19.5% fewer than in 2009-10), that ratio had declined to 0.43 FTE, less than a half-time librarian for every school. (See Chart 3.)

In 2009-10, there were enough school librarians to have a half-time (.53) librarian in every school nationwide. By 2018-19, there were only enough school librarians for less than a half-time (.43) librarian in every school.

Notably, this national pattern and trend stands in stark contrast to the national standards promulgated by the American Association of School Librarians (AASL), a division of the American Library Association (ALA). According to those standards, the minimum school library staffing requirements include a full-time, certified school librarian "in every school building at every grade level" (*Appropriate Staffing for School Libraries*, 2019*).* Based on the AASL standard and the 2018-19 figure of a 0.43 librarian FTE per school, the nation's total number of school librarians should be 133.6% higher, or 98,764—an increase of 56,485 FTEs. Notably, these figures about the discrepancy between the AASL staffing standard and reality are doubtless conservative ones, given that the NCES definition of a school librarian does not require state certification for the position. If it did, NCES's figures would almost certainly be smaller still.

Chart 3



Relative to the AASL staffing standard, current librarian FTEs nationwide are obviously grossly inadequate to meet that standard, and headed in the wrong direction over the past decade. Further, as will be seen when this ratio is examined from the state and district perspectives, the differences in reality among the states and D.C. and among districts with varying district characteristics and student demographics mean that access to school librarians is characterized by profound inequalities on the basis of multiple factors.

National Ratio of Students per School Librarian FTE

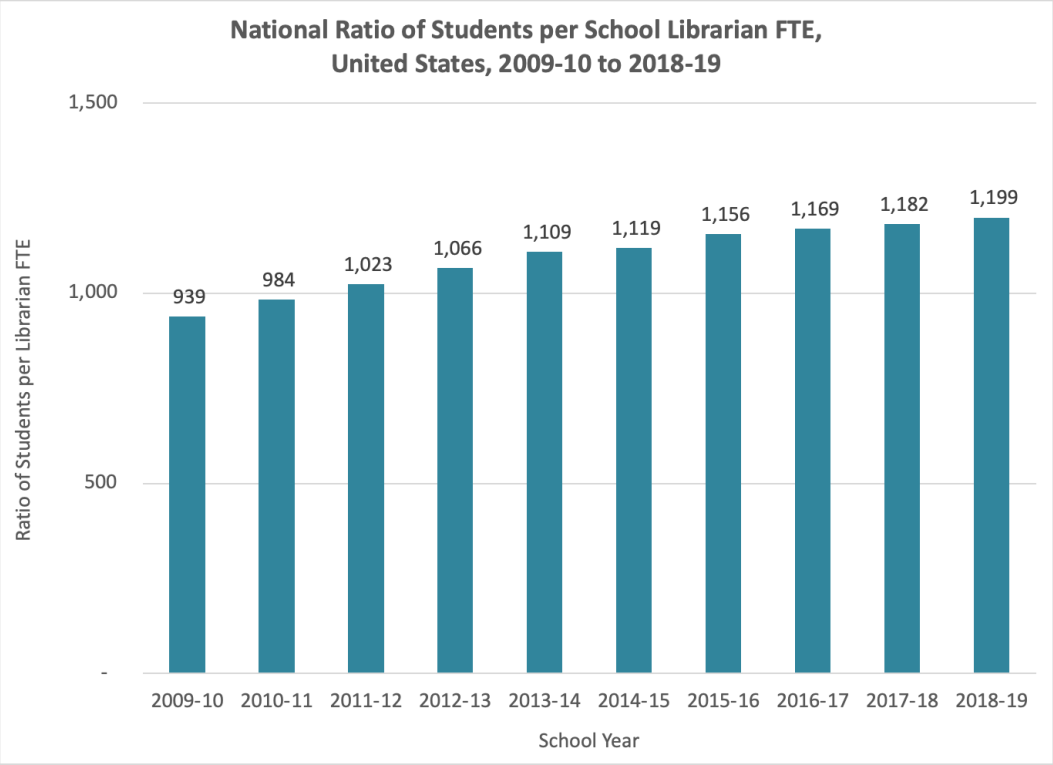
If students had had equal access to the nation's school librarians in 2018-19, what would have been the number of students served by each librarian FTE?

Over at least the last three decades, national school library standards (AASL, 1998, 2009, 2018) have asserted and promoted the idea that school librarians are teachers of students. Indeed, in many states and districts, school librarians are now called "teacher librarians." What school librarians are charged to teach is an ambitious, cross-disciplinary curriculum that should guarantee not only success in school, but also in college, career, and life in general. This curriculum aims to equip students to initiate inquiries, think critically, include diverse communities and perspectives, collaborate with peers, organize and share information, explore and reflect on what they discover, and create and share information ethically, both on their own and in groups. In order to meet these teaching expectations, it would be best to have a smaller ratio of students to librarians. (See Chart 3.)

In 2018-19, there were 1,199 students for every school librarian in the U.S.—an increase of 27.7% from 2009-10.

In 2009-10, the ratio of students per librarian FTE was 939:1; by, 2018-19, it was 1,199:1—a 27.7 percent increase. (See Chart 4.) To lend perspective, the ratio of students to teachers was 16:1 in both 2009-10 and 2018-19. Accordingly, the ratio of students to librarians in 2009-10 was 59 times the ratio of students to teachers, and, in 2018-19, it was 75 times the student/teacher ratio (NCES, 2019).

Chart 4



In reality, of course, this national ratio does not apply to most districts, because the national ratio divides the total number of students—including those in districts and schools with no librarians at all—by the total number of librarian FTEs—who are unequally distributed across states as well as the selected districts where they are present. Unfortunately, as the subsequent state and district perspectives will illustrate, the reality is one of acute inequities. In the real world of public schools, some districts and schools have librarians—improving the students per librarian math described above considerably—while others have no librarians at all. Not surprisingly, districts that have librarians have certain characteristics in common, while those without librarians share other, contrasting characteristics.

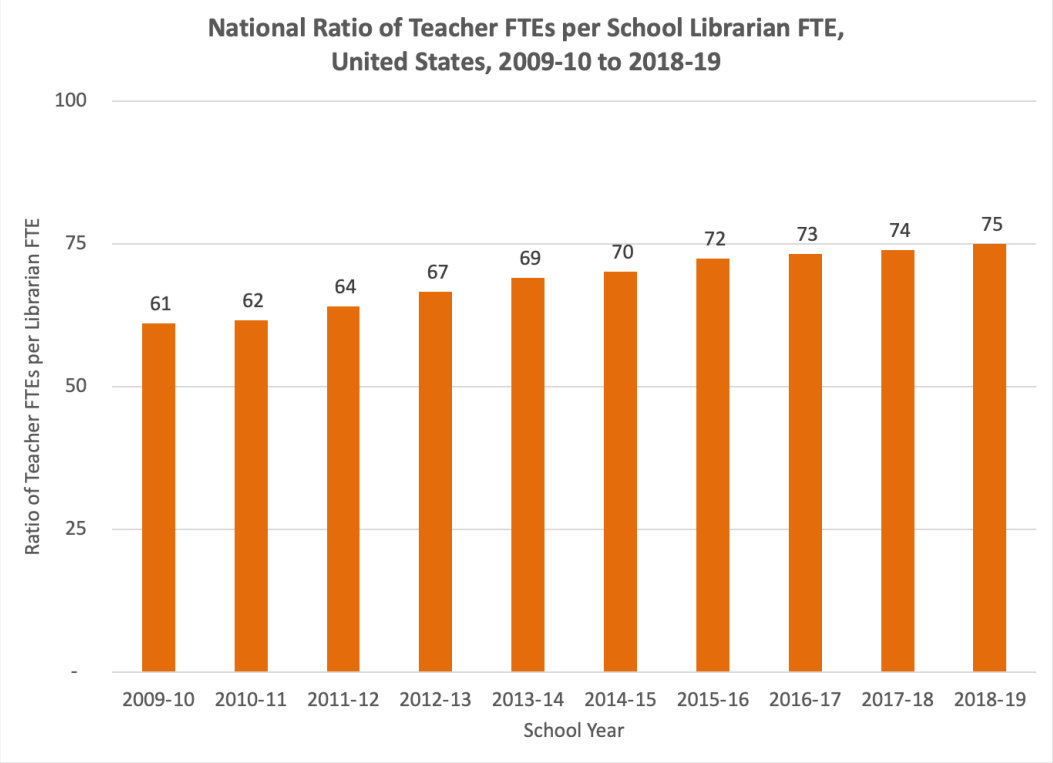
National Ratio of Teachers per School Librarian FTE

If teachers had had equal access to the nation's school librarians in 2018-19, what would have been the number of teachers served by each librarian FTE?

Establishing as a best practice that school librarians should be "teacher librarians," the national standards of the past three decades have promoted the belief that the success of a school librarian depends largely on collaboration with classroom teachers.

In 2009-10, the national ratio of teachers per librarian FTE was 61:1; by, 2018-19, it was 75:1. (See Chart 5.) Given a 180-day school year, that means that, in 2009-10, a school librarian determined to collaborate with every teacher in their school would have had some fraction of almost three days in which to do so. By 2018-19, the number of days into which collaboration would have had to be squeezed was reduced to less than two and a half.

Chart 5



Just as the students per librarian math is daunting, so it is for teachers per librarian. One-to-one collaboration is challenging, indeed, given the number of teachers per librarian. If that ratio prevailed at the school level, it is unlikely that a librarian, no matter how clever and energetic, would be able to collaborate intensively with every individual teacher in the school. That suggests that the best hope of librarians and teachers wishing to collaborate is to do so in groups based on grade level or subject.

In 2018-19, there were 75 teachers for every school librarian in the U.S.—an increase of 23.0% from 2009-10.

As with the students per librarian ratio, however, this national ratio belies greater inequities. Some districts are "haves"—having a full- or part-time librarian in most schools—while others are "have nots"—having no librarians at all, perhaps at best an occasional visit from one shared across the district. Some states have more "have" districts; others, more "have not" districts. Consequently, a teacher in a "have" district or school is going to receive some level of collaboration from a librarian in managing resources, designing and delivering instruction, and/or co-teaching inquiry-based learning that is entirely absent in a "have not" district or school.

State Perspective

The national figures belie enormous discrepancies in school librarian employment at state and regional levels. State geography alone contributes much to the harsh inequities of access to school librarians. This is evident when one considers the same numbers and ratios that were examined nationally: total numbers of school librarians, librarian full-time equivalent (FTE) per school, students per librarian FTE, and teacher FTE per librarian FTE.[4] In addition to zeroing in on how much these figures can vary by state, this perspective identifies two factors that are positive and significant predictors of the level of school librarian employment in a state.

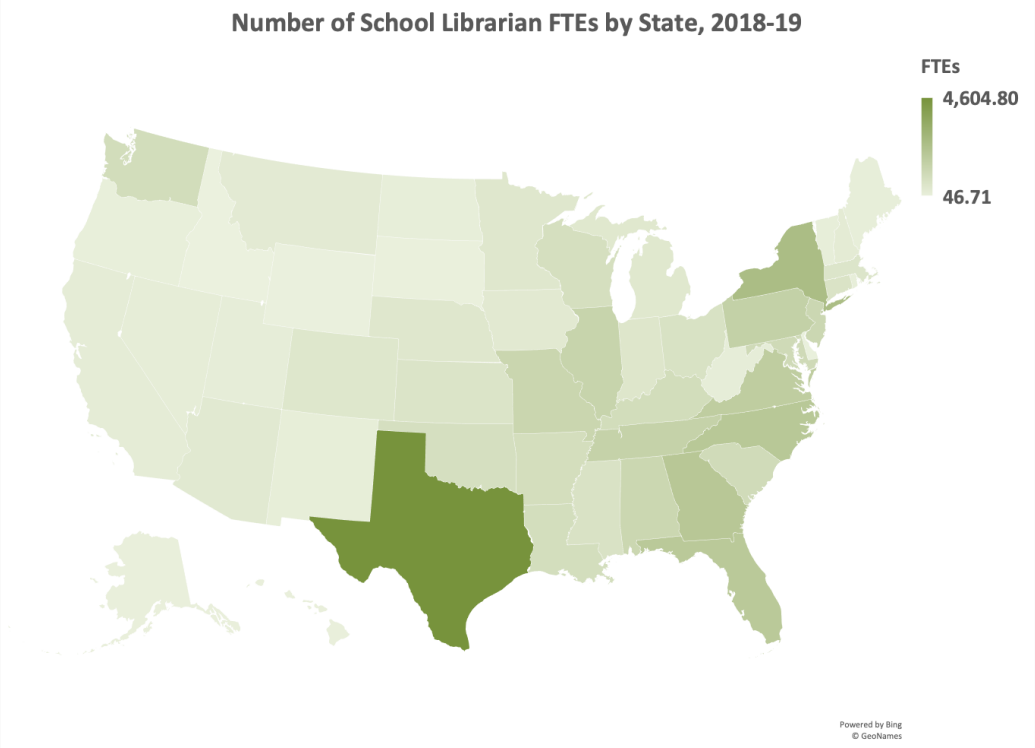
Number of School Librarians

How many school librarians are there in each state, and how do those numbers vary by region? How has each state's number of school librarians changed over time?

While there were 42,279 school librarian full-time equivalents (FTEs) nationwide in 2018-19, their distribution among the states varied dramatically by state and U.S. region (i.e., Northeast, South, Midwest, West). Map 1 illustrates the strong state and regional patterns in the distribution of school librarian FTEs. Generally, there were more school librarians in the eastern half of the country than the western half—with the notable exception of Texas. Given the distribution of the U.S. population, that pattern is not surprising. There are some regional surprises, though. Among the four major U.S. regions, it is clear that the Southern states have the largest concentrations of school librarians. Texas has more than 4,600 school librarian FTEs. That was more than 10% of the national total, almost as many as the next two states, New York and Georgia, combined (over 2,500 and over 2,000 respectively), and more than the bottom 20 states combined. (See Tables 3a and 3b.)

In 2018-19, there were 42,279 U.S. school librarians; but they were not equally distributed by state. In Texas alone, there were more librarians than in the bottom 20 states combined.

Map 1



[4] The state ratio of librarian FTE per school is the total school librarian FTE for a state divided by the total number of schools for the state. The state ratio of students per librarian FTE is the total number of students for a state divided by the total number of school librarian FTEs for the state. And, the state ratio of teacher FTE per librarian FTE is the total number of teacher FTEs for a state divided by the total number of librarian FTEs for the state.

Table 3. Number of School Librarian FTEs by State, 2018-19

a. In alphabetical order by state

State	Number of School Librarian FTEs, 2018-19
AK	133.60
AL	1,322.28
AR	967.49
AZ	426.17
CA	266.13
CO	546.26
CT	733.95
DC	114.75
DE	110.00
FL	1,986.85
GA	2,065.00
HI	134.50
IA	412.46
ID	46.71
IL	1,444.56
IN	575.38
KS	676.40
KY	1,030.74
LA	978.39
MA	621.15
MD	1,148.33
ME	194.30
MI	483.54
MN	512.66
MO	1,359.63
MS	762.03
MT	365.21
NC	2,043.05
ND	187.68
NE	534.36
NH	333.60
NJ	1,289.97
NM	209.92
NV	257.50
NY	2,553.65
OH	785.87
OK	900.89
OR	164.73
PA	1,599.38
RI	193.86
SC	1,095.60
SD	96.18
TN	1,532.00
TX	4,604.80
UT	227.71
VA	1,791.53
VT	197.24
WA	1,031.83
WI	929.04
WV	223.24
WY	77.35
U.S. Total	**42,279.45**

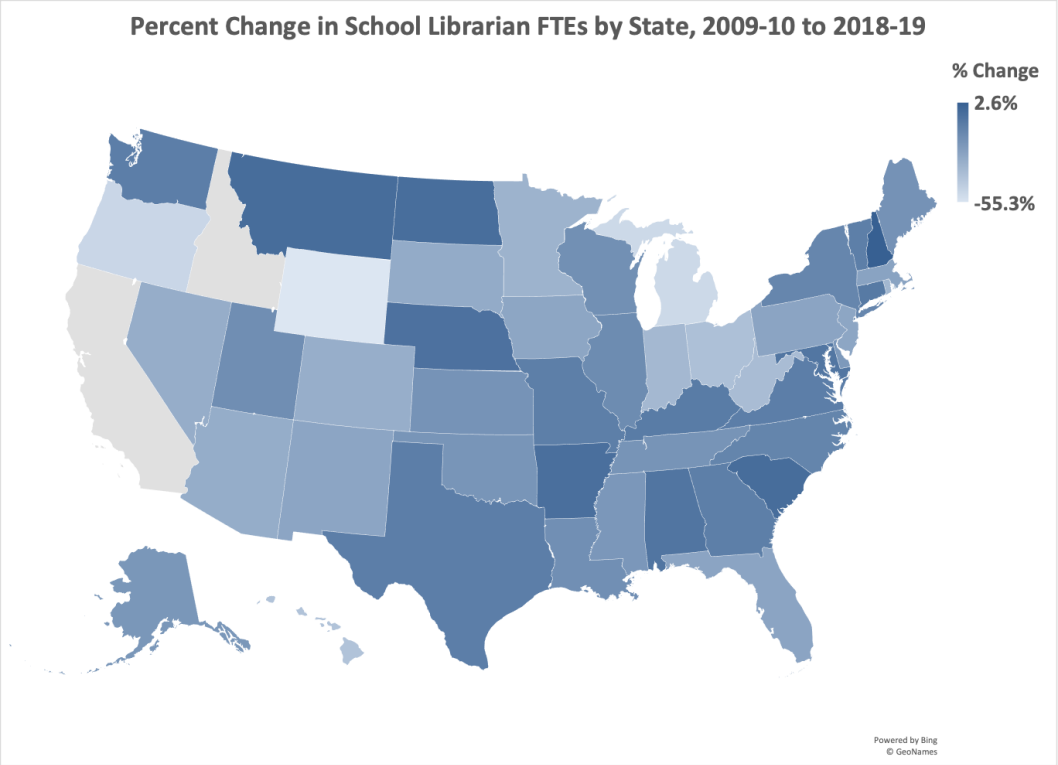
b. In descending order by number

Rank	State	Number of School Librarian FTEs, 2018-19
1	TX	4,604.80
2	NY	2,553.65
3	GA	2,065.00
4	NC	2,043.05
5	FL	1,986.85
6	VA	1,791.53
7	PA	1,599.38
8	TN	1,532.00
9	IL	1,444.56
10	MO	1,359.63
11	AL	1,322.28
12	NJ	1,289.97
13	MD	1,148.33
14	SC	1,095.60
15	WA	1,031.83
16	KY	1,030.74
17	LA	978.39
18	AR	967.49
19	WI	929.04
20	OK	900.89
21	OH	785.87
22	MS	762.03
23	CT	733.95
24	KS	676.40
25	MA	621.15
26	IN	575.38
27	CO	546.26
28	NE	534.36
29	MN	512.66
30	MI	483.54
31	AZ	426.17
32	IA	412.46
33	MT	365.21
34	NH	333.60
35	CA	266.13
36	NV	257.50
37	UT	227.71
38	WV	223.24
39	NM	209.92
40	VT	197.24
41	ME	194.30
42	RI	193.86
43	ND	187.68
44	OR	164.73
45	HI	134.50
46	AK	133.60
47	DC	114.75
48	DE	110.00
49	SD	96.18
50	WY	77.35
51	ID	46.71
	U.S. Total	**42,279.45**

Change in the number of school librarian FTEs in each state over time has also been highly variable. Notably, though, the patterns are different for the last decade, 2009-10 to 2018-19, and for the last half of that decade, 2015-16 to 2018-19.

Between 2009-10 and 2018-19, one out of five school librarian FTEs was lost nationwide.

Map 2



CA and ID are excluded from this map as outliers. See Tables 4a and 4b.

Between 2009-10 and 2018-19, one out of five school librarian FTEs was lost nationwide. At the state level, however, change in school librarian FTEs was quite different. (See Map 2. Note: darker shades indicate a gain or lighter losses, lighter shades indicate heavier losses.) During that interval, only one state, New Hampshire, did not lose school librarian FTEs; it had more school librarian FTEs in 2018-19 than 2009-10. (See Tables 4a and 4b.) Every other state experienced some degree of FTE loss.

Between 2009-10 and 2018-19, New Hampshire was the only state where the total number of school librarians did not decline.

While the state median reflected the national trend, 10 states stand out as experiencing extraordinarily high losses. California lost more than three out of four librarian FTEs (-76.7%), while Idaho lost more than two-thirds (-66.9%) and Wyoming lost more than half (-55.3%). Seven other states lost between a third and half of their librarian FTEs over the decade: Michigan (-49.5%), Oregon (-48.6%), Hawaii (-40.2%), Ohio (-38.9%), West Virginia (-37.3%), Indiana (-35.5%), and Rhode Island (-34.8%).

At the other extreme, 10 states lost fewer than 10% of their librarian FTEs during that period: Kentucky (-9.4%), Connecticut (-8.5%), Maryland (-6.8%), Alabama (-6.6%), D.C. (-5.9%), Nebraska (-4.9%), Arkansas (-3.9%), North Dakota (-3.3%), Montana, and South Carolina (both -2.9%).

As a result, students and teachers in some states were at far greater risk of losing their school librarians than their counterparts in other states. One of the most notable things about these two sets of states—those that experienced double-digit losses and those that experienced single-digit ones—is that both include states from all four U.S. Census regions.

Table 4. Percent Change in School Librarian FTEs by State, 2009-10 to 2018-19

a. In alphabetical order by state

State	Percent Change, 2009-10 to 2018-19
AK	-20.9%
AL	-6.6%
AR	-3.9%
AZ	-30.5%
CA	-76.7%
CO	-30.9%
CT	-8.5%
DC	-5.9%
DE	-22.0%
FL	-26.8%
GA	-10.6%
HI	-40.2%
IA	-27.6%
ID	-66.9%
IL	-16.4%
IN	-35.5%
KS	-19.5%
KY	-9.4%
LA	-17.9%
MA	-26.1%
MD	-6.8%
ME	-19.0%
MI	-49.5%
MN	-33.2%
MO	-10.7%
MS	-21.2%
MT	-2.9%
NC	-13.2%
ND	-3.3%
NE	-4.9%
NH	+2.6%
NJ	-27.5%
NM	-27.4%
NV	-30.9%
NY	-13.8%
OH	-38.9%
OK	-20.3%
OR	-48.6%
PA	-26.9%
RI	-34.8%
SC	-2.9%
SD	-29.8%
TN	-19.8%
TX	-10.4%
UT	-17.4%
VA	-10.5%
VT	-10.8%
WA	-10.5%
WI	-18.1%
WV	-37.3%
WY	-55.3%
State Average	**-22.7%**
State Median	**-19.8%**

b. In descending order by percent change

Rank	State	Percent Change, 2009-10 to 2018-19
1	NH	+2.6%
2	SC	-2.9%
2	MT	-2.9%
4	ND	-3.3%
5	AR	-3.9%
6	NE	-4.9%
7	DC	-5.9%
8	AL	-6.6%
9	MD	-6.8%
10	CT	-8.5%
11	KY	-9.4%
12	TX	-10.4%
13	VA	-10.5%
13	WA	-10.5%
15	GA	-10.6%
16	MO	-10.7%
17	VT	-10.8%
18	NC	-13.2%
19	NY	-13.8%
20	IL	-16.4%
21	UT	-17.4%
22	LA	-17.9%
23	WI	-18.1%
24	ME	-19.0%
25	KS	-19.5%
26	TN	-19.8%
27	OK	-20.3%
28	AK	-20.9%
29	MS	-21.2%
30	DE	-22.0%
31	MA	-26.1%
32	FL	-26.8%
33	PA	-26.9%
34	NM	-27.4%
35	NJ	-27.5%
36	IA	-27.6%
37	SD	-29.8%
38	AZ	-30.5%
39	NV	-30.9%
39	CO	-30.9%
41	MN	-33.2%
42	RI	-34.8%
43	IN	-35.5%
44	WV	-37.3%
45	OH	-38.9%
46	HI	-40.2%
47	OR	-48.6%
48	MI	-49.5%
49	WY	-55.3%
50	ID	-66.9%
51	CA	-76.7%
	State Average	**-22.7%**
	State Median	**-19.8%**

Between 2015-16 and 2018-19, the trend in school librarian employment improved somewhat. Librarian FTE losses slowed and became less severe in many states, while some states have actually experienced a recovery of FTEs.

Alabama was the standout state, experiencing a 38.2% gain in librarian FTEs over the past few years. (See Map 3.) The other double-digit gains were for D.C. (15.5%) and Alaska (13.2%). Seven other states that made single-digit gains were: Kansas, Michigan (both 7.3%), New York (6.1%), Virginia (5.8%), New Hampshire (4.1%), California (2.4%), and Arkansas (2.0%).

At the other extreme, 10 states reported FTE losses of 10% or more: Oklahoma (-10.1%), Tennessee (-11.2%), Illinois (-12.2%), Minnesota (-12.7%), Hawaii (-15.9%), Indiana (-16.9%), Louisiana (-18.0%), West Virginia (-20.4%), Nevada (-21.5%), and Wyoming (-28.6%). (See Tables 5a and 5b.)

Between 2015-16 and 2018-19, Alabama's number of school librarians increased by 38.2%.

Map 3

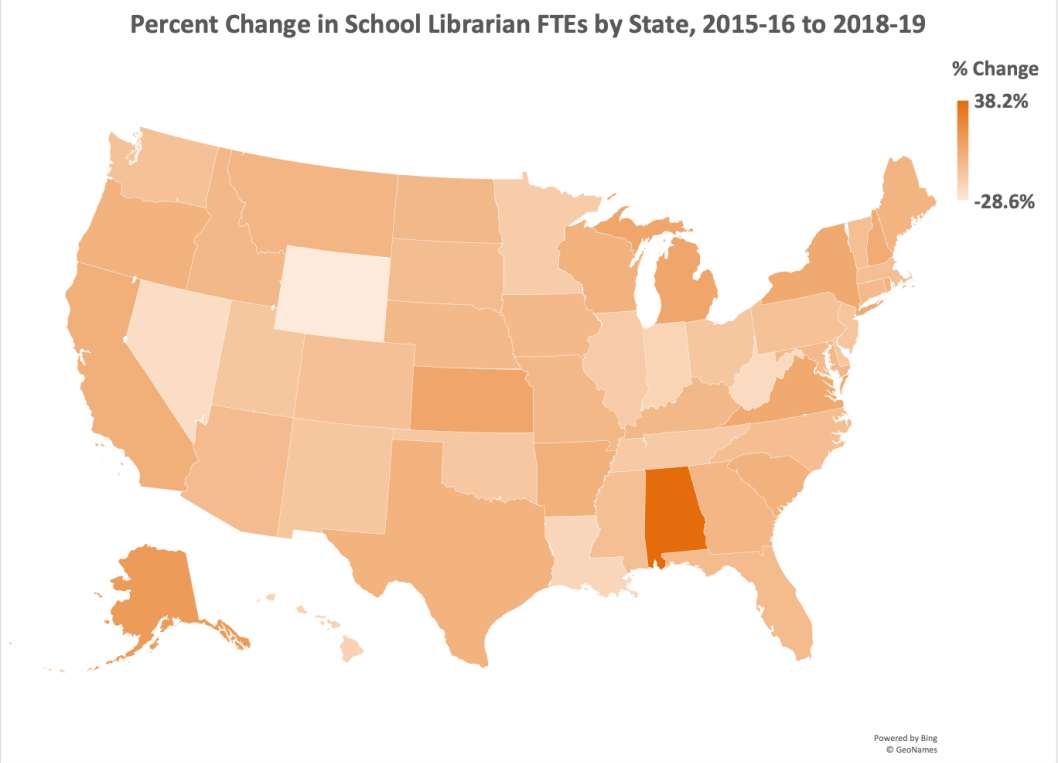


Table 5. Percent Change in School Librarian FTEs by State, 2015-16 to 2018-19

a. In alphabetical order by state

State	Percent Change, 2015-16 to 2018-19
AK	13.2%
AL	38.2%
AR	2.0%
AZ	-4.3%
CA	2.4%
CO	-6.3%
CT	-3.4%
DC	15.5%
DE	-9.8%
FL	-3.6%
GA	-1.0%
HI	-15.9%
IA	-2.4%
ID	-2.0%
IL	-12.2%
IN	-16.9%
KS	7.3%
KY	-2.1%
LA	-18.0%
MA	-5.7%
MD	-2.8%
ME	-0.3%
MI	7.3%
MN	-12.7%
MO	-2.3%
MS	-5.7%
MT	-0.7%
NC	-5.3%
ND	-2.0%
NE	-2.8%
NH	4.1%
NJ	-8.8%
NM	-9.7%
NV	-21.5%
NY	6.1%
OH	-9.6%
OK	-10.1%
OR	0.7%
PA	-7.0%
RI	0.3%
SC	0.8%
SD	-4.9%
TN	-11.2%
TX	0.6%
UT	-9.8%
VA	5.8%
VT	-5.8%
WA	-6.9%
WI	1.1%
WV	-20.4%
WY	-28.6%
State Average	**-3.7%**
State Median	**-3.4%**

b. In descending order by percent change

Rank	State	Percent Change, 2015-16 to 2018-19
1	AL	38.2%
2	DC	15.5%
3	AK	13.2%
4	KS	7.3%
4	MI	7.3%
6	NY	6.1%
7	VA	5.8%
8	NH	4.1%
9	CA	2.4%
10	AR	2.0%
11	WI	1.1%
12	SC	0.8%
13	OR	0.7%
14	TX	0.6%
15	RI	0.3%
15	ME	-0.3%
17	MT	-0.7%
18	GA	-1.0%
19	ID	-2.0%
19	ND	-2.0%
21	KY	-2.1%
22	MO	-2.3%
23	IA	-2.4%
24	NE	-2.8%
24	MD	-2.8%
26	CT	-3.4%
27	FL	-3.6%
28	AZ	-4.3%
29	SD	-4.9%
30	NC	-5.3%
31	MA	-5.7%
31	MS	-5.7%
33	VT	-5.8%
34	CO	-6.3%
35	WA	-6.9%
36	PA	-7.0%
37	NJ	-8.8%
38	OH	-9.6%
39	NM	-9.7%
40	UT	-9.8%
40	DE	-9.8%
42	OK	-10.1%
43	TN	-11.2%
44	IL	-12.2%
45	MN	-12.7%
46	HI	-15.9%
47	IN	-16.9%
48	LA	-18.0%
49	WV	-20.4%
50	NV	-21.5%
51	WY	-28.6%
	State Average	**-3.7%**
	State Median	**-3.4%**

State Ratio of Librarian FTE per School

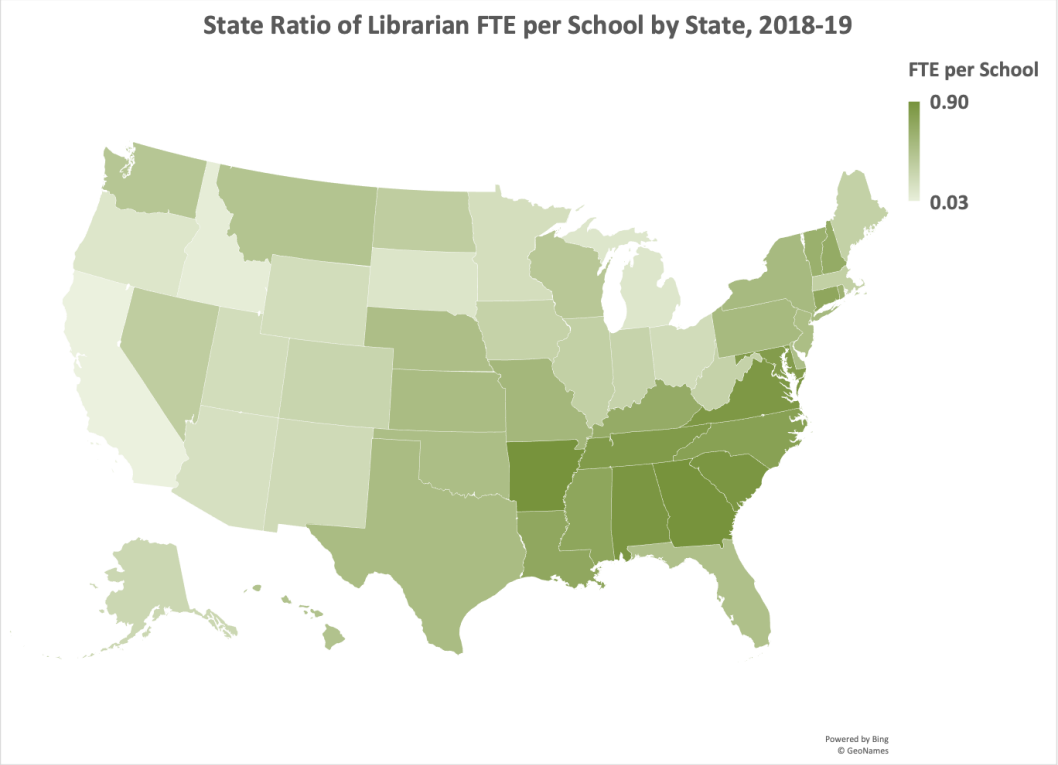
To what extent were there enough school librarians in each state in 2018-19 to provide a full-time librarian in every school, and how has that changed over time?

While the simple number of librarian FTEs for the nation and for states is interesting and meaningful within limits, a clearer perspective on the status of school librarians at the state level is gained by looking at their numbers relative to the number of schools.

School librarians were more likely to be found in schools in the South and the Northeast than in the Midwest and the West.

In displaying this ratio, Map 4 underscores the relatively strong presence of school librarians in schools in the South and, to a lesser extent, the Northeast.

Map 4



Of the 10 states with the highest state ratios of librarian FTE per school, 9 are in the South: Arkansas (.90 FTE per school), Georgia (.89), South Carolina, Alabama (both .87), Virginia (.85), Tennessee (.82), Maryland (.81), North Carolina (.77), and Mississippi (.72). Connecticut (also .72)—the only state in this group outside the South—rounds out the top 10 states on this ratio. (See Tables 6a and 6b.) There is also a regionality at the other extreme: of the 10 states with the lowest state ratios of librarian FTE per school, 9 are west of the Mississippi River: California (.03 FTE per school), Idaho (.06), Oregon (.13), South Dakota (.14), Arizona (.18), Wyoming, and Utah (both .21). Michigan (.13), Minnesota (.20), and Ohio (.22) round out the bottom 10 states on this ratio.

Table 6. State Ratio of Librarian FTE per School by State, 2018-19

a. In alphabetical order by state

State	State Ratio of Librarian FTE per School, 2018-19
AK	0.26
AL	0.87
AR	0.90
AZ	0.18
CA	0.03
CO	0.29
CT	0.72
DC	0.50
DE	0.49
FL	0.48
GA	0.89
HI	0.46
IA	0.31
ID	0.06
IL	0.33
IN	0.30
KS	0.51
KY	0.67
LA	0.71
MA	0.34
MD	0.81
ME	0.32
MI	0.13
MN	0.20
MO	0.56
MS	0.72
MT	0.44
NC	0.77
ND	0.36
NE	0.49
NH	0.68
NJ	0.50
NM	0.24
NV	0.36
NY	0.53
OH	0.22
OK	0.50
OR	0.13
PA	0.54
RI	0.61
SC	0.87
SD	0.14
TN	0.82
TX	0.51
UT	0.21
VA	0.85
VT	0.63
WA	0.42
WI	0.41
WV	0.31
WY	0.21
State Average	**0.47**
State Median	**0.48**

b. In descending order by state ratio

Rank	State	State Ratio of Librarian FTE per School, 2018-19
1	AR	0.90
2	GA	0.89
3	SC	0.87
3	AL	0.87
5	VA	0.85
6	TN	0.82
7	MD	0.81
8	NC	0.77
9	MS	0.72
9	CT	0.72
11	LA	0.71
12	NH	0.68
13	KY	0.67
14	VT	0.63
15	RI	0.61
16	MO	0.56
17	PA	0.54
18	NY	0.53
19	KS	0.51
19	TX	0.51
21	DC	0.50
21	NJ	0.50
23	OK	0.50
24	NE	0.49
24	DE	0.49
26	FL	0.48
27	HI	0.46
28	MT	0.44
29	WA	0.42
30	WI	0.41
31	ND	0.36
31	NV	0.36
33	MA	0.34
34	IL	0.33
35	ME	0.32
36	IA	0.31
36	WV	0.31
38	IN	0.30
39	CO	0.29
40	AK	0.26
41	NM	0.24
42	OH	0.22
43	UT	0.21
43	WY	0.21
45	MN	0.20
46	AZ	0.18
47	SD	0.14
48	OR	0.13
48	MI	0.13
50	ID	0.06
51	CA	0.03
	State Average	**0.47**
	State Median	**0.48**

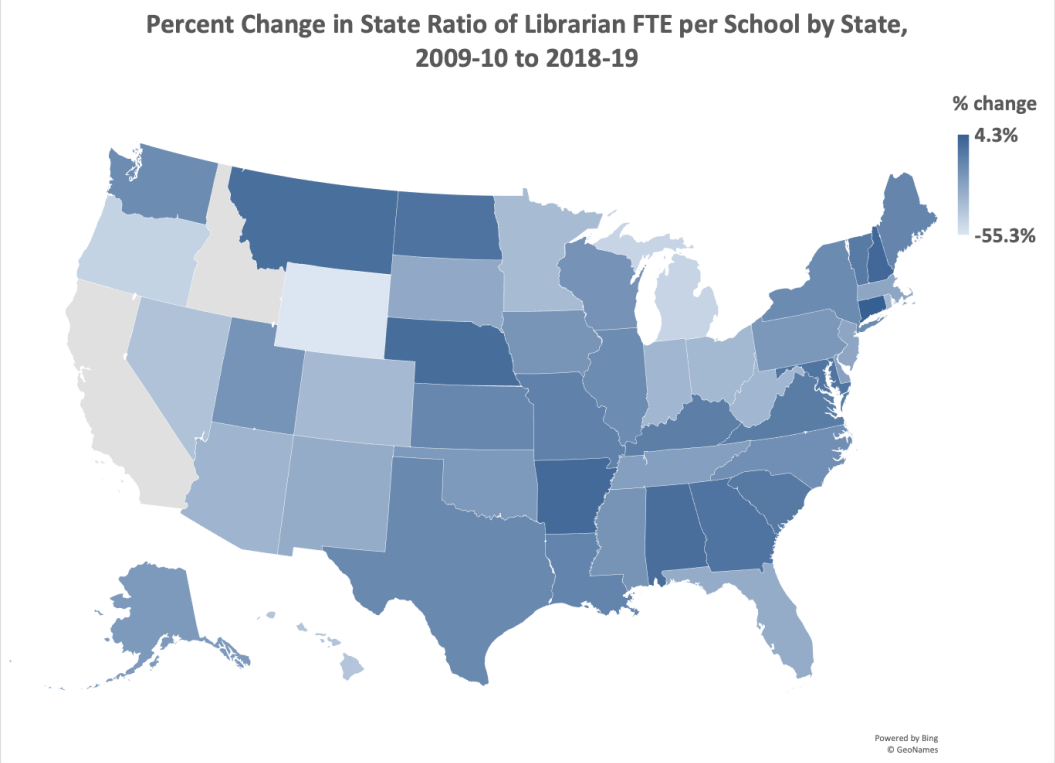
Percent change in the state ratio of librarian FTE per school is another strong indicator of the trend in librarian losses since 2009-10. As with the number of school librarians, region was also a factor. (See Map 5 and Tables 7a and 7b. Note: In Map 5, darker shades indicate gains or lighter losses, lighter shades indicate heavier losses.)

Between 2009-10 and 2018-19, only 2 states gained librarian FTE per school: Connecticut (4.3%) and New Hampshire (0.6%), both in New England. Of the dozen jurisdictions with the lowest losses on this ratio, 7 states plus D.C. are in the South: Arkansas (-0.3%), Alabama (-2.1%), D.C. (-3.9%), Georgia (-4.8%), Maryland (-4.9%), South Carolina (-7.4%), Virginia (-8.4%), and Kentucky (-8.9%). Other states with lower losses included Nebraska (-1.5%), Montana (-2.3%), North Dakota (-4.2%), and Vermont (-7.6%)—all but the last being states west of the Mississippi River.

At the other extreme, were 14 states that lost a third or more on the state ratio of librarian FTE per school. The 3 states that fared worst were California (-77.5%), Idaho (-67.0%), and Wyoming (-55.3%). Three states falling between 45 and 50 percent were Michigan (-47.5%), Oregon (-46.7%), and Hawaii (-40.8%). And 8 states falling by 33 percent or more were Nevada (-39.1%), Minnesota (-36.0%), Colorado (-35.3%), Ohio (-34.9%), Rhode Island (-34.6%), West Virginia, Indiana (both -34.0%) and Arizona (-33.3%).

Between 2009-10 and 2018-19, Connecticut and New Hampshire were the only two states to experience gains in the state ratio of librarian FTE per school.

Map 5



CA and ID are excluded from this map as outliers. See Tables 7a and 7b.

Table 7. Percent Change in State Ratio of Librarian FTE per School by State, 2009-10 to 2018-19

a. In alphabetical order by state

State	Percent change, 2009-10 to 2018-19
AK	-21.1%
AL	-2.1%
AR	-0.3%
AZ	-33.3%
CA	-77.5%
CO	-35.3%
CT	+4.3%
DC	-3.9%
DE	-24.8%
FL	-29.3%
GA	-4.8%
HI	-40.8%
IA	-19.3%
ID	-67.0%
IL	-15.2%
IN	-34.0%
KS	-13.0%
KY	-8.9%
LA	-11.6%
MA	-26.8%
MD	-4.9%
ME	-12.2%
MI	-47.5%
MN	-36.0%
MO	-10.7%
MS	-18.9%
MT	-2.3%
NC	-16.7%
ND	-4.2%
NE	-1.5%
NH	+0.6%
NJ	-27.0%
NM	-29.6%
NV	-39.1%
NY	-15.0%
OH	-34.9%
OK	-20.9%
OR	-46.7%
PA	-20.2%
RI	-34.6%
SC	-7.4%
SD	-28.1%
TN	-23.7%
TX	-14.0%
UT	-18.6%
VA	-8.4%
VT	-7.6%
WA	-15.2%
WI	-18.5%
WV	-34.0%
WY	-55.3%
State Average	**-21.9%**
State Median	**-18.9%**

b. In descending order by percent change

Rank	State	Percent change, 2009-10 to 2018-19
1	CT	+4.3%
2	NH	+0.6%
3	AR	-0.3%
4	NE	-1.5%
5	AL	-2.1%
6	MT	-2.3%
7	DC	-3.9%
8	ND	-4.2%
9	GA	-4.8%
10	MD	-4.9%
11	SC	-7.4%
12	VT	-7.6%
13	VA	-8.4%
14	KY	-8.9%
15	MO	-10.7%
16	LA	-11.6%
17	ME	-12.2%
18	KS	-13.0%
19	TX	-14.0%
20	NY	-15.0%
21	WA	-15.2%
21	IL	-15.2%
23	NC	-16.7%
24	WI	-18.5%
25	UT	-18.6%
26	MS	-18.9%
27	IA	-19.3%
28	PA	-20.2%
29	OK	-20.9%
30	AK	-21.1%
31	TN	-23.7%
32	DE	-24.8%
33	MA	-26.8%
34	NJ	-27.0%
35	SD	-28.1%
36	FL	-29.3%
37	NM	-29.6%
38	AZ	-33.3%
39	IN	-34.0%
39	WV	-34.0%
41	RI	-34.6%
42	OH	-34.9%
43	CO	-35.3%
44	MN	-36.0%
45	NV	-39.1%
46	HI	-40.8%
47	OR	-46.7%
48	MI	-47.5%
49	WY	-55.3%
50	ID	-67.0%
51	CA	-77.5%
	State Average	**-21.9%**
	State Median	**-18.9%**

Since 2015-16, the trends for the state ratio of librarian FTE per school have improved dramatically in some states. (See Map 6.)

Between 2015-16 and 2018-19, D.C. (15.5%) and 3 states—Alabama (36.5%), Connecticut (29.4%), and Alaska (13.5%)—experienced double-digit gains on this ratio. (See Tables 8a and 8b.) The high gains by Alabama and Connecticut are most conspicuous in Map 6. A further 8 states made single-digit gains on this ratio. They were Kansas (7.8%), Virginia, New York (both 6.7%), New Hampshire (3.2%), Arkansas (2.9%), Maine (1.7%), Wisconsin, and California (both 1.1%).

Since 2015-16, D.C. and 11 states have gained school librarians relative to their numbers of schools, while 12 other states have experienced double-digit losses on this ratio.

At the other extreme were 12 states that logged double-digit losses on this ratio. Two states fell by more than 25 percent: Nevada (-28.0%) and Wyoming (-27.3%). Six states dropped by between 15 and 20 percent: West Virginia (-17.8%), Louisiana (-17.6%), Indiana (-16.7%), Hawaii (-16.5%), Illinois (-15.6%), and Minnesota (-14.9%). The remaining 4 states with losses on this ratio between 10 and 12 percent were Utah (-12.1%), Tennessee (-11.3%), Delaware (-10.6%), and Oklahoma (-10.5%). Perhaps the most noteworthy regionality in these results is that none of these states is in the Northeast.

Map 6

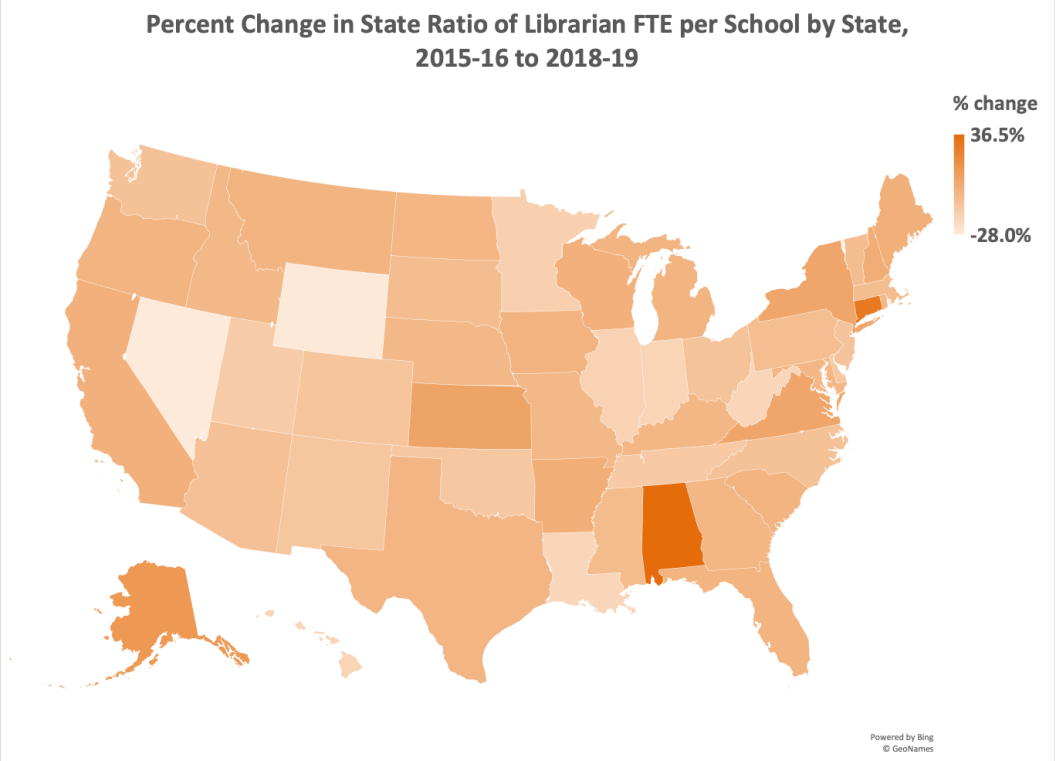


Table 8. Percent Change in State Ratio of Librarian FTEs per School by State, 2015-16 to 2018-19

a. In alphabetical order by state

State	Percent change, 2015-16 to 2018-19
AK	13.5%
AL	36.5%
AR	2.9%
AZ	-6.7%
CA	1.1%
CO	-8.9%
CT	29.4%
DC	15.5%
DE	-10.6%
FL	-0.3%
GA	-1.5%
HI	-16.5%
IA	0.0%
ID	-2.2%
IL	-15.6%
IN	-16.7%
KS	7.8%
KY	-1.6%
LA	-17.6%
MA	-5.2%
MD	-1.5%
ME	1.7%
MI	-0.2%
MN	-14.9%
MO	-2.4%
MS	-3.7%
MT	-0.7%
NC	-7.2%
ND	-1.3%
NE	-2.4%
NH	3.2%
NJ	-8.3%
NM	-9.5%
NV	-28.0%
NY	6.7%
OH	-8.2%
OK	-10.5%
OR	-0.4%
PA	-5.4%
RI	-1.9%
SC	-0.5%
SD	-4.8%
TN	-11.3%
TX	-1.1%
UT	-12.1%
VA	6.7%
VT	-5.2%
WA	-7.6%
WI	1.1%
WV	-17.8%
WY	-27.3%
State Average	**-3.4%**
State Median	**-2.4%**

b. In descending order by percent change

Rank	State	Percent change, 2015-16 to 2018-19
1	AL	36.5%
2	CT	29.4%
3	DC	15.5%
4	AK	13.5%
5	KS	7.8%
6	VA	6.7%
6	NY	6.7%
8	NH	3.2%
9	AR	2.9%
10	ME	1.7%
11	WI	1.1%
11	CA	1.1%
13	IA	0.0%
14	MI	-0.2%
15	FL	-0.3%
16	OR	-0.4%
17	SC	-0.5%
18	MT	-0.7%
19	TX	-1.1%
20	ND	-1.3%
21	MD	-1.5%
21	GA	-1.5%
23	KY	-1.6%
24	RI	-1.9%
25	ID	-2.2%
26	MO	-2.4%
26	NE	-2.4%
28	MS	-3.7%
29	SD	-4.8%
30	MA	-5.2%
30	VT	-5.2%
32	PA	-5.4%
33	AZ	-6.7%
34	NC	-7.2%
35	WA	-7.6%
36	OH	-8.2%
37	NJ	-8.3%
38	CO	-8.9%
39	NM	-9.5%
40	OK	-10.5%
41	DE	-10.6%
42	TN	-11.3%
43	UT	-12.1%
44	MN	-14.9%
45	IL	-15.6%
46	HI	-16.5%
47	IN	-16.7%
48	LA	-17.6%
49	WV	-17.8%
50	WY	-27.3%
51	NV	-28.0%
	State Average	**-3.4%**
	State Median	**-2.4%**

State Ratio of Students per School Librarian FTE

If each state's students had had equal access to its school librarians, how many students would a librarian in each state have been responsible for serving in 2018-19?

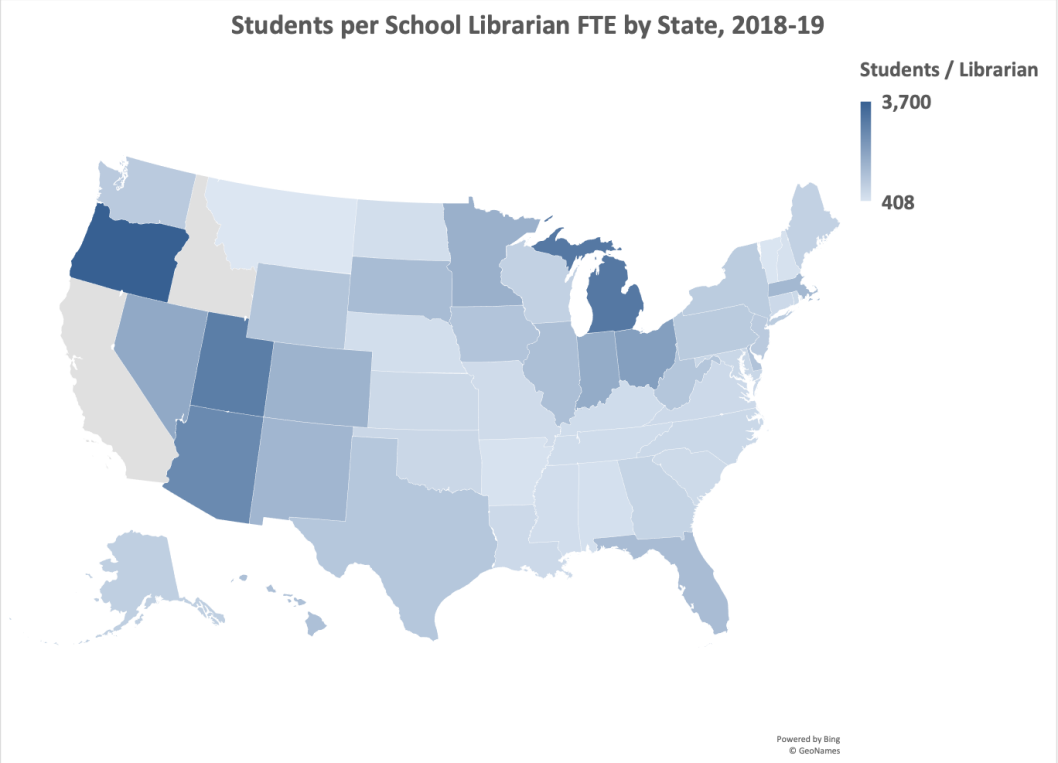
Like its national counterpart, the state ratio of students per one full-time equivalent (FTE) school librarian is a measure of the relative capacity of a state's school librarians to reach and teach students. Due to the skewed distribution of the nation's school librarians among the states, there were some extraordinary inequities between states on this measure.

Because school librarians were so unequally distributed across states, the number of students per librarian also varied dramatically from state to state.

Due to the profound lack of school librarians in California, it had 23,570 students per librarian FTE in 2018-19. Of course, few, if any, individual librarians in the state were responsible for serving that many students. That off-the-chart number is more a function of the total absence of librarians in so many districts throughout the state. Idaho had a slightly less extreme value on this ratio at 6,648 students per librarian. Due to the extremity of these values, those two states are excluded from Map 7 (which otherwise would have "washed out" the remaining states).

Ten additional states with the most students per librarian FTE were Oregon (3,700), Michigan (3,111), Utah (2,973), Arizona (2,679), Ohio (2,158), Nevada (1,913), Indiana (1,835), Minnesota (1,735), and Colorado (1,669). These larger numbers of students per librarian—from California to Colorado—make it extra difficult for school librarians to be "teacher librarians." In reality, these problematic state ratios suggesting the large numbers of students each librarian must try to serve only hint at the true underlying reality—that these were states in which there were many "have" and "have not" districts where librarians are concerned. That means some students had the benefit of a librarian while others did not. (See Tables 9a and 9b.)

Map 7



Note: CA and ID are outliers. See Table 9.

At the other extreme are states with a low ratio of students per librarian. Almost certainly, these were states where more districts and schools had librarians as well as a higher librarian FTE per school, increasing the potential that librarians could reach more students as teachers of information literacy and inquiry-based learning.

8 of the 15 states with the lowest (best) ratios of students per librarian were in the South.

Two states—at opposite ends of the continent—had fewer than 500 students per librarian: Montana (408) and Vermont (441). Three other states in the Northeast had fewer than 750 students per librarian: New Hampshire (535), Connecticut (718), and Rhode Island (740). Four states in the Midwest had a similar ratio of students per librarian: North Dakota (607), Nebraska (611), Missouri (672), and Kansas (736). Most conspicuously, though, eight states in the South had fewer than 750 students per librarian: Arkansas (512), Alabama (559), Mississippi (618), Kentucky, Tennessee (both 658), South Carolina (713), Virginia (720), and Louisiana (728). Doubtless, the strong representation of Southern states on this ratio can be traced to their larger numbers of librarians and, consequently, their higher ratios of librarian FTEs to schools.

Table 9. Students per School Librarian FTE by State, 2018-19

a. In alphabetical order by state

State	Students per School Librarian FTE, 2018-19
AK	980
AL	559
AR	512
AZ	2,679
CA	23,570
CO	1,669
CT	718
DC	771
DE	1,258
FL	1,433
GA	856
HI	1,348
IA	1,248
ID	6,648
IL	1,372
IN	1,835
KS	736
KY	658
LA	728
MA	1,549
MD	781
ME	929
MI	3,111
MN	1,735
MO	672
MS	618
MT	408
NC	760
ND	607
NE	611
NH	535
NJ	1,085
NM	1,589
NV	1,913
NY	1,058
OH	2,158
OK	776
OR	3,700
PA	1,082
RI	740
SC	713
SD	1,445
TN	658
TX	1,180
UT	2,973
VA	720
VT	441
WA	1,089
WI	925
WV	1,200
WY	1,219
State Average	**1,736**
State Median	**1,058**

b. In descending order by students per librarian

Rank	State	Students per School Librarian FTE, 2018-19
1	MT	408
2	VT	441
3	AR	512
4	NH	535
5	AL	559
6	ND	607
7	NE	611
8	MS	618
9	KY	658
9	TN	658
11	MO	672
12	SC	713
13	CT	718
14	VA	720
15	LA	728
16	KS	736
17	RI	740
18	NC	760
19	DC	771
20	OK	776
21	MD	781
22	GA	856
23	WI	925
24	ME	929
25	AK	980
26	NY	1,058
27	PA	1,082
28	NJ	1,085
29	WA	1,089
30	TX	1,180
31	WV	1,200
32	WY	1,219
33	IA	1,248
34	DE	1,258
35	HI	1,348
36	IL	1,372
37	FL	1,433
38	SD	1,445
39	MA	1,549
40	NM	1,589
41	CO	1,669
42	MN	1,735
43	IN	1,835
44	NV	1,913
45	OH	2,158
46	AZ	2,679
47	UT	2,973
48	MI	3,111
49	OR	3,700
50	ID	6,648
51	CA	23,570
	State Average	**1,736**
	State Median	**1,058**

State Ratio of Teachers per School Librarian FTE

If each state's teachers had had equal access to its school librarians, how many teachers would a librarian in each state have been responsible for serving in 2018-19?

Like the state ratio of students per full-time equivalent (FTE) school librarian, the state ratio of teachers per librarian was driven largely by the number of librarians in the state and the ratio of librarian FTE per school.

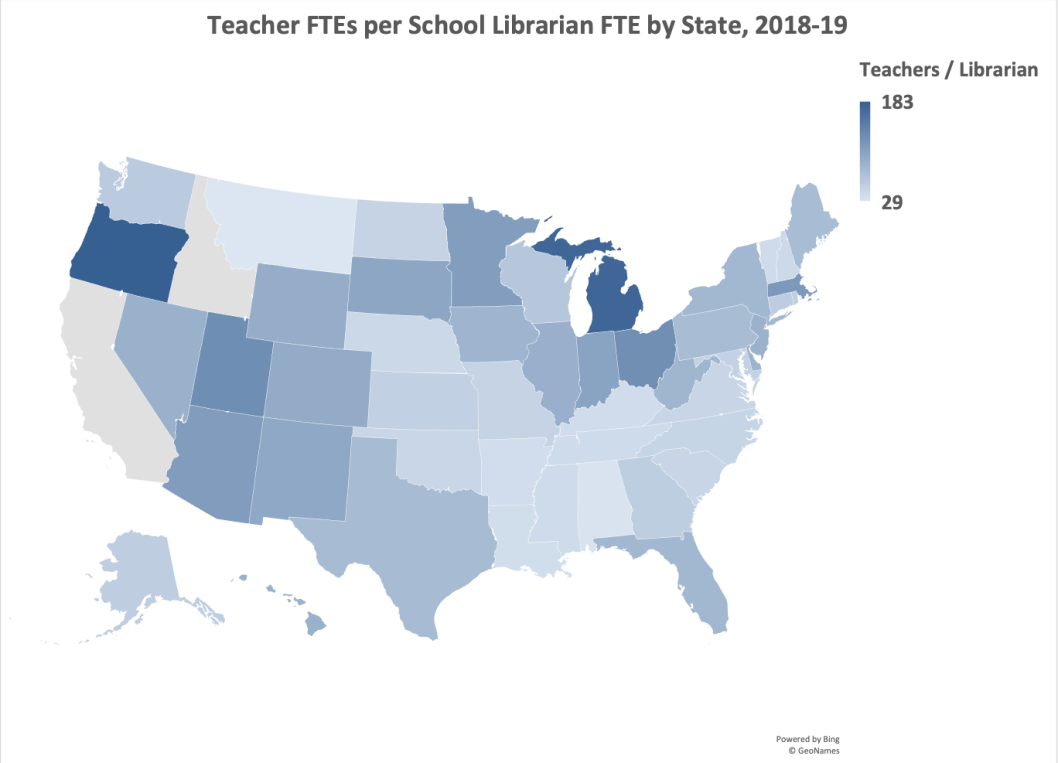
In Map 8, lighter shades indicate lower—better—ratios of teachers per librarian FTE, while darker shades indicate higher—less desirable—ratios. (This map is indistinguishable from the previous one.)

Three states had the best teacher/librarian ratios with fewer than 40 teachers per librarian FTE: Montana (29 teachers per librarian), Alabama (32), and Arkansas (39). Eleven additional states had better ratios with between 40 to 50 teachers per librarian FTE. Eight of the 13 were in the South: Louisiana (40 teachers per librarian), Kentucky (41), Tennessee, Mississippi, (both 42), Oklahoma (47), South Carolina (48), Virginia, and North Carolina (both 49). Three additional states with similar ratios were Vermont (42), New Hampshire (44), and Nebraska (45). When numbers of teachers per librarian are this low, it indicates that a state has more librarians, a higher ratio of librarian FTE per school, or both. This means it is more likely that school librarians have time to collaborate effectively with more teachers than if their state was at the other extreme on this ratio.

9 of the 13 states with the best ratios of teachers per librarian were in the South.

As on the student ratio, California and Idaho were outliers with 1,021 and 358 teachers per librarian FTE. (Excluded from Map 8.) Ten additional states had between 100 and 200 teachers per librarian: Oregon (183 teachers per librarian), Michigan (176), Utah (131), Ohio (129), Massachusetts (119), Arizona (114), Minnesota (113), Indiana (106), South Dakota (103), and New Mexico (101). Such large numbers of teachers per librarian make it extra challenging for librarians to collaborate effectively with all teachers, even if they have supportive administrators and teachers and flexibly scheduled access to libraries. (See Tables 10a and 10b.)

Map 8



Note: CA and ID are outliers. See Table 10.

Table 10. Teacher FTEs per School Librarian FTE by State (FTE), 2018-19

a. In alphabetical order by state

State	Teacher FTEs per School Librarian FTE, 2018-19
AK	57
AL	32
AR	39
AZ	114
CA	1,021
CO	97
CT	58
DC	64
DE	87
FL	83
GA	57
HI	90
IA	86
ID	358
IL	92
IN	106
KS	54
KY	41
LA	40
MA	119
MD	53
ME	77
MI	176
MN	113
MO	50
MS	42
MT	29
NC	49
ND	50
NE	45
NH	44
NJ	90
NM	101
NV	90
NY	83
OH	129
OK	47
OR	183
PA	77
RI	55
SC	48
SD	103
TN	42
TX	78
UT	131
VA	49
VT	42
WA	60
WI	64
WV	85
WY	95
State Average	**100**
State Median	**77**

b. In descending order by teachers per librarian

Rank	State	Teacher FTEs per School Librarian FTE, 2018-19
1	MT	29
2	AL	32
3	AR	39
4	LA	40
5	KY	41
6	TN	42
6	MS	42
6	VT	42
9	NH	44
10	NE	45
11	OK	47
12	SC	48
13	VA	49
13	NC	49
15	MO	50
15	ND	50
17	MD	53
18	KS	54
19	RI	55
20	GA	57
20	AK	57
22	CT	58
23	WA	60
24	DC	64
24	WI	64
26	PA	77
26	ME	77
28	TX	78
29	FL	83
29	NY	83
31	WV	85
32	IA	86
33	DE	87
34	NJ	90
34	HI	90
34	NV	90
37	IL	92
38	WY	95
39	CO	97
40	NM	101
41	SD	103
42	IN	106
43	MN	113
44	AZ	114
45	MA	119
46	OH	129
47	UT	131
48	MI	176
49	OR	183
50	ID	358
51	CA	1,021
	State Average	**100**
	State Median	**77**

State Context Predictors of Statewide Ratio of Librarians to Schools & Change from 2015-16 to 2018-19

The variable status of school librarians from state to state and region to region raises questions about what explains those differences. Rather than mere geography, it seemed likely that such differences were explained by the very different context of the profession from state to state.

In late 2020, the SLIDE project surveyed its state intermediaries—representatives of state library associations and agencies committed to supporting this research—about policies, practices, and conditions in their states that provide the context for school librarian employment (Kachel & Lance, 2021).[5] Issues surveyed included:

- State standards and guidelines,
- State certification requirements,
- Legal mandates for school library staffing,
- State government employee assigned to work with school libraries,
- State data about school librarian employment,
- Direct state funding for school libraries,
- State-subsidized subscriptions to, or discounts for, licensed databases, and
- Higher education institutions that prepare school librarians.

Of these factors that shape the context of school librarianship in each state, which ones were predictors of the state ratio of librarian FTE per school and how it has changed over time?

An analysis of the NCES state data file combined with those survey data identified two factors that are correlated positively and significantly with school librarian employment. School librarian employment patterns and trends are related to the state ratio of librarian FTE per school and change over time in the number of school librarian FTEs in each state.

State Mandate for School Librarians

Does it make a difference in school librarian employment if a state requires that schools have them?

Based on the 2020 study of state mandates, states with enforced legal mandates that schools employ some level of school librarian staffing averaged 0.61 librarian FTE per school in 2018-19. States that had such mandates, but did not enforce them, averaged 0.50 librarian FTE per school. And states that reported not having such mandates averaged 0.38 librarian FTE per school. Clearly, legal mandates for school librarians—and their enforcement—help to explain varying levels of school librarian staffing from state to state. (See Chart 6.)

School librarians were more prevalent in states that mandate their employment than in states that do not mandate them. And, in states with mandates, school librarians were more prevalent where those mandates are enforced than where they are not enforced. Librarian losses over time were also lowest in states with mandates and highest in states without mandates.

School librarian mandates have an equally pronounced association with change in school librarian staffing from state to state. (See Chart 7.) For this analysis, two time frames were assessed: 2009-10 to 2018-19 and 2015-16 to 2018-19. For states with enforced mandates, average loss over the decade was -9.0%. During the latter part of the decade, those states actually averaged 3.1% gains in school librarian FTEs. For states with unenforced mandates, librarian losses over the decade averaged -22.6%, and, since 2015-16, -2.5%. For states without mandates, rates of school librarian losses were greatest of all: -29.0% from 2009-10 to 2018-19 and -7.6% from 2015-16 to 2018-19. Enforced mandates contribute positively and significantly to the maintenance of school librarian staffing levels over time (Kachel, 2021).

[5] Be aware that many of these state context conditions change constantly.

Chart 6

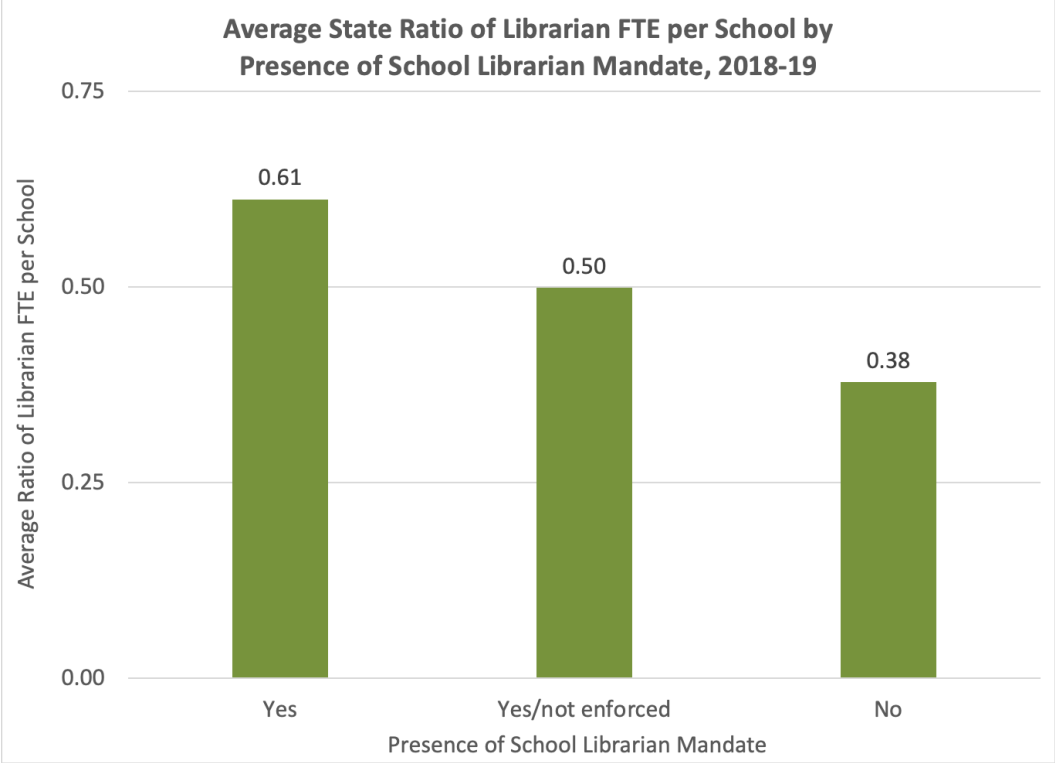
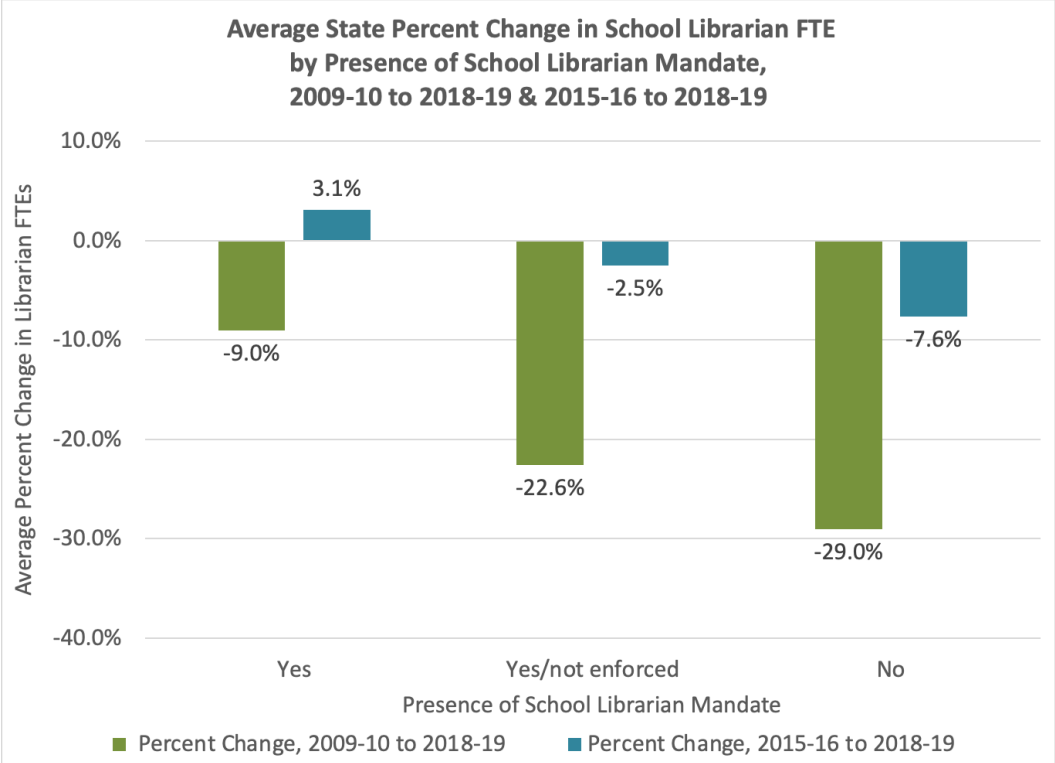


Chart 7



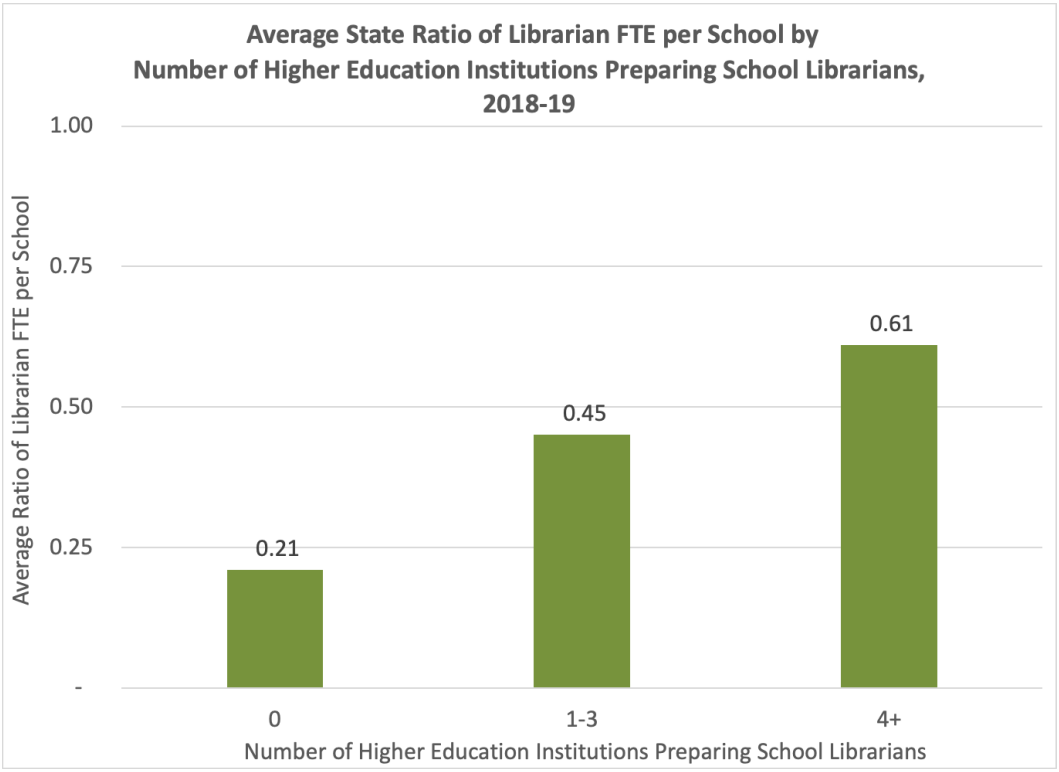
Higher Education Institutions Preparing School Librarians

Higher education institutions that prepare school librarians probably draw most of their students from their own states. Certification requirements for school librarians and their approved preparatory programs vary from state to state (Kachel & Lance, 2021). For this reason, among others, it is not surprising that the analysis of NCES state data with SLIDE's 2020 state survey data revealed that a state's number of higher education institutions preparing school librarians correlated positively and significantly with school librarian employment. (See Chart 8.)

Does a state's number of higher education institutions preparing school librarians help to predict the level of school librarian employment or its change over time?

Based on the 2020 survey, states with 4 or more higher education institutions preparing school librarians averaged 0.61 librarian FTE per school in 2018-19. States with 1 to 3 such institutions averaged 0.45 librarian FTE per school, and states with no such institutions averaged 0.21 librarian FTE per school.

Chart 8

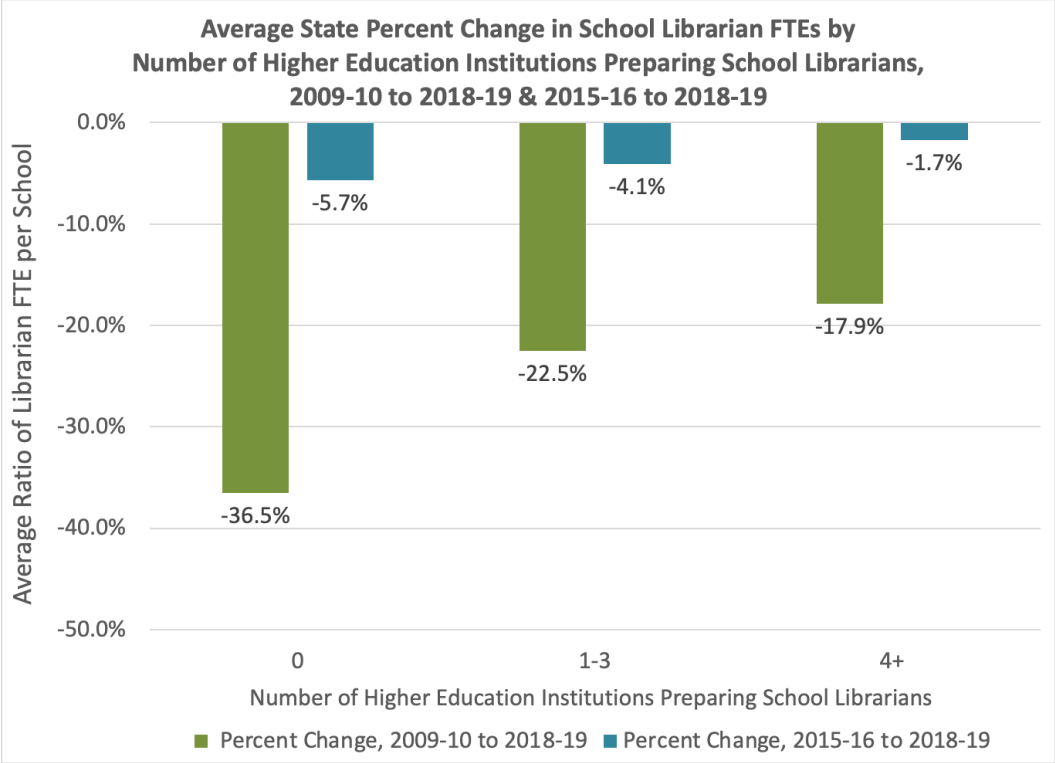


School librarians were more prevalent and less likely to experience job loss in states with more institutions of higher education preparing school librarians.

Like school librarian mandates, the number of higher education institutions preparing school librarians is also a predictor of change in librarian employment over time, both from 2009-10 to 2018-19 and from 2015-16 to 2018-19. (See Chart 9.) States with 4 or more such institutions averaged librarian losses of -17.9% over the decade and -1.7% since 2015-16, while states with 1 to 3 such institutions average losses of -22.5% over the decade and -4.1% since 2015-16. States with no higher education institutions preparing school librarians averaged librarian losses of -36.5% over the decade and -5.7% since 2015-16.

The relationships between school librarian staffing levels and their change over time and the number of higher education institutions preparing school librarians confirm that potential school librarians were more likely to be employed—and to remain employed over time—if there were more institutions to choose from for both initial preparation and ongoing professional development opportunities.

Chart 9



District Perspective

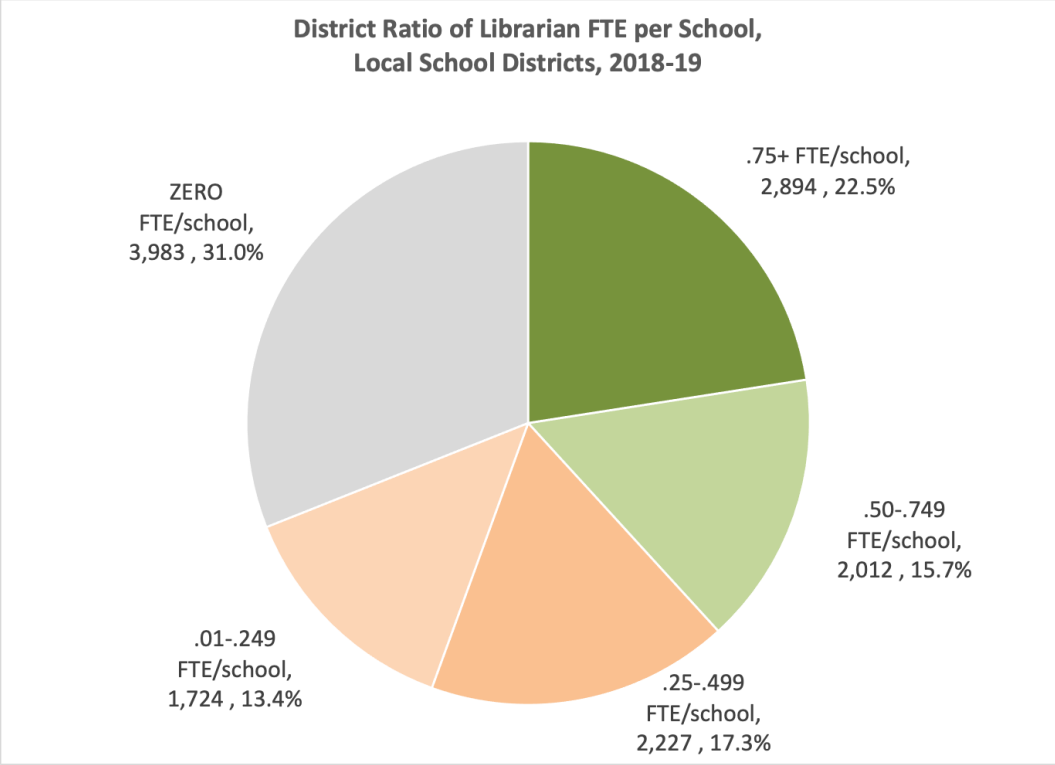
State and national figures belie enormous discrepancies in school librarian employment at the local district level. Access to a school librarian is impacted strongly by several district characteristics—enrollment, locale, and per pupil spending—and student demographics—poverty, race/ethnicity, and language status. This is evident when one examines variations in district figures for three ratios: librarian full-time equivalent (FTE) per school, students per librarian FTE, and teacher FTE per librarian FTE.[6] In addition to zeroing in on how much these figures can vary from district to district, this perspective also profiles districts that have been most stable over time (either having or not having librarians from 2015-16 through 2018-19). It also examines how school librarian employment patterns and trends differ between districts that had signed the Future Ready Schools pledge and those that had not. Finally, this perspective describes what is happening in two circumstances where school librarians are absent: where school librarians have been replaced by library support staff and where school librarians have been present, and absent, for four or more years.

District Ratio of Librarian FTE per School

In 2018-19, how many districts had school librarians and, if they did, at what FTE levels per school?

In the absence of school data on librarian employment, the best way to address this issue is by reporting the district ratio of librarian FTE per school. (See Chart 10.) Five levels of librarian FTE per school were created for this analysis: .75 or more FTE per school (i.e., almost a full-time librarian in every school or a full-time librarian in most schools), .50 to .749 FTE (at least half-time, but less than three-quarter time), .25 to .499 FTE (at least

Chart 10



[6] The district ratio of librarian FTE per school is a district's total number of librarian FTEs divided by the district's total number of schools minus its number of charter schools. (Because 9 out of 10 charter schools do not have librarians, a separate analysis of them appears later in this report.) The district ratio of students per librarian FTE is a district's total number of students divided by the district's total number of librarian FTEs. The district ratio of teacher FTEs per librarian FTE is a district's total number of teacher FTEs divided by the district's total number of librarian FTEs.

one-quarter time, but less than half-time), .01 to .249 FTE (less than one-quarter time, but greater than zero), and zero FTE per school.

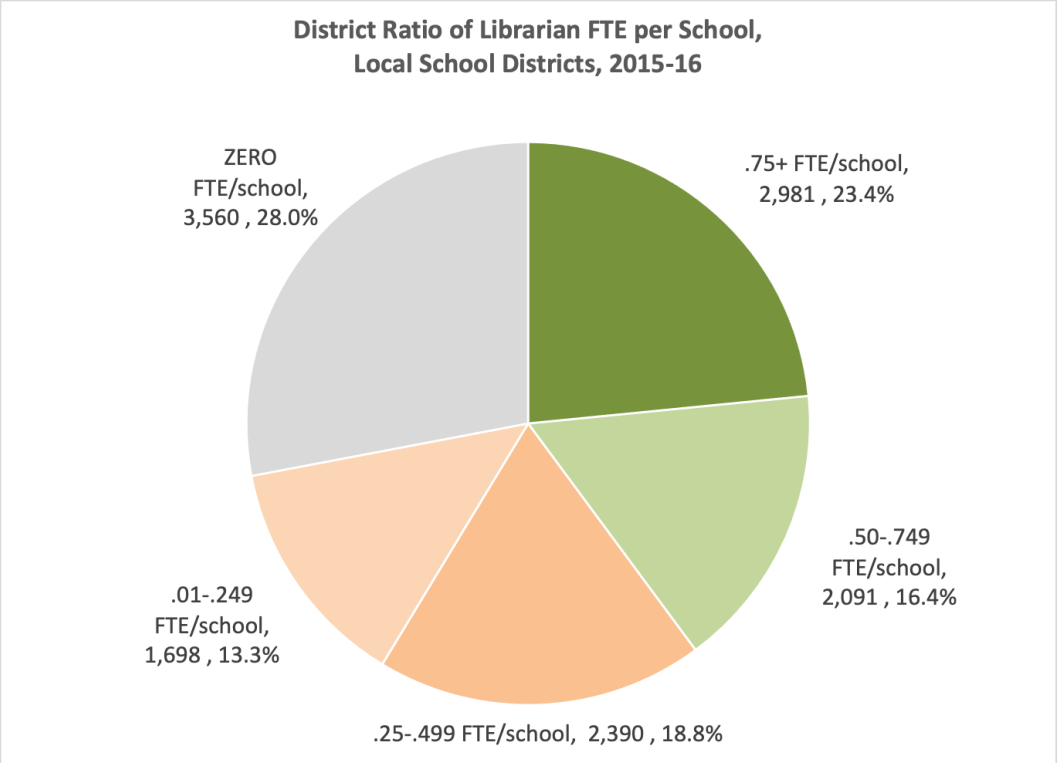
In 2018-19, school librarians were present at some level in 8,857 districts (69.0%). Another 3,983 (31.0%) reported having no librarians. (Notably, this excludes the small number of districts which did not report about librarian FTE at all.) More than 1 out of 5 (22.5%) had enough librarians to have .75 FTE or higher in every school. More than 1 out of 6 (15.7%) had enough librarians to have .50 to .749 FTE in every school. Almost 1 out of 6 (17.3%) had enough librarians to have .25 to .499 FTE in every school. More than 1 out of 7 had enough librarians to have .01 to .249 librarians in every school. Three out of 10 districts reported no librarians. These figures illustrate the extent of inequality of access to librarians among districts when compared to the national ratio of .43 FTE per school.

In 2018-19, 31% of districts had no librarians, and only 23% reported enough for full-time librarians in most schools. Since 2015-16, numbers and percentages of districts with no librarians have increased.

At the district level, how have school librarian employment patterns and trends changed over time?

The best baseline for district comparisons over time is 2015-16, the year for which the most complete data were available prior to 2018-19. (See Chart 11.) As at state and national levels, from a district perspective, school librarian employment was stronger in 2015-16. More districts reported employing school librarians at the 3 highest FTE levels, and fewer districts reported having no school librarians.

Chart 11



How did these district patterns vary from state to state?

Table 11 reports librarian FTE per school levels by district for each state and D.C. As a cursory scanning of this table makes evident, FTE per school levels—including districts with no school librarians—varied wildly among the states.

Table 11. District Ratio of Librarian FTE per School by FTE Level and State, 2018-19

State	.75 FTE/school	.50-.749 FTE/school	.25-.499 FTE/school	.01-.249 FTE/school	ZERO FTE/school	Total
AK	3.8%	3.8%	7.7%	7.7%	76.9%	100.0%
AL	79.6%	20.4%	0.0%	0.0%	0.0%	100.0%
AR	79.4%	20.2%	0.0%	0.0%	.4%	100.0%
AZ	5.6%	4.2%	9.3%	12.1%	68.7%	100.0%
CA	0.6%	0.6%	1.2%	4.0%	93.6%	100.0%
CO	3.9%	8.4%	17.4%	14.6%	55.6%	100.0%
CT	58.0%	13.0%	14.8%	3.0%	11.2%	100.0%
DC	100.0%	0.0%	0.0%	0.0%	0.0%	100.0%
DE	21.1%	26.3%	15.8%	21.1%	15.8%	100.0%
FL	25.4%	25.4%	29.9%	10.4%	9.0%	100.0%
GA	73.3%	15.6%	10.6%	0.0%	.6%	100.0%
HI	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
IA	5.5%	7.3%	33.3%	51.5%	2.4%	100.0%
ID	1.7%	1.7%	5.2%	24.3%	67.0%	100.0%
IL	38.3%	19.9%	24.7%	16.2%	.9%	100.0%
IN	9.9%	12.6%	26.6%	22.5%	28.3%	100.0%
KS	14.3%	21.0%	18.5%	7.7%	38.5%	100.0%
KY	46.2%	31.2%	16.8%	4.0%	1.7%	100.0%
LA	50.7%	12.7%	8.5%	12.7%	15.5%	100.0%
MA	26.9%	12.3%	17.3%	23.8%	19.8%	100.0%
MD	66.7%	16.7%	8.3%	4.2%	4.2%	100.0%
ME	11.0%	15.7%	18.8%	24.1%	30.4%	100.0%
MI	2.2%	3.5%	8.2%	17.7%	68.3%	100.0%
MN	2.4%	10.6%	18.2%	12.8%	55.9%	100.0%
MO	21.1%	25.7%	26.9%	15.1%	11.2%	100.0%
MS	43.3%	33.3%	21.3%	1.4%	0.7%	100.0%
MT	18.5%	11.3%	17.5%	23.0%	29.8%	100.0%
NC	60.8%	20.8%	10.0%	4.2%	4.2%	100.0%
ND	4.7%	22.4%	31.2%	22.9%	18.8%	100.0%
NE	4.9%	32.8%	48.0%	13.9%	0.4%	100.0%
NH	52.1%	23.0%	8.5%	4.8%	11.5%	100.0%
NJ	34.7%	24.1%	12.4%	8.0%	20.8%	100.0%
NM	2.3%	5.7%	8.0%	23.9%	60.2%	100.0%
NV	0.0%	11.8%	11.8%	47.1%	29.4%	100.0%
NY	49.3%	23.8%	13.8%	5.4%	7.7%	100.0%
OH	5.5%	11.0%	24.5%	17.5%	41.5%	100.0%
OK	13.1%	19.7%	25.6%	17.8%	23.8%	100.0%

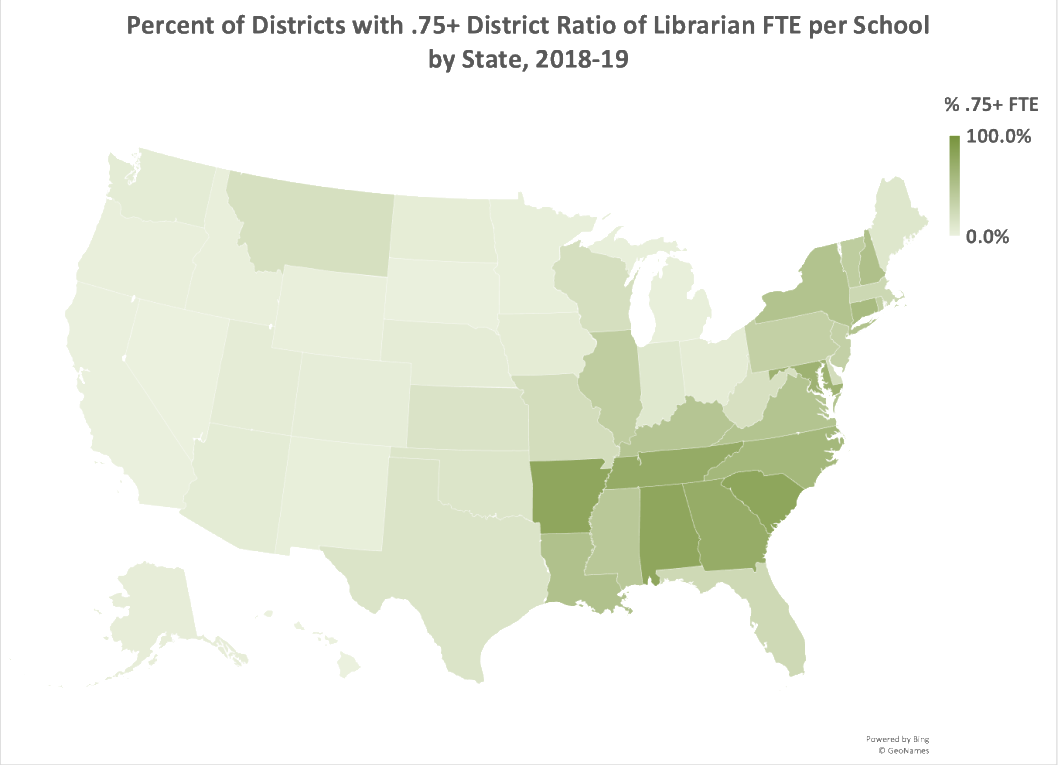
Table 11. District Ratio of Librarian FTE per School by FTE Level and State, 2018-19—continued

State	.75 FTE/school	.50-.749 FTE/school	.25-.499 FTE/school	.01-.249 FTE/school	ZERO FTE/school	Total
OR	1.7%	2.8%	8.0%	17.6%	69.9%	100.0%
PA	34.9%	31.9%	21.8%	6.2%	5.2%	100.0%
RI	36.1%	47.2%	13.9%	0.0%	2.8%	100.0%
SC	80.2%	16.0%	2.5%	0.0%	1.2%	100.0%
SD	0.7%	2.0%	20.1%	17.4%	59.7%	100.0%
TN	74.3%	16.0%	5.6%	2.1%	2.1%	100.0%
TX	13.4%	11.3%	18.1%	14.4%	42.9%	100.0%
UT	4.9%	2.4%	19.5%	39.0%	34.1%	100.0%
VA	48.1%	32.1%	13.7%	6.1%	0.0%	100.0%
VT	38.8%	23.1%	11.6%	6.1%	20.4%	100.0%
WA	5.7%	11.8%	15.2%	12.8%	54.5%	100.0%
WI	19.4%	20.3%	34.7%	16.5%	9.1%	100.0%
WV	17.6%	14.7%	29.4%	38.2%	0.0%	100.0%
WY	2.1%	12.5%	22.9%	33.3%	29.2%	100.0%
U.S.	22.5%	15.7%	17.3%	13.4%	31.0%	100.0%

In which states did more districts provide the highest level of librarian FTE per school in 2018-19?

Districts with a librarian FTE per school of .75 or more were far more likely to be in the "deep" South, the Mid-Atlantic, and the Northeast. Such districts were far less likely to be in the plains of the Midwest and the Mountain and Pacific West. (See Map 9.) Notably, because this is an FTE ratio to schools, that pattern is not merely a reflection of population concentration in the former regions. State factors identified earlier as predictors of school librarian employment—state mandates and numbers of higher education institutions preparing school librarians—help to explain why districts in certain states in particular regions were more likely to have a substantial librarian FTE in most schools.

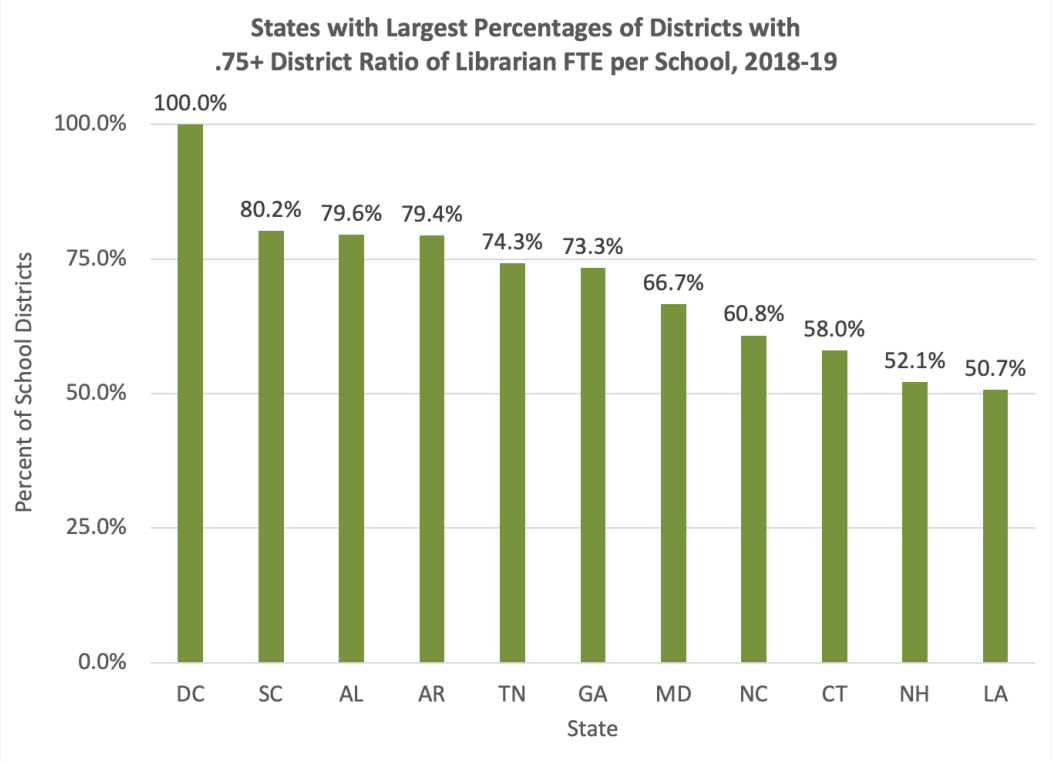
Map 9



Districts that come closest to having full-time librarians in their schools were more prevalent in the South and the Northeast than in the Midwest and the West.

Besides Washington, DC (a single school district), a majority of districts in 10 states had this highest level of librarian FTE per school. About four out of five districts have such librarian staffing in South Carolina (80.2%), Alabama (79.6%), and Arkansas (79.4%). About three out of four districts had this level of librarian staffing per school in Tennessee (74.3%) and Georgia (73.3%). Two-thirds (66.7%) of Maryland districts have such staffing. About three out of five districts had .75+ librarian FTE per school in North Carolina (60.8%) and Connecticut (58.0%). And just over half of districts had this highest staffing level in New Hampshire (52.1%) and Louisiana (50.7%). It is no coincidence that eight of these 10 states are in the South, where states are more likely to mandate having librarians in schools and to provide more institutions where aspiring school librarians can attend graduate programs. (See Chart 12.)

Chart 12



In which states were there the most districts reporting no school librarians in 2018-19?

States with the most districts reporting no school librarians tend to be concentrated in the West and the Great Lakes region. (See Map 10.) As reported earlier, states in these regions were least likely to provide structural supports for the profession—such as a state mandate for the position and numerous (or indeed any) institutions offering school librarian preparation programs.

By far, the hotspot for no-librarian districts is California, where more than 9 out of 10 districts (93.6%) lack school librarians. (See Chart 13.)[7] Over 3 out of 4 Alaska districts (76.9%) were in a similar position. Two-thirds or more of districts lacked librarians in Oregon (69.9%), Arizona (68.7%), Michigan (68.3%), and Idaho (67.0%). Three out of 5 districts were librarian-less in New Mexico (60.2%) and South Dakota (59.7%). And more than half of districts had no school librarians in Minnesota (55.9%), Colorado (55.6%), and Washington (54.5%).[8]

Tables 12 and 13 provide state rankings for districts at both library staffing extremes—those with .75+ librarian FTE per school and those with zero librarian FTE per school, respectively. The range of percentages in each table indicates the extremity of the extent to which local districts vary in librarian staffing by state. To find these staffing levels reported by state in alphabetical order, return to Table 11.

[7] Notably, reporting of school librarian FTEs in California has been problematic in recent years, due to a shift toward reporting "teacher librarians" as teachers rather than librarians. Fortunately, state data made it possible to revise NCES's district data to reclaim those FTEs. Efforts are underway to improve the accuracy of district reports to NCES on school librarian FTEs.

[8] Most likely, Illinois does not appear in Chart 13 only because more than 48% of its districts did not report school librarian staffing for 2018-19. Illinois accounts for 429 of the nation's 465 non-reporting districts for that year; but, only 4 of its districts reported no librarians. This suggests that many, if not most, of the missing-data districts should have reported zero.

Map 10

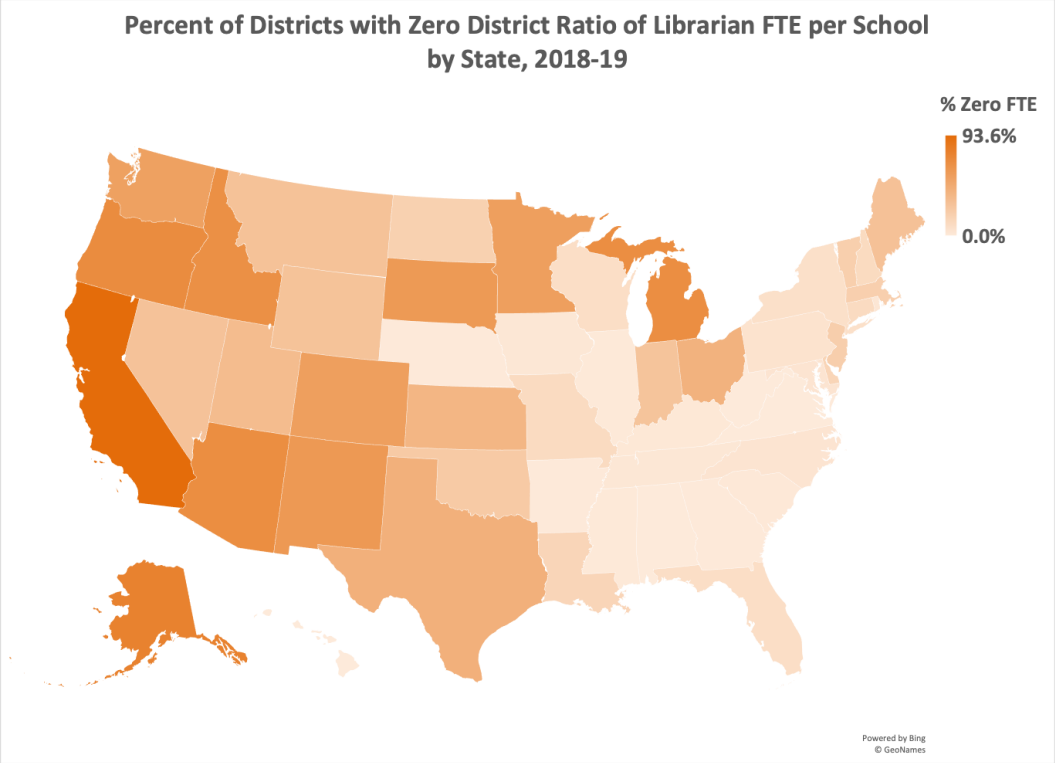


Chart 13

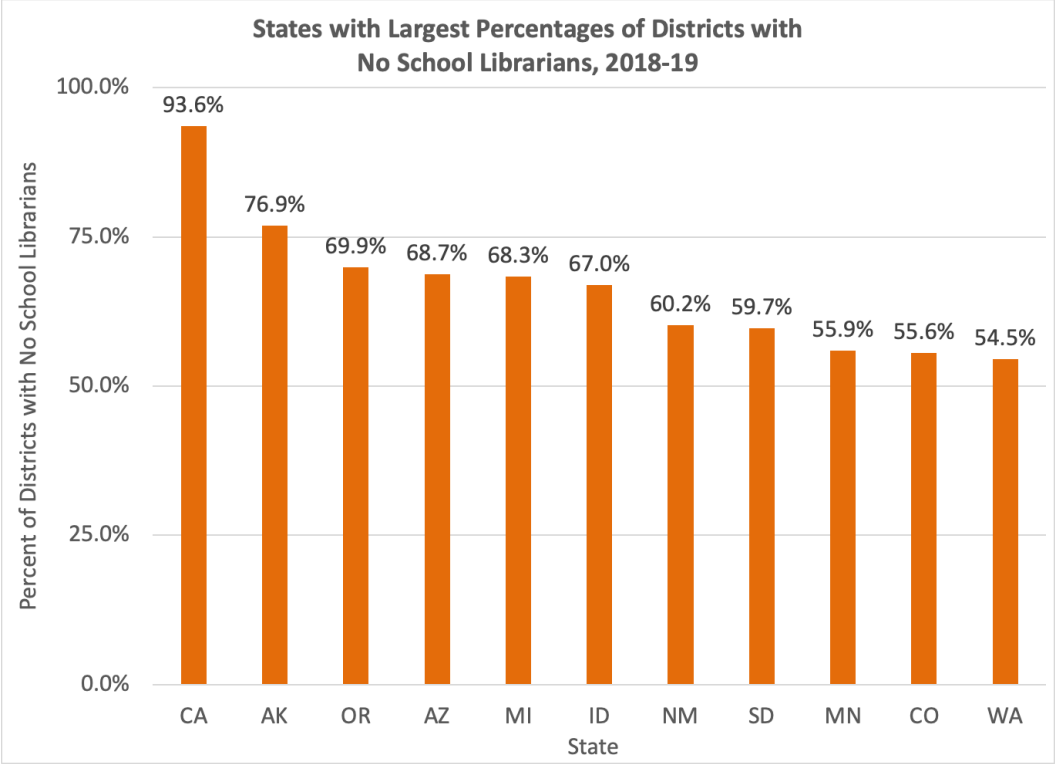


Table 12. States Ranked by Percent of Districts with .75+ School Librarian FTE per School, 2018-19

Rank	State	Percent of districts with DRLS .75+ FTE/school
1	DC	100.0%
2	SC	80.2%
3	AL	79.6%
4	AR	79.4%
5	TN	74.3%
6	GA	73.3%
7	MD	66.7%
8	NC	60.8%
9	CT	58.0%
10	NH	52.1%
11	LA	50.7%
12	NY	49.3%
13	VA	48.1%
14	KY	46.2%
15	MS	43.3%
16	VT	38.8%
17	IL	38.3%
18	RI	36.1%
19	PA	34.9%
20	NJ	34.7%
21	MA	26.9%
22	FL	25.4%
23	MO	21.1%
23	DE	21.1%
25	WI	19.4%
26	MT	18.5%
27	WV	17.6%
28	KS	14.3%
29	TX	13.4%
30	OK	13.1%
31	ME	11.0%
32	IN	9.9%
33	WA	5.7%
34	AZ	5.6%
35	OH	5.5%
35	IA	5.5%
37	NE	4.9%
37	UT	4.9%
39	ND	4.7%
40	CO	3.9%
41	AK	3.8%
42	MN	2.4%
43	NM	2.3%
44	MI	2.2%
45	WY	2.1%
46	ID	1.7%
46	OR	1.7%
48	SD	.7%
49	CA	.6%
50	HI	0.0%
50	NV	0.0%
	State Average	**27.7%**
	State Median	**18.5%**

Table 13. States Ranked by Percent of Districts with Zero School Librarian FTE per School, 2018-19

Rank	State	Percent of districts with zero FTE/school
1	CA	93.6%
2	AK	76.9%
3	OR	69.9%
4	AZ	68.7%
5	MI	68.3%
6	ID	67.0%
7	NM	60.2%
8	SD	59.7%
9	MN	55.9%
10	CO	55.6%
11	WA	54.5%
12	TX	42.9%
13	OH	41.5%
14	KS	38.5%
15	UT	34.1%
16	ME	30.4%
17	MT	29.8%
18	NV	29.4%
19	WY	29.2%
20	IN	28.3%
21	OK	23.8%
22	NJ	20.8%
23	VT	20.4%
24	MA	19.8%
25	ND	18.8%
26	DE	15.8%
27	LA	15.5%
28	NH	11.5%
29	CT	11.2%
29	MO	11.2%
31	WI	9.1%
32	FL	9.0%
33	NY	7.7%
34	PA	5.2%
35	MD	4.2%
35	NC	4.2%
37	RI	2.8%
38	IA	2.4%
39	TN	2.1%
40	KY	1.7%
41	SC	1.2%
42	IL	.9%
43	MS	.7%
44	GA	.6%
45	AR	.4%
45	NE	.4%
47	AL	0.0%
47	DC	0.0%
47	HI	0.0%
47	VA	0.0%
47	WV	0.0%
	State Average	**24.6%**
	State Median	**15.8%**

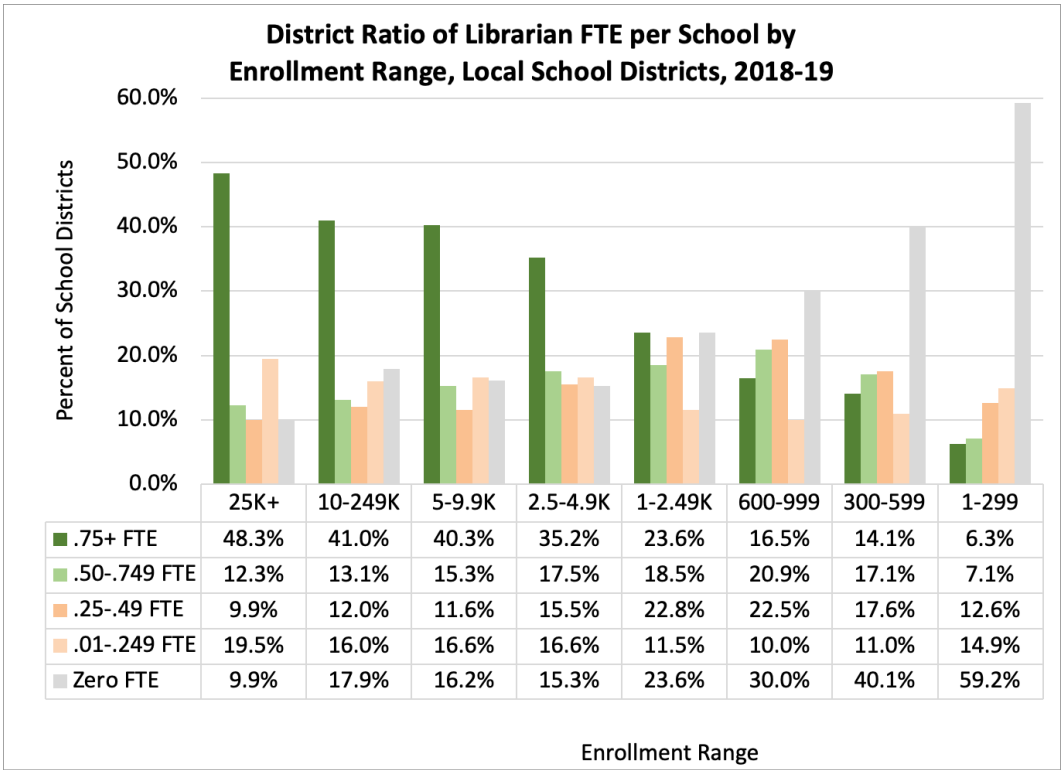
District Characteristics

Enrollment range, locale type, and per pupil expenditures are district characteristics associated significantly with inequality of access to school librarians. Data on these characteristics were strongly related to the District Ratio of Librarian FTE per School.

How does a district's enrollment relate to its level of librarian staffing?

Unsurprisingly, local districts serving larger enrollments were more likely to have a substantial librarian presence in most schools (.75+ FTE), while those serving smaller enrollments are more likely not to have librarians at all. (See Chart 14.) In 2018-19, 48.3% of districts with enrollments of 25,000 and over had .75+ librarian FTE per school. The same year, 59.2% of districts with enrollments under 300 reported zero librarians.

Chart 14



	25K+	10-249K	5-9.9K	2.5-4.9K	1-2.49K	600-999	300-599	1-299
.75+ FTE	48.3%	41.0%	40.3%	35.2%	23.6%	16.5%	14.1%	6.3%
.50-.749 FTE	12.3%	13.1%	15.3%	17.5%	18.5%	20.9%	17.1%	7.1%
.25-.49 FTE	9.9%	12.0%	11.6%	15.5%	22.8%	22.5%	17.6%	12.6%
.01-.249 FTE	19.5%	16.0%	16.6%	16.6%	11.5%	10.0%	11.0%	14.9%
Zero FTE	9.9%	17.9%	16.2%	15.3%	23.6%	30.0%	40.1%	59.2%

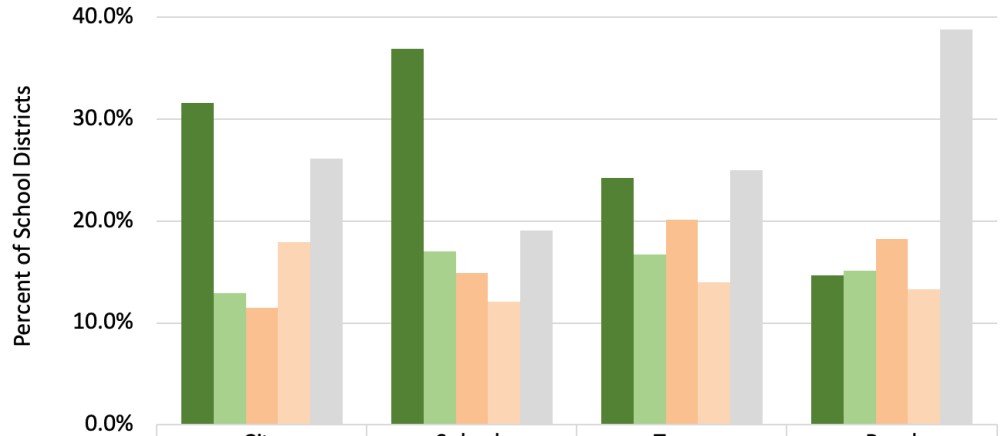
Districts with larger enrollments were more likely to report the highest level of librarian staffing and least likely to report no librarians. For districts with smaller enrollments, the opposite was true.

How does a district's locale relate to its level of librarian staffing?

The location of a district can affect all of the other equity factors that influence access to school librarians: enrollment size, per-pupil spending, poverty level, race/ethnicity, and language status. Districts located in suburbs were most likely to have .75+ librarian FTE per school, while those located in rural areas were most likely to report no librarians. In 2018-19, 36.9% of suburban districts had the highest librarian FTE levels per school, followed by city districts at 31.6%. The same year, 38.8% of rural districts reported no librarians. (See Chart 15. See Locale in Appendix B for locale type definitions.)

Chart 15

District Ratio of Librarian FTE per School by Locale, Local School Districts, 2018-19



	City	Suburb	Town	Rural
.75+ FTE	31.6%	36.9%	24.2%	14.7%
.50-.749 FTE	12.9%	17.0%	16.7%	15.1%
.25-.49 FTE	11.5%	14.9%	20.1%	18.2%
.01-.249 FTE	17.9%	12.1%	14.0%	13.3%
Zero FTE	26.1%	19.1%	25.0%	38.8%

Locale

Suburban districts were most likely to report higher levels of librarian staffing and least likely to report no librarians. The opposite was true for rural districts.

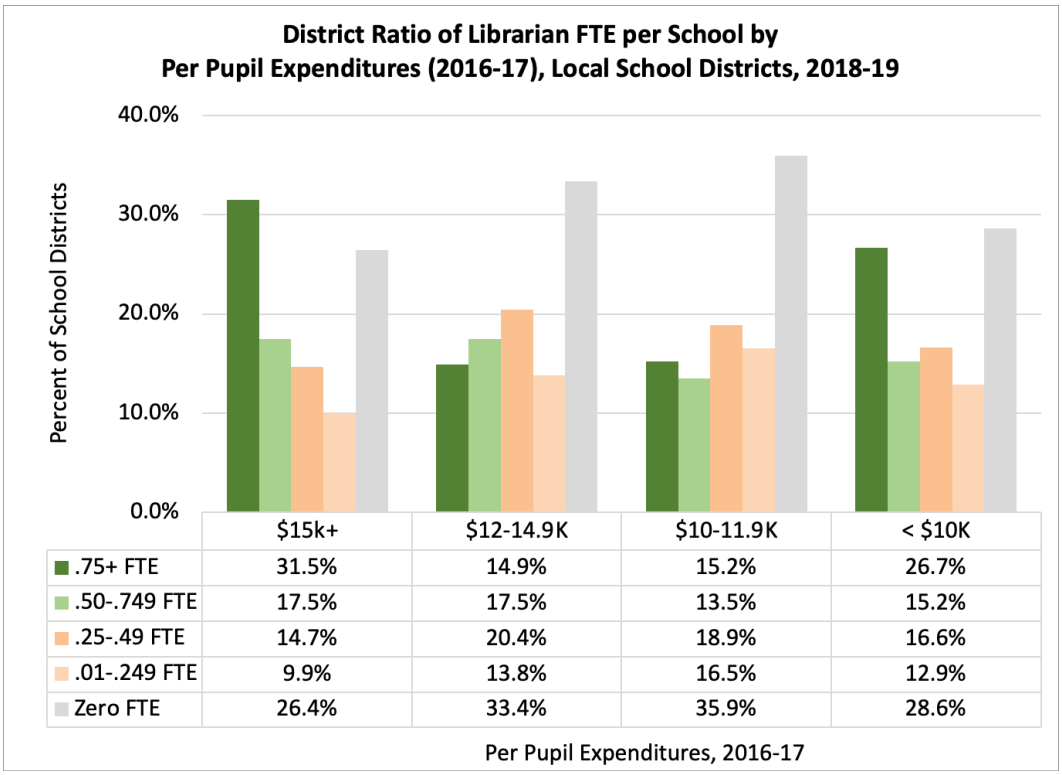
How does a district's funding relate to its level of librarian staffing?

Local districts that spent the most per pupil (in 2016-17, the latest available data) were most likely to report the highest level of librarian staffing in 2018-19. Surprisingly, however, there was not a linear relationship between K-12 spending and librarian FTE per school. (See Chart 16.) Almost a third (31.5%) of districts spending $15,000 or more per pupil had .75+ librarian FTE per school. More than a quarter (26.7%) of the poorest districts—those spending less than $10,000 per pupil—had similar staffing levels. Districts with more middling per-pupil spending ($10,000 to $14,999 per pupil) were the least likely—at about 15%—to have similarly high levels of librarian staffing.

Conversely, districts that spent the most per pupil ($15,000 or more) and the least (less than $10,000) were almost equally less likely to report not having librarians—just over a quarter for each group (26.4% and 28.6%, respectively). Districts with more middling spending ($10,000 to $11,999 and $12,000 to $14,999 per pupil) were almost equally more likely to report no librarians—just over a third for each group (33.4% and 35.9%, respectively).

These findings challenge the notion that employment of school librarians is mostly a matter of funding. This implies that other factors besides financial pressures drive decisions about whether or not to employ librarians. The SLIDE interviews of school decision-makers will attempt to elicit some of those factors as well as the thinking involved in assessing the tradeoffs between financial and other factors when making staffing decisions.

Chart 16



	$15k+	$12-14.9K	$10-11.9K	< $10K
.75+ FTE	31.5%	14.9%	15.2%	26.7%
.50-.749 FTE	17.5%	17.5%	13.5%	15.2%
.25-.49 FTE	14.7%	20.4%	18.9%	16.6%
.01-.249 FTE	9.9%	13.8%	16.5%	12.9%
Zero FTE	26.4%	33.4%	35.9%	28.6%

Based on the non-linear relationship between per pupil spending and librarian staffing, funding cannot be the only factor determining whether or not a district has school librarians.

Student Demographics

Socio-economic differences between districts were also powerful drivers of inequality of access to school librarians. The Common Core of Data (CCD) provides data on three student demographics that demonstrated strong, significant relationships to the District Ratio of Librarian FTE per School: Free and Reduced-cost Meals Eligibility (a poverty indicator), race/ethnicity, and language status.

How does poverty relate to a district's level of librarian staffing?

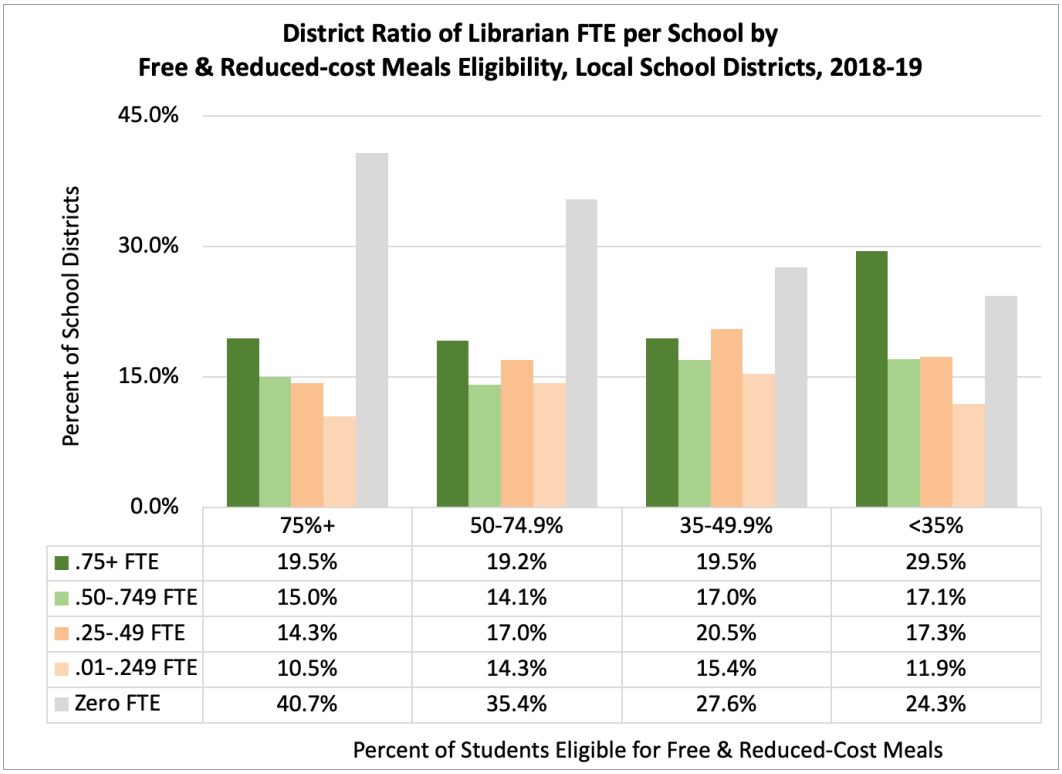
A common measure of poverty in education research is the percentage of a district's students who are eligible for the federal Free and Reduced-cost Meals program. Notably, unlike school spending, this financial variable was more predictably related to librarian staffing levels. (See Chart 17.) In 2018-19, almost 3 out of 10 districts with the fewest students eligible for the federal meals program (29.5%) had .75+ librarian FTE per school. Of other districts, only 1 out of 5 (19.2% to 19.5%) had that highest staffing level.

The relationship between poverty and having no librarians was more linear. Two out of 5 (40.7%) districts with 75% or more of their students in poverty reported no librarians, while fewer than a quarter (24.3%) of districts with fewer than 35% of their students in poverty reported no librarians.

Districts with the most students in poverty were most likely to have no librarians. Districts with the fewest students in poverty were most likely to have librarians in all or most schools.

These findings are concerning, as they indicate that schools in poorer communities were less likely than schools in wealthier communities to enjoy the benefits of the services librarians have to offer to students and their teachers. Despite decades of federal and state education programs intended to reduce such inequities, they continue. Ironically, students in schools experiencing such inequities need the services of librarians even more than their counterparts in more prosperous schools.

Chart 17



	75%+	50-74.9%	35-49.9%	<35%
.75+ FTE	19.5%	19.2%	19.5%	29.5%
.50-.749 FTE	15.0%	14.1%	17.0%	17.1%
.25-.49 FTE	14.3%	17.0%	20.5%	17.3%
.01-.249 FTE	10.5%	14.3%	15.4%	11.9%
Zero FTE	40.7%	35.4%	27.6%	24.3%

How does the racial and ethnic composition of a district's student body relate to its level of librarian staffing?

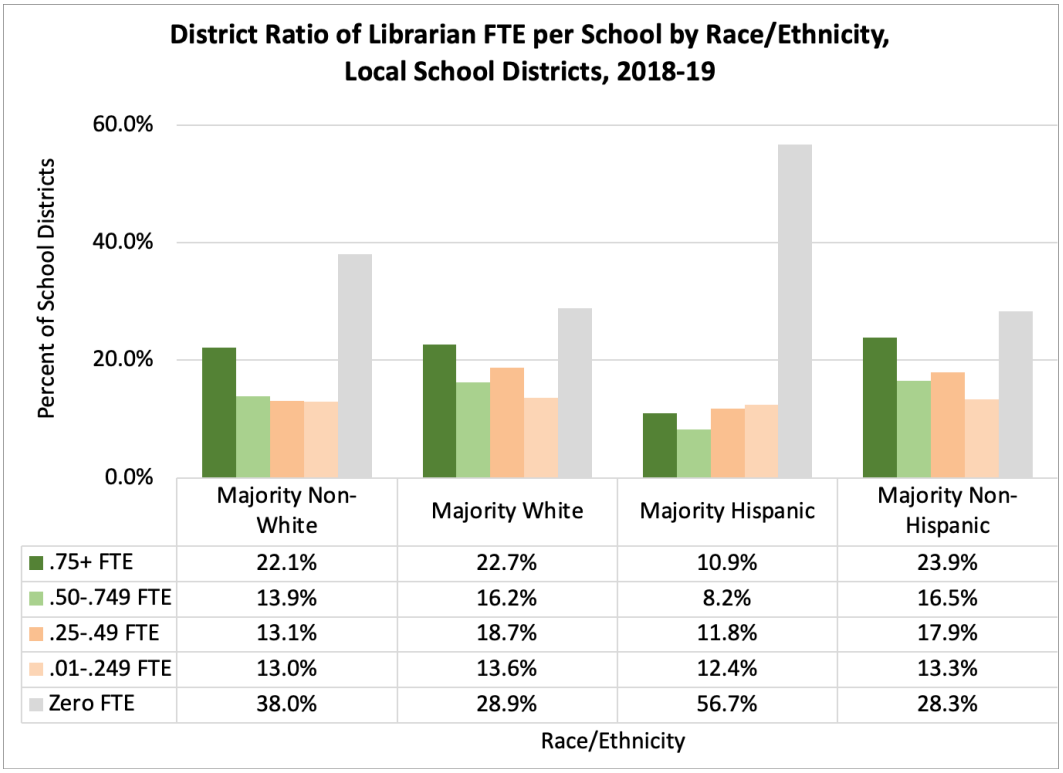
There were predictable differences in librarian staffing associated with majority non-white versus majority white districts as well as majority Hispanic versus majority non-Hispanic ones. The extremity of the two sets of differences is somewhat surprising. (See Appendix B for explanations of "race" and "ethnicity.")

Majority white and majority non-Hispanic districts were more likely than others to have higher levels of librarian staffing. Majority Hispanic districts were twice as likely not to have librarians as majority non-Hispanic districts.

In 2018-19, the percentages of majority non-white and majority white districts with .75+ librarian FTE per school were almost equal at 22.1% and 22.7%, respectively. The same year, however, 38.0% of majority non-white districts reported no librarians compared with 28.9% of majority white districts. (See Chart 18.)

Differences associated with ethnicity were much more extreme than those associated with race. Also, in 2018-19, fewer than half as many majority Hispanic districts (only 10.9%) reported .75+ librarian FTE per school compared to majority non-Hispanic districts (23.9%). Conversely, twice as many majority Hispanic districts (56.7%) reported no librarians compared to majority non-Hispanic districts (28.3%).

Chart 18



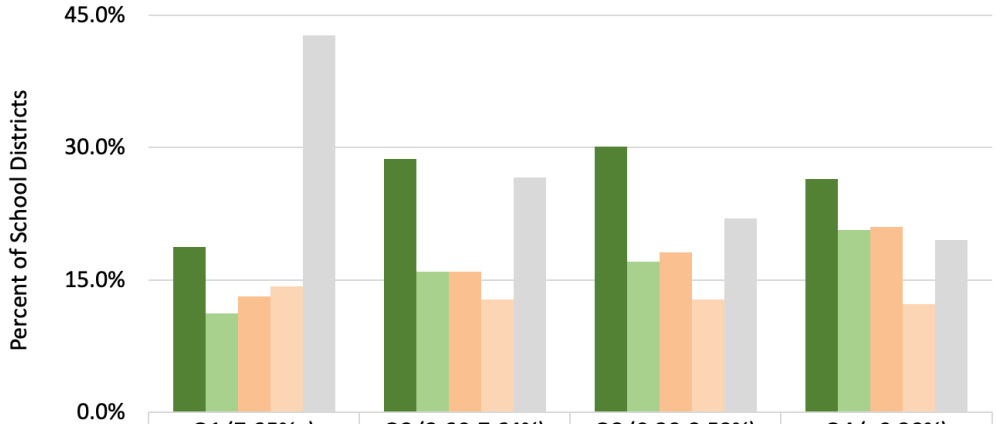
How does the presence of English Language Learners relate to a district's level of librarian staffing?

Districts with the most English Language Learners (ELL) were least likely to have .75+ librarian FTE per school and most likely, by far, to have no librarians. In 2018-19, the highest level of librarian staffing (.75+ FTE per school) was found in fewer than 1 in 5 districts (18.7%) with the most ELL students compared to more than a quarter of districts (26.4%) with the fewest ELL students. The same year, more than 2 out of 5 districts (42.7%) with the most ELL students had no librarians compared with 1 out of 5 districts (19.5%) with the fewest ELL students. (See Chart 19.)

Districts with the most English Language Learners were least likely to have the highest level of librarian staffing and most likely, by far, to have no librarians.

Chart 19

District Ratio of Librarian FTE per School by English Language Learner Status, Local School Districts, 2018-19



	Q1 (7.65%+)	Q2 (2.60-7.64%)	Q3 (0.89-2.59%)	Q4 (<0.89%)
.75+ FTE	18.7%	28.7%	30.1%	26.4%
.50-.749 FTE	11.2%	15.9%	17.1%	20.7%
.25-.49 FTE	13.1%	15.9%	18.1%	21.0%
.01-.249 FTE	14.3%	12.8%	12.8%	12.3%
Zero FTE	42.7%	26.6%	22.0%	19.5%

Quartile of English Language Learners

Districts Reporting Any Librarians & No Librarians, 2015-16 through 2018-19

This section examines school librarian employment to determine trends over time from 2015-16 to 2018-19. Districts that maintained some level of school librarian FTEs shared certain district characteristics and student demographics. Districts that eliminated librarian positions by the middle of the last decade—and had not restored them by 2018-19—fit a very different profile.

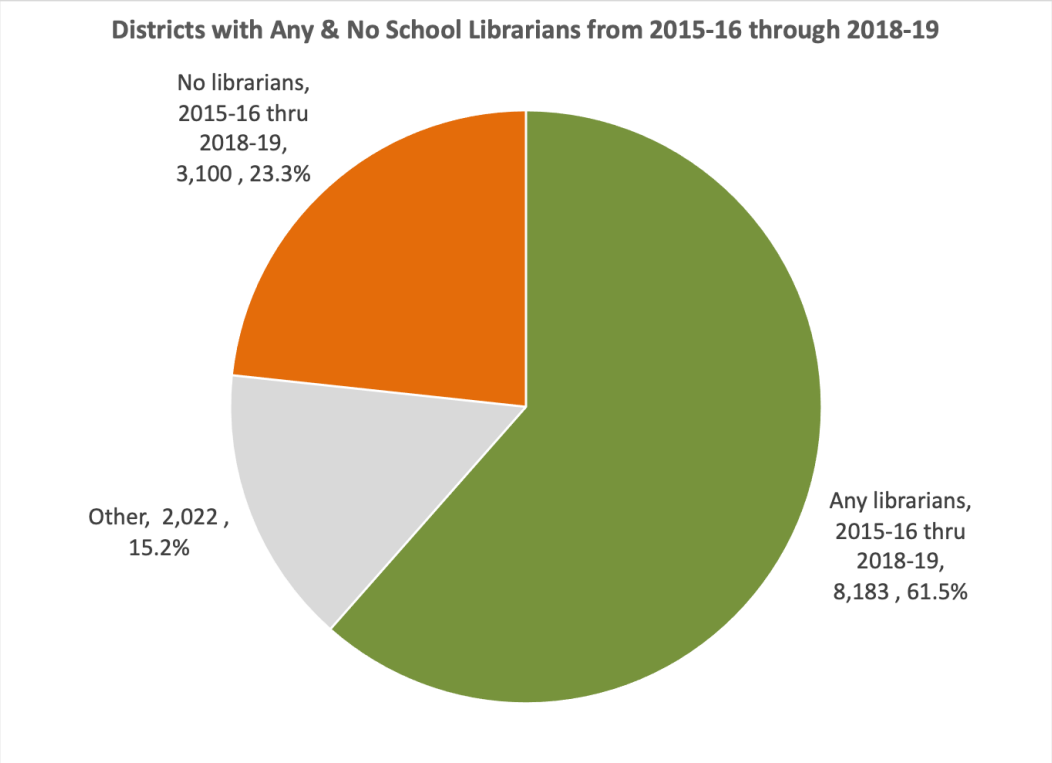
How many districts maintained any level of school librarian staffing—however variable it may have been—between 2015-16 and 2018-19? And conversely, how many districts have reported no librarians between 2015-16 and 2018-19?

Three out of 5 districts (61.5%) reported some full-time equivalent (FTE) of school librarians between 2015-16 and 2018-19. Almost a quarter of districts (23.3%) have reported no school librarians since at least 2015-16. Remaining districts (15.2%) are those that had librarians some years, and not others. (See Chart 20.)

61.5% of local school districts have employed school librarians consistently between 2015-16 and 2018-19. Almost a quarter have reported no librarians since at least 2015-16.

Districts that maintained school librarians share certain geography, district characteristics, and student demographics. Districts that gave up their last librarians by the middle of the last decade—and have not reported restoring them—fit a very different profile.

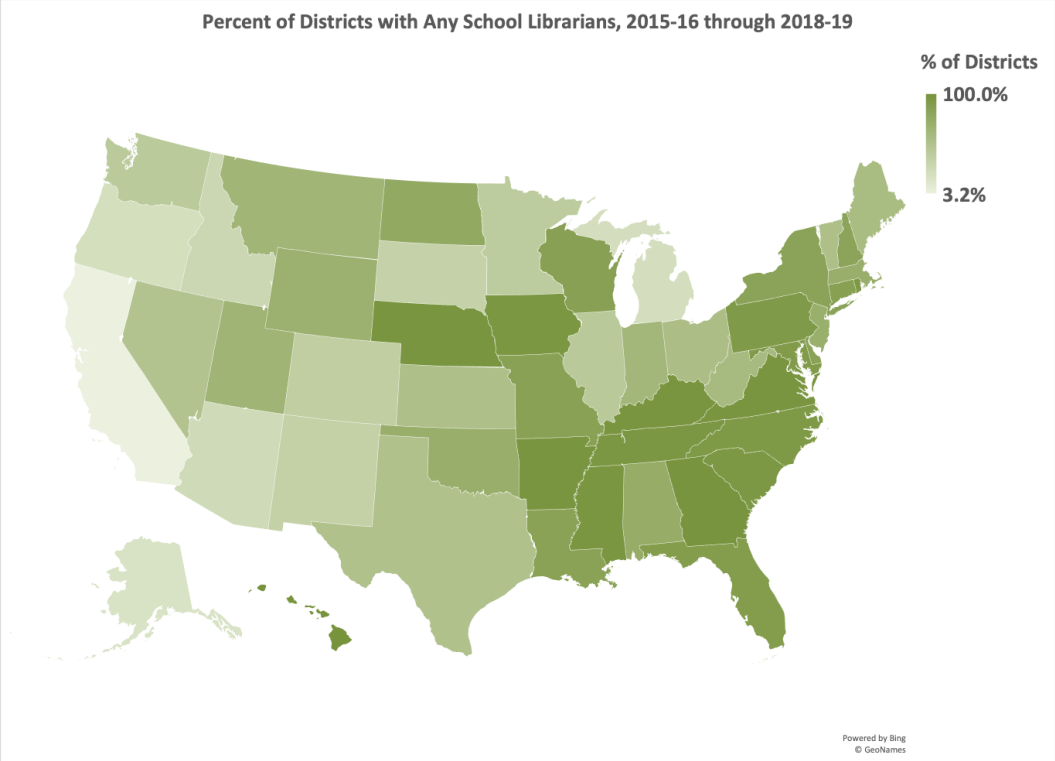
Chart 20



Which states had the largest percentage of districts that continuously employed school librarians between 2015-16 and 2018-19?

Applying the comparison ratios—librarian FTE per school, students per librarian FTE, and teachers per librarian FTE—districts that sustained some level of librarian staffing were concentrated in in the eastern half of the nation, particularly the South. (See Map 11.)

Map 11



Jurisdictions with the largest percentages of districts that employed school librarians continuously between 2015-16 and 2018-19 included D.C. and Hawaii (100.0% as each is a single district) as well as seven Southern states—Georgia (98.9%), Arkansas (98.3%), Virginia, Kentucky (both 97.7%), Mississippi (97.2%), Tennessee (95.9%), and South Carolina (95.2%). Other similarly staffed Midwestern states include Nebraska (98.4%) and Iowa (96.4%). (See Chart 21.)

Between 2015-16 and 2018-19, districts in the South and Northeast were more likely to have continuously employed school librarians than those in the West.

Which states had the smallest percentages of districts that continuously employed school librarians between 2015-16 and 2018-19?

Twelve states reported fewer than half of their districts as continuous employers of school librarians. Those states include 8 Western states: Washington (43.8%), Colorado (39.3%), New Mexico (36.0%), Idaho (29.6%), Arizona (26.2%), Oregon (22.2%), Alaska (18.9%), and California (3.2%). The remaining 4 states with low percentages of districts employing librarians continuously are in the Midwest: Illinois (44.7%)[9], Minnesota (41.6%), South Dakota (34.9%), and Michigan (22.3%). (See Chart 22.) Percentages of districts reporting any librarians consistently from 2015-16 to 2018-19 are reported by state in Tables 14a and 14b.

[9] As almost half of Illinois districts did not report librarian staffing, this percentage is incomplete.

Chart 21

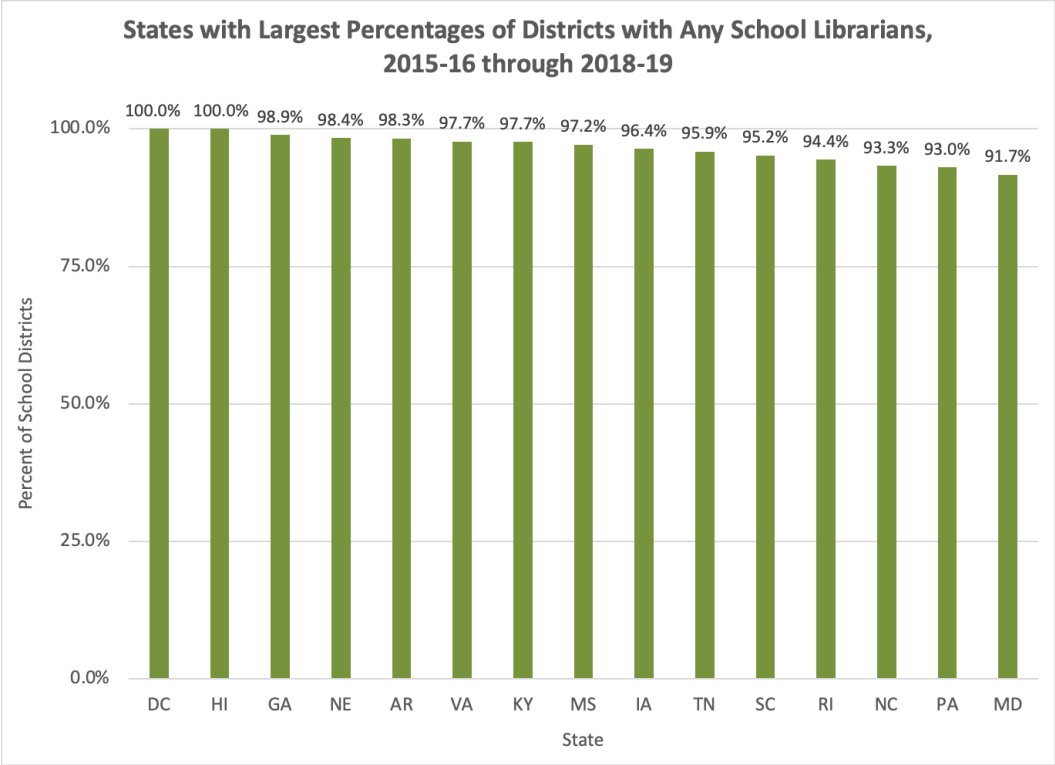
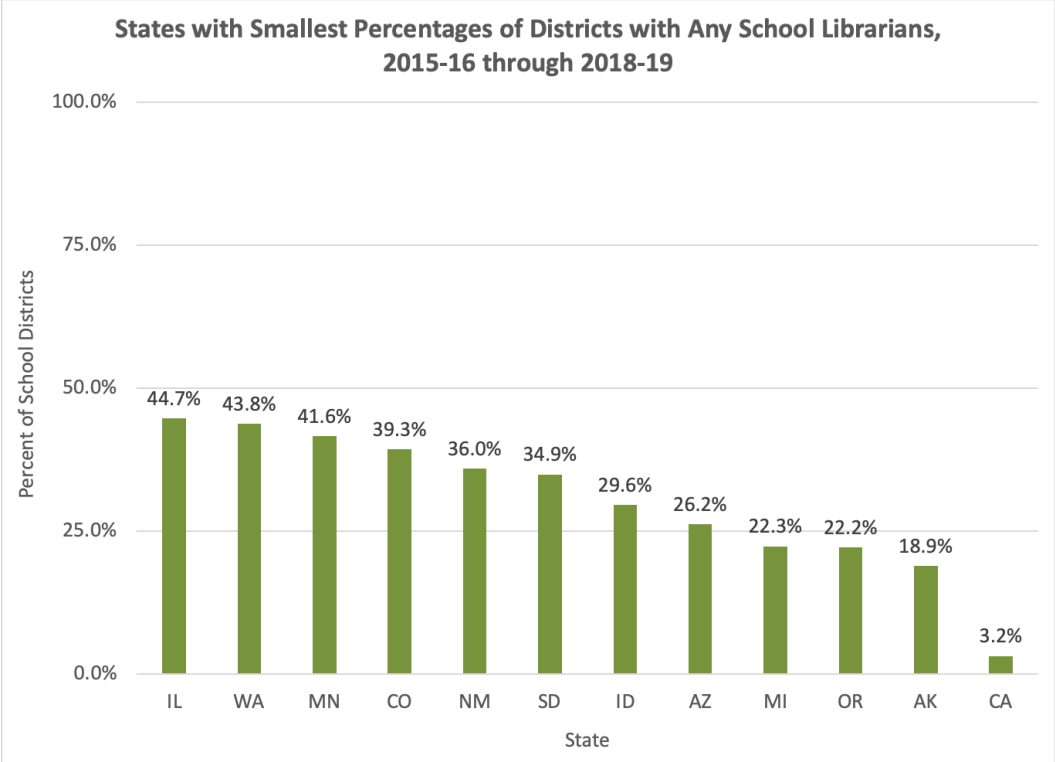


Chart 22[10]



[10] Almost half of Illinois districts did not report school librarian staffing during this four-year period, so this data is incomplete.

Table 14. Percent of Districts with Any School Librarians by State, 2015-16 through 2018-19

a. In alphabetical order by state

State	Any librarians 2015-16 through 2018-19
AK	18.9%
AL	74.5%
AR	98.3%
AZ	26.2%
CA	3.2%
CO	39.3%
CT	87.0%
DC	100.0%
DE	84.2%
FL	89.6%
GA	98.9%
HI	100.0%
IA	96.4%
ID	29.6%
IL	44.7%
IN	63.1%
KS	54.2%
KY	97.7%
LA	84.5%
MA	71.9%
MD	91.7%
ME	58.1%
MI	22.3%
MN	41.6%
MO	85.7%
MS	97.2%
MT	64.8%
NC	93.3%
ND	77.1%
NE	98.4%
NH	82.4%
NJ	71.6%
NM	36.0%
NV	50.0%
NY	83.5%
OH	55.8%
OK	72.7%
OR	22.2%
PA	93.0%
RI	94.4%
SC	95.2%
SD	34.9%
TN	95.9%
TX	52.3%
UT	65.9%
VA	97.7%
VT	54.4%
WA	43.8%
WI	86.1%
WV	60.0%
WY	68.8%
State Average	**68.8%**
State Median	**72.7%**

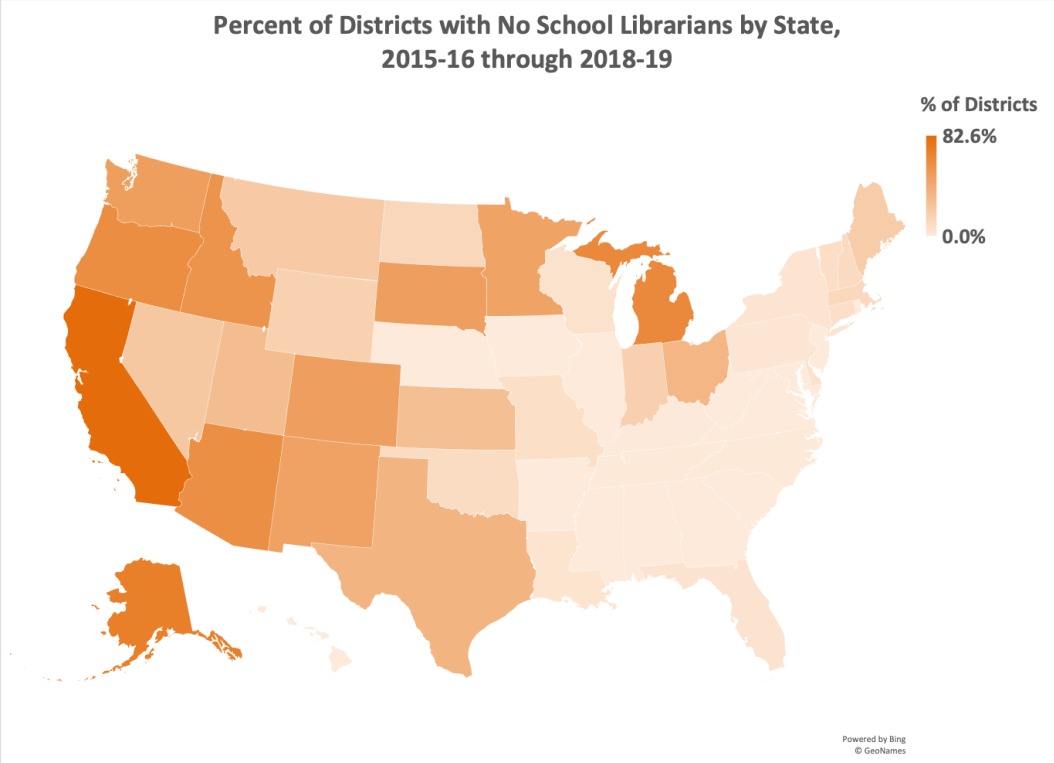
b. In descending order by percent of districts

Rank	State	Any librarians 2015-16 through 2018-19
1	DC	100.0%
1	HI	100.0%
3	GA	98.9%
4	NE	98.4%
5	AR	98.3%
6	VA	97.7%
6	KY	97.7%
8	MS	97.2%
9	IA	96.4%
10	TN	95.9%
11	SC	95.2%
12	RI	94.4%
13	NC	93.3%
14	PA	93.0%
15	MD	91.7%
16	FL	89.6%
17	CT	87.0%
18	WI	86.1%
19	MO	85.7%
20	LA	84.5%
21	DE	84.2%
22	NY	83.5%
23	NH	82.4%
24	ND	77.1%
25	AL	74.5%
26	OK	72.7%
27	MA	71.9%
28	NJ	71.6%
29	WY	68.8%
30	UT	65.9%
31	MT	64.8%
32	IN	63.1%
33	WV	60.0%
34	ME	58.1%
35	OH	55.8%
36	VT	54.4%
37	KS	54.2%
38	TX	52.3%
39	NV	50.0%
40	IL	44.7%
41	WA	43.8%
42	MN	41.6%
43	CO	39.3%
44	NM	36.0%
45	SD	34.9%
46	ID	29.6%
47	AZ	26.2%
48	MI	22.3%
49	OR	22.2%
50	AK	18.9%
51	CA	3.2%
	State Average	**68.8%**
	State Median	**72.7%**

Which states had the largest percentages of districts reporting no school librarians between 2015-16 and 2018-19?

During the 4 years under study, states with more districts without librarians long-term were concentrated in the West and the northern tier of the Midwest. States with some consistent level of librarian staffing were concentrated in the South along with some states in the Midwest. (See Map 12.)

Map 12



Between 2015-16 and 2018-19, states that continuously had no librarians were concentrated in the West and the northern tier of the Midwest.

During this time period, regional patterns emerged among states with the most long-term no-librarian districts. Of the 11 states reporting more than 45% of their districts without librarians for the 4 years of study, 8 were in the West: California (82.6%), Alaska (69.8%), Oregon (60.2%), Arizona (59.3%), Idaho (56.5%), Washington (49.5%), Colorado (48.9%), and New Mexico (47.2%). The 3 remaining states with large percentages of long-term no-librarian districts were in the Midwest: Michigan (63.3%), South Dakota (49.0%), and Minnesota (45.9%). (See Chart 23.) Percentages of districts in each state consistently without school librarians between 2015-16 and 2018-19 are reported in Tables 15a and 15b.

Chart 23

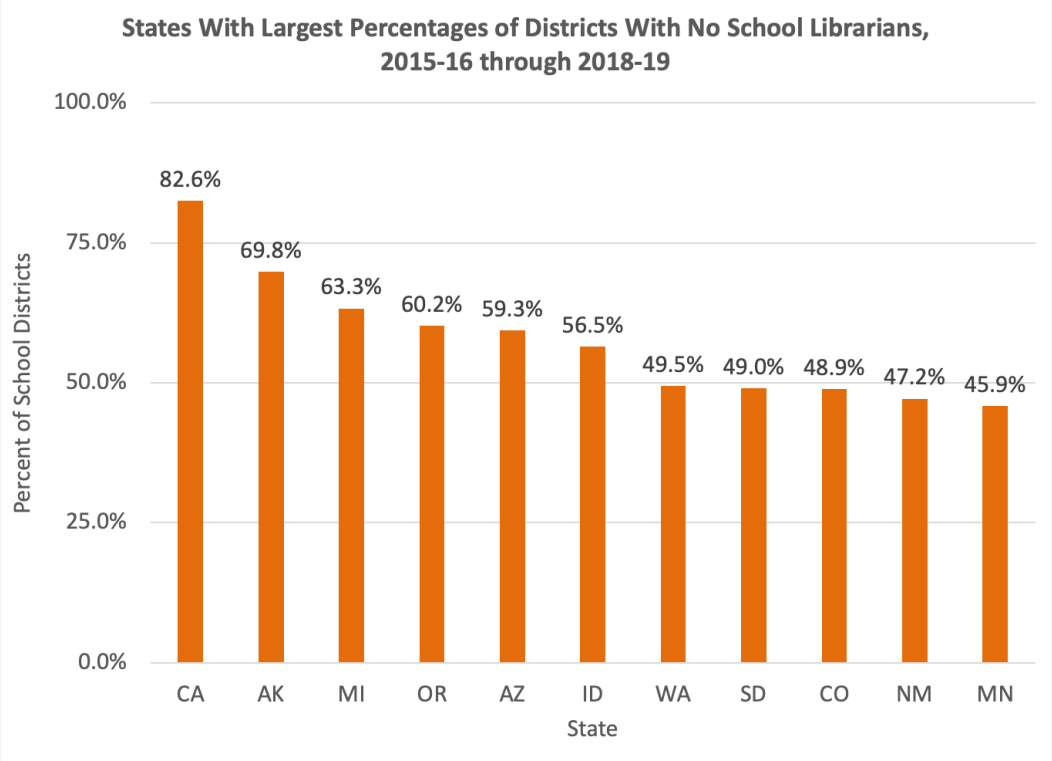

States With Largest Percentages of Districts With No School Librarians, 2015-16 through 2018-19
Percent of School Districts
100.0%
75.0%
50.0%
25.0%
0.0%
82.6%
69.8%
63.3%
60.2%
59.3%
56.5%
49.5%
49.0%
48.9%
47.2%
45.9%
CA
AK
MI
OR
AZ
ID
WA
SD
CO
NM
MN
State

Table 15. Percent of Districts with No School Librarians by State, 2015-16 through 2018-19

a. In alphabetical order by state

State	No librarians 2015-16 through 2018-19
AK	69.8%
AL	0.0%
AR	0.0%
AZ	59.3%
CA	82.6%
CO	48.9%
CT	7.1%
DC	0.0%
DE	5.3%
FL	4.5%
GA	0.0%
HI	0.0%
IA	0.0%
ID	56.5%
IL	0.0%
IN	17.1%
KS	28.3%
KY	.6%
LA	4.2%
MA	12.0%
MD	0.0%
ME	19.4%
MI	63.3%
MN	45.9%
MO	7.4%
MS	0.0%
MT	21.2%
NC	.8%
ND	12.4%
NE	0.0%
NH	9.7%
NJ	0.0%
NM	47.2%
NV	22.2%
NY	4.2%
OH	34.2%
OK	9.0%
OR	60.2%
PA	2.6%
RI	0.0%
SC	0.0%
SD	49.0%
TN	.7%
TX	35.7%
UT	29.3%
VA	0.0%
VT	8.2%
WA	49.5%
WI	5.5%
WV	0.0%
WY	16.7%
State Average	**18.6%**
State Median	**7.4%**

b. In descending order by percent of districts

Rank	State	No librarians 2015-16 through 2018-19
1	CA	82.6%
2	AK	69.8%
3	MI	63.3%
4	OR	60.2%
5	AZ	59.3%
6	ID	56.5%
7	WA	49.5%
8	SD	49.0%
9	CO	48.9%
10	NM	47.2%
11	MN	45.9%
12	TX	35.7%
13	OH	34.2%
14	UT	29.3%
15	KS	28.3%
16	NV	22.2%
17	MT	21.2%
18	ME	19.4%
19	IN	17.1%
20	WY	16.7%
21	ND	12.4%
22	MA	12.0%
23	NH	9.7%
24	OK	9.0%
25	VT	8.2%
26	MO	7.4%
27	CT	7.1%
28	WI	5.5%
29	DE	5.3%
30	FL	4.5%
31	LA	4.2%
31	NY	4.2%
33	PA	2.6%
34	NC	.8%
35	TN	.7%
36	KY	.6%
37	AL	0.0%
37	AR	0.0%
37	DC	0.0%
37	GA	0.0%
37	HI	0.0%
37	IA	0.0%
37	IL	0.0%
37	MD	0.0%
37	MS	0.0%
37	NE	0.0%
37	NJ	0.0%
37	RI	0.0%
37	SC	0.0%
37	VA	0.0%
37	WV	0.0%
	State Average	**18.6%**
	State Median	**7.4%**

District Characteristics

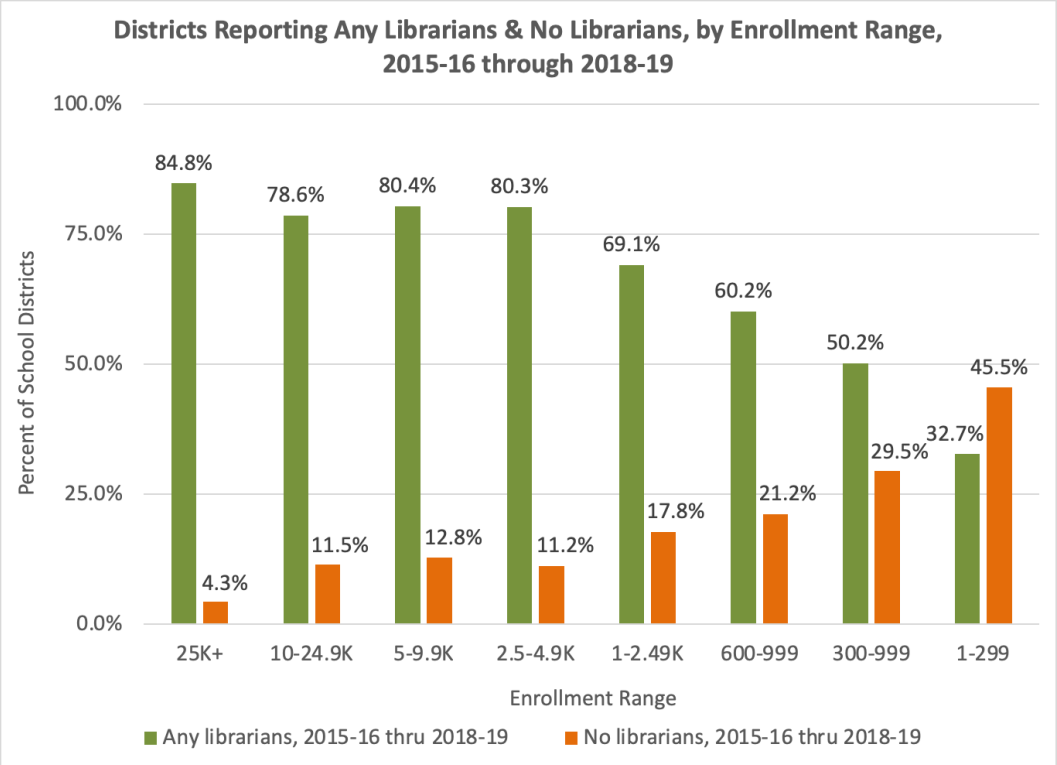
The long-term presence or absence of a school librarian, as reported by districts, is strongly related to three district characteristics: enrollment, locale, and per-pupil expenditures.

How does a district's enrollment relate to the long-term presence or absence of librarians?

Between 2015-16 and 2018-19, 4 out of 5 districts (more than 80%) with enrollments of 2,500 or more reported consistently having librarians. However, the proportion of districts with stable librarian staffing dropped off sharply for smaller enrollments, ranging from 7 out of 10 (69.1%) for enrollments between 1,000 and 2,499 to fewer than a third (32.7%) for those with fewer than 300 students. Conversely, only 1 out of 23 of the largest districts—those with 25, 000 or more students—(4.3%) were without librarians during this four-year period, compared with almost half (45.5%) of districts with fewer than 300 students. (See Chart 24.)

From 2015-16 through 2018-19, districts serving larger enrollments were more likely to employ librarians consistently, while districts serving smaller enrollments were more likely to have had no librarians.

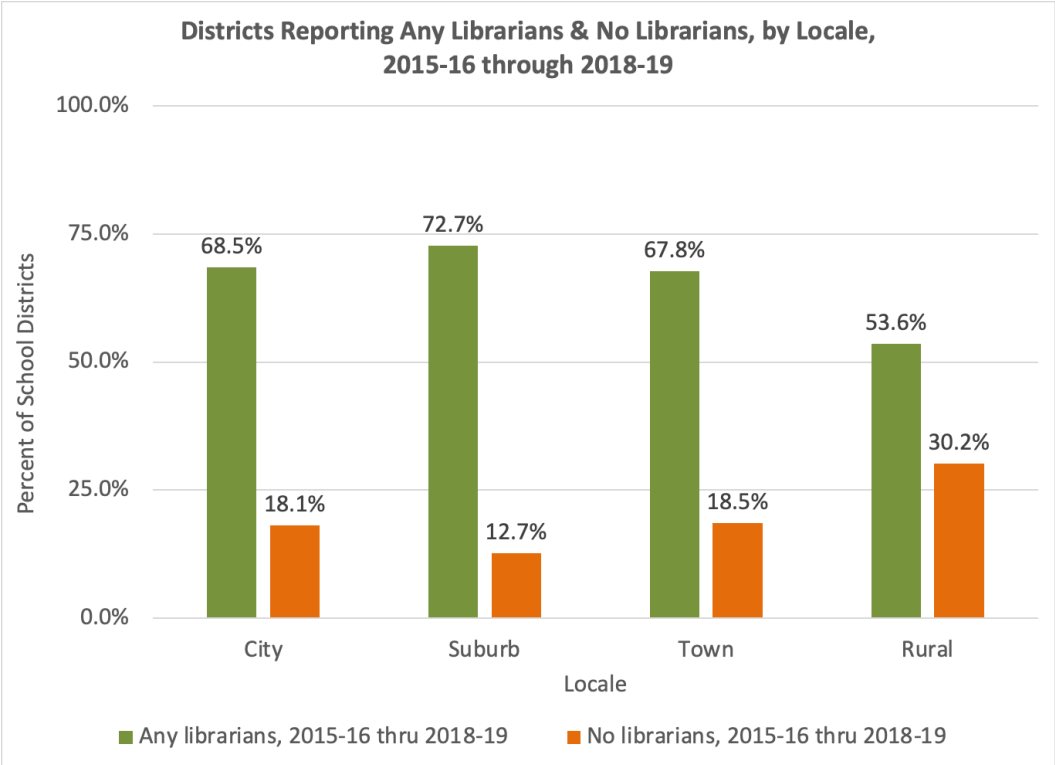
Chart 24



How does a district's locale relate to the long-term presence or absence of librarians?

Between 2015-16 and 2018-19, suburban districts were most consistent in employing school librarians, while rural districts were most consistently without them. Librarians were employed, at some level, consistently between these years by more than 7 out of 10 suburban districts (72.7%), more than two-thirds of districts in central cities (68.5%) and outlying towns (67.8%), and just over half of districts in rural areas (53.6%). Conversely, 3 out of 10 rural districts (30.2%) have been without librarians, compared with about 1 out of 6 districts in central cities (18.1%) and outlying towns (18.5%) and fewer than 1 out of 8 suburban districts (12.7%). (See Chart 25. See Locale in Appendix B for definitions of city, suburb, town, and rural areas.)

Chart 25



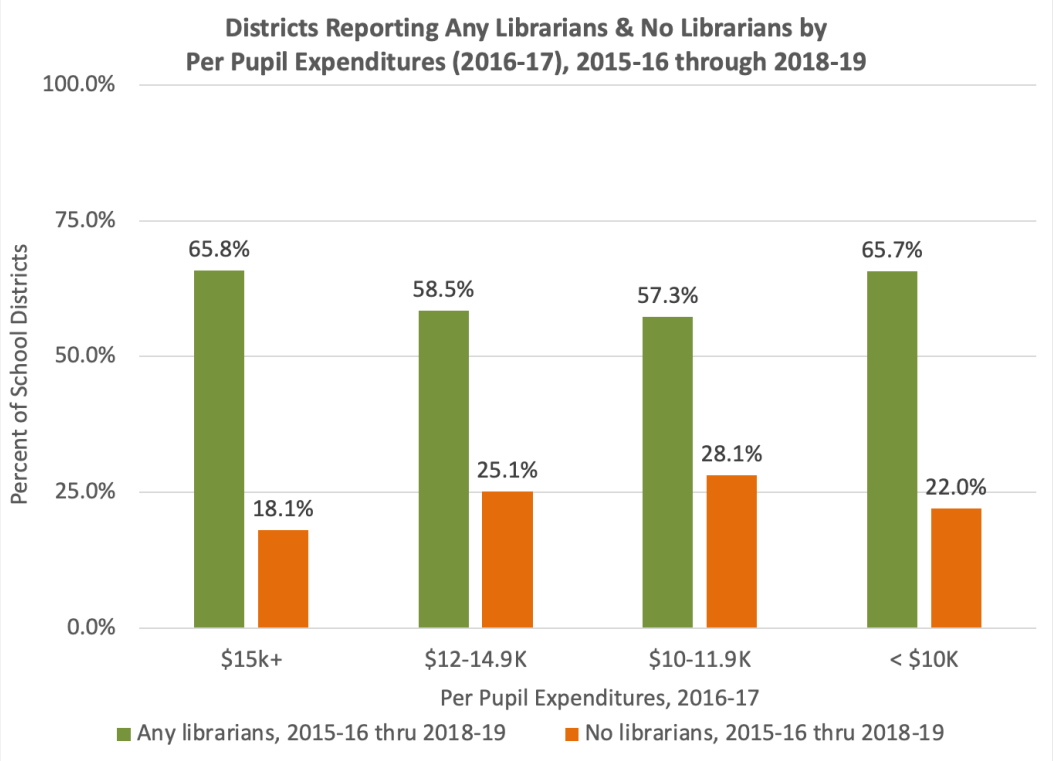
Between 2015-16 and 2018-19, more suburban districts consistently employed school librarians, and more rural districts were consistently without librarians.

How does a district's funding relate to the long-term presence or absence of school librarians?

Data about the consistency with which districts do or do not employ school librarians and its relationship to per-pupil spending challenge the often-heard claim that school librarians were cut because of insufficient funding. The districts most likely to have had librarians consistently between 2015-16 and 2018-19 were the wealthiest and the poorest ones (65.8% of districts spending $15,000 or more per pupil and 65.7% of those spending less than $10,000 per pupil in 2016-17). Fewer than 3 out of 5 districts spending between $10,000 and $14,999 per pupil employed librarians consistently. Conversely, a quarter or more of districts with middling funding (25.1% to 28.1%) were the ones most likely to be without librarians over this time period. (See Chart 26.)

School funding alone cannot explain librarian staffing decisions. Between 2015-16 and 2018-19, districts most likely to have employed librarians consistently were those spending the most—and the least—per pupil.

Chart 26



Student Demographics

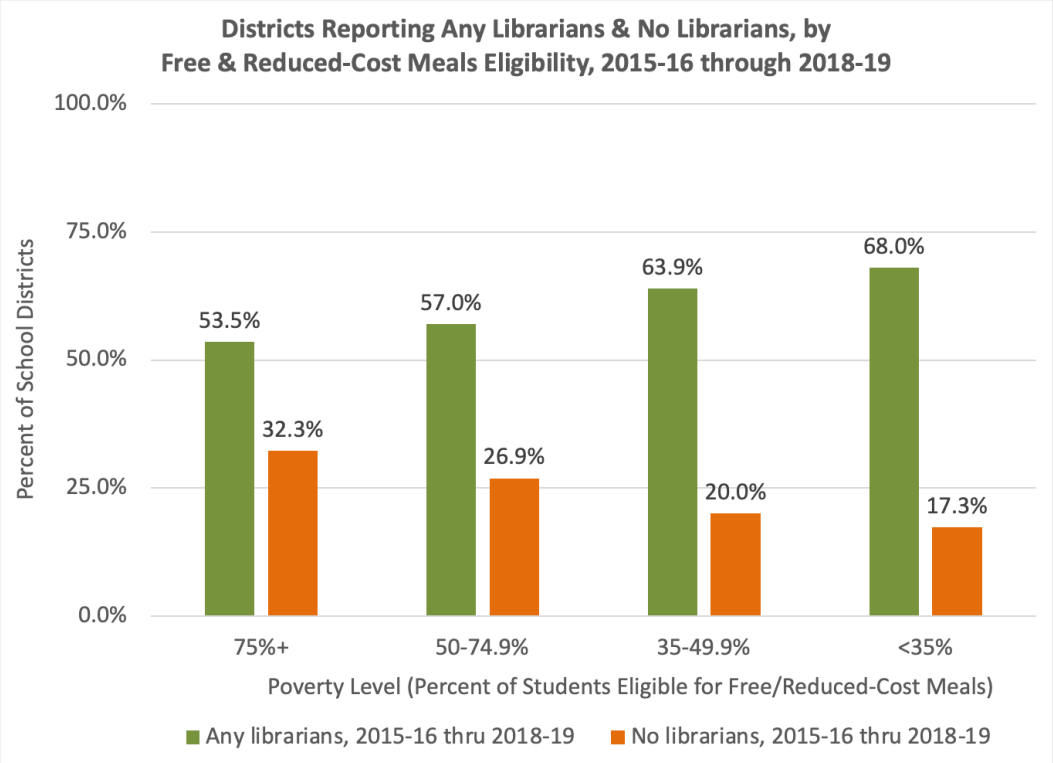
Socio-economic differences between districts are also powerful drivers of long-term inequality of access to school librarians. The Common Core of Data (CCD) provides data on three student demographics that demonstrated strong, significant relationships to the presence and absence of librarians between 2015-16 and 2018-19: Free and Reduced-cost Meals eligibility (a poverty indicator), race/ethnicity, and language status.

How does poverty relate to the long-term presence or absence of school librarians?

Over the 4-year time period studied, just over half of the districts with the highest poverty levels (53.5%) reported having librarians consistently since 2015-16 compared to more than two-thirds of the districts with the lowest poverty levels (68.0%). (See Chart 27.) The indicator of poverty is the percentage of a district's students who are eligible for the federal Free and Reduced-cost Meals program. (See Appendix B.) Conversely, almost a third of districts with the highest poverty levels (32.3%) did not have librarians throughout the 4 years, while only fewer than 1 in 6 of districts with the lowest poverty levels (17.3%) had no librarians for multiple years. Notably, a student in one of the poorest districts was almost twice as likely to have had little or no exposure to a librarian as their counterpart in one of the least poor districts.

Between 2015-16 and 2018-19, districts with the most students in poverty were the most likely to have been without school librarians consistently. Districts with the fewest students in poverty were the most likely to have had librarians all 4 years.

Chart 27



How do race and ethnicity relate to the long-term presence or absence of school librarians?

Differences in long-term employment of librarians are related strongly to the racial makeup of a district's student body. More than 3 out of 5 majority white districts (63.3%) have had librarians consistently between 2015-16 and 2018-19, while just over half (55.5%) of majority non-white districts have experienced the same. Conversely, almost 3 out of 10 majority non-white districts (29.0%) have been without librarians since 2015-15 compared with only about 1 out of 5 majority white districts (21.6%). (See Chart 28.)

Majority non-white districts were less likely to have had librarians between 2015-16 and 2018-19. Over the same period, more than twice as many majority Hispanic districts as majority non-Hispanic districts were consistently without librarians.

The differences in long-term school librarian employment were more extreme for majority Hispanic versus majority non-Hispanic districts. More than 3 out of 5 majority non-Hispanic districts (64.1%) had librarians between 2015-16 and 2018-19, compared with fewer than 2 out of 5 majority Hispanic districts (38.4%).

The most egregious inequity based on ethnicity, however, concerns districts that were without librarians for at least 4 years. Almost half of majority Hispanic districts (46.7%) were without librarians compared with only 1 out of 5 majority non-Hispanic districts (21.0%). Notably, a student in a majority Hispanic district was more than twice as likely to have had little or no experience of a school librarian as their counterpart in a majority non-Hispanic district.

How does the presence of English Language Learners relate to the long-term presence or absence of school librarians?

Between 2015-16 and 2018-19, as a district's percentage of students who were English Language Learners grew, the odds of it having had librarians since 2015-16 declined, while the odds of it having had no librarians increased. Of districts with the most English Language Learners (top quartile), only about half (51.9%) had librarians all 4 years, while more than a third (34.4%) had no librarians during the same period. Of districts with the fewest ELL students (bottom quartile), more than 7 out of 10 (72.7%) had librarians all 4 years, and only about 1 out of 7 (13.5%) had been without librarians. (See Chart 29.)

Districts with the most English Language Learners were least likely to have had librarians consistently between 2015-16 and 2018-19, and more than twice as likely as districts with the fewest ELL students to have had no librarians throughout the same period.

Chart 28

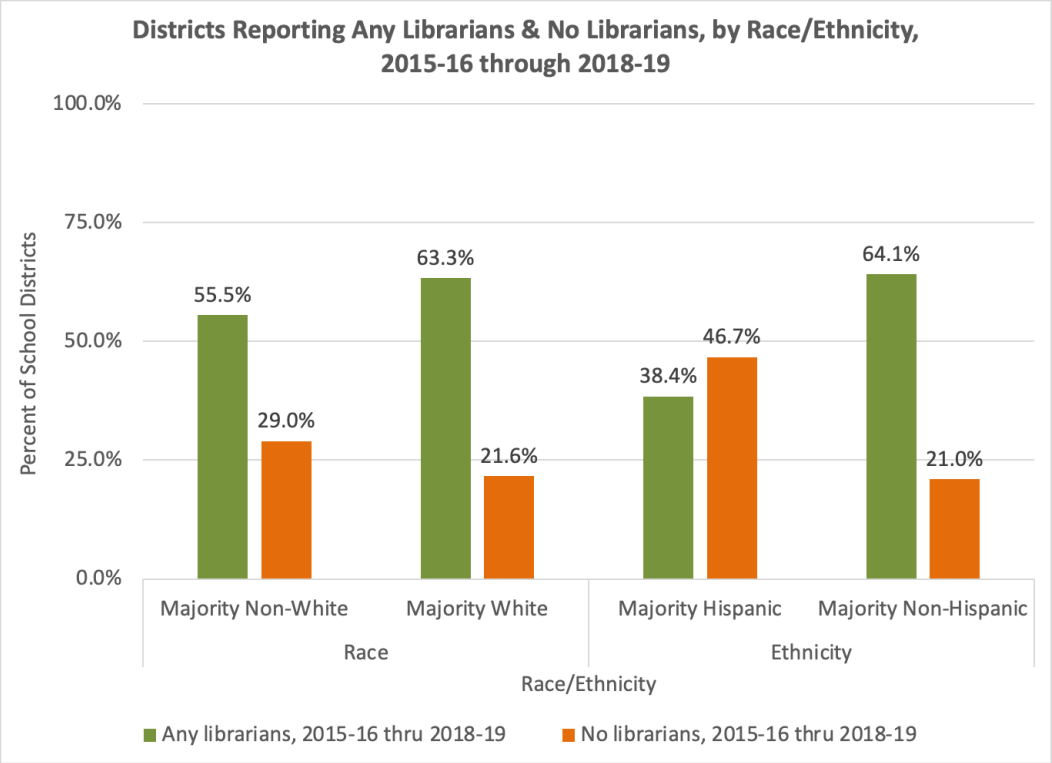
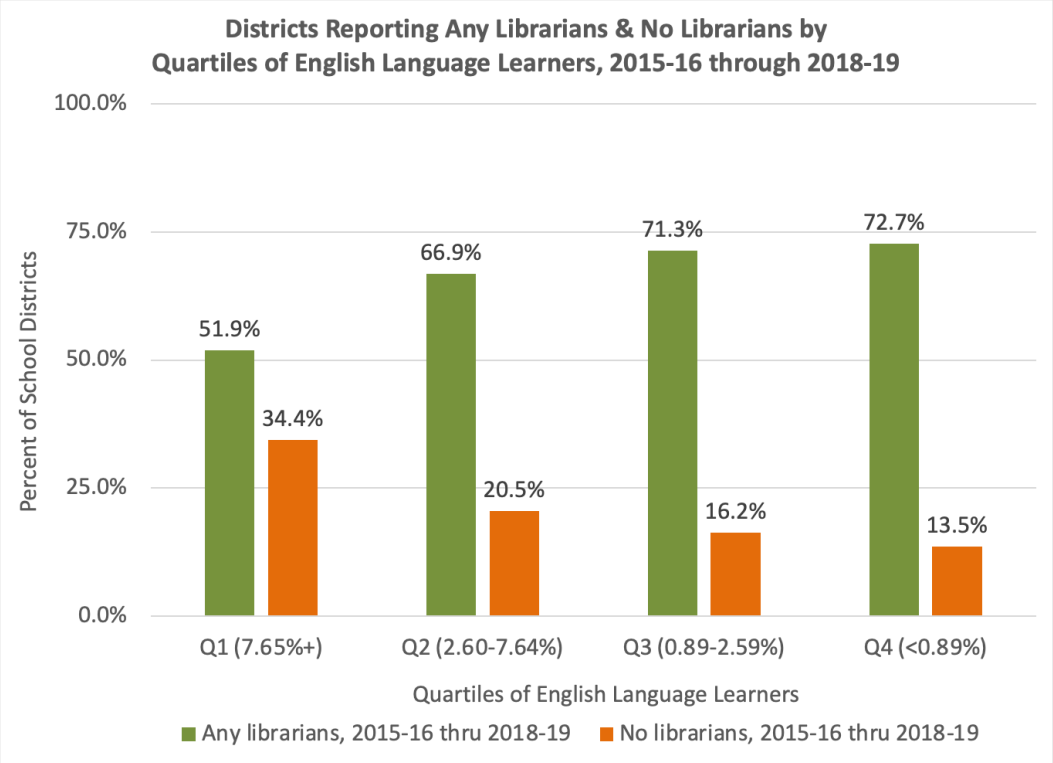


Chart 29

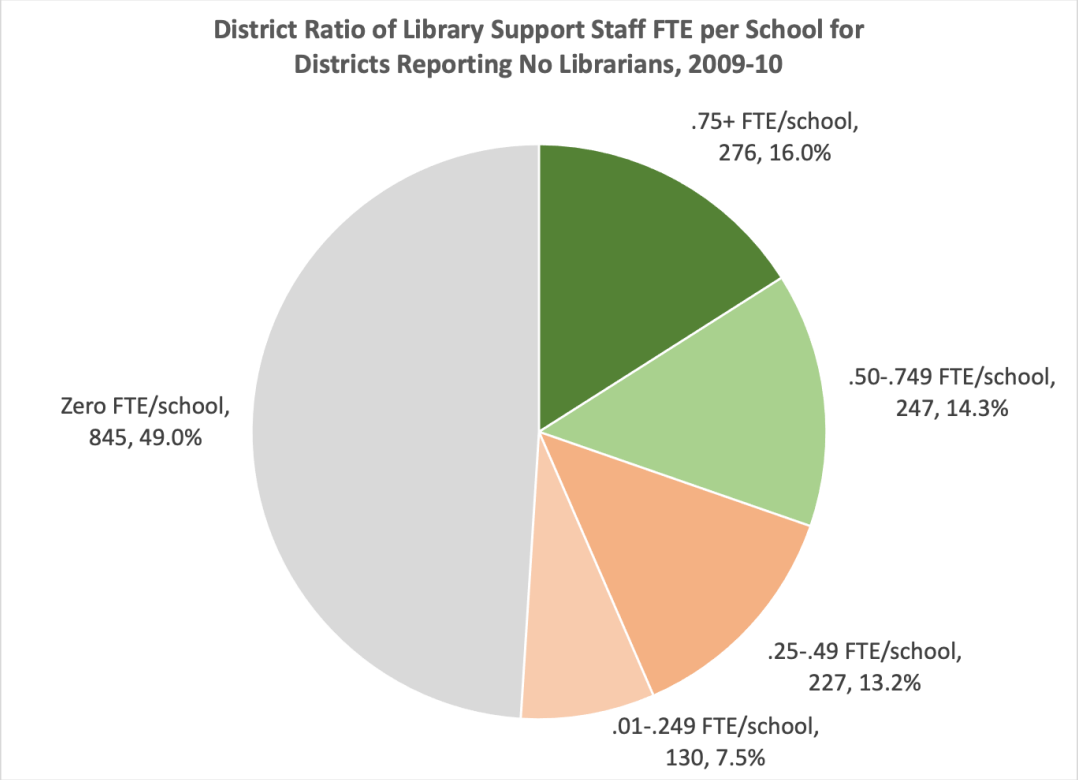


Replacement of School Librarians with Library Support Staff

To what extent have local school districts been replacing school librarians with library support staff?

To determine if librarians were being replaced by library support staff, we analyzed NCES's library staffing data from 2009-10 to 2018-19. In 2009-10, there were 12,145 districts that reported some level of school librarian staffing (including none). Of those, 2,159 districts—17.8% of that year's 12,145 local districts—had no librarians. Of those 2,159 districts 1,725 also reported some level of library support staff. Almost half of those 1,725 districts (49%) reported no library support staff as well as no librarians. Of the remaining districts—those relying on library support staff without any librarians—about 1 in 6 (16.0%) reported near-full-time library support staffing (.75+ FTE) per school, about 1 in 7 (14.3%) reported half- to three-quarter time library support staffing per school, and about 1 in 5 (20.7%) reported less than half-time library support staffing per school. (See Chart 30.)

Chart 30[11]



[11] Notably, this analysis does not report library support staff levels for individual schools without librarians, if there were any librarians elsewhere in the district.

In 2018-19, there were 12,840 districts that reported to NCES some level of school librarian staffing (including none). Of those, 3,983 districts—31% of the 12,840 districts—had no librarians. Of these 3,983 "no librarians" districts, 1,323 or almost half (47.1%) reported some level of library support staff. The remainder—1,488 or more than half (52.9%)—reported no library support staff as well as no librarians.

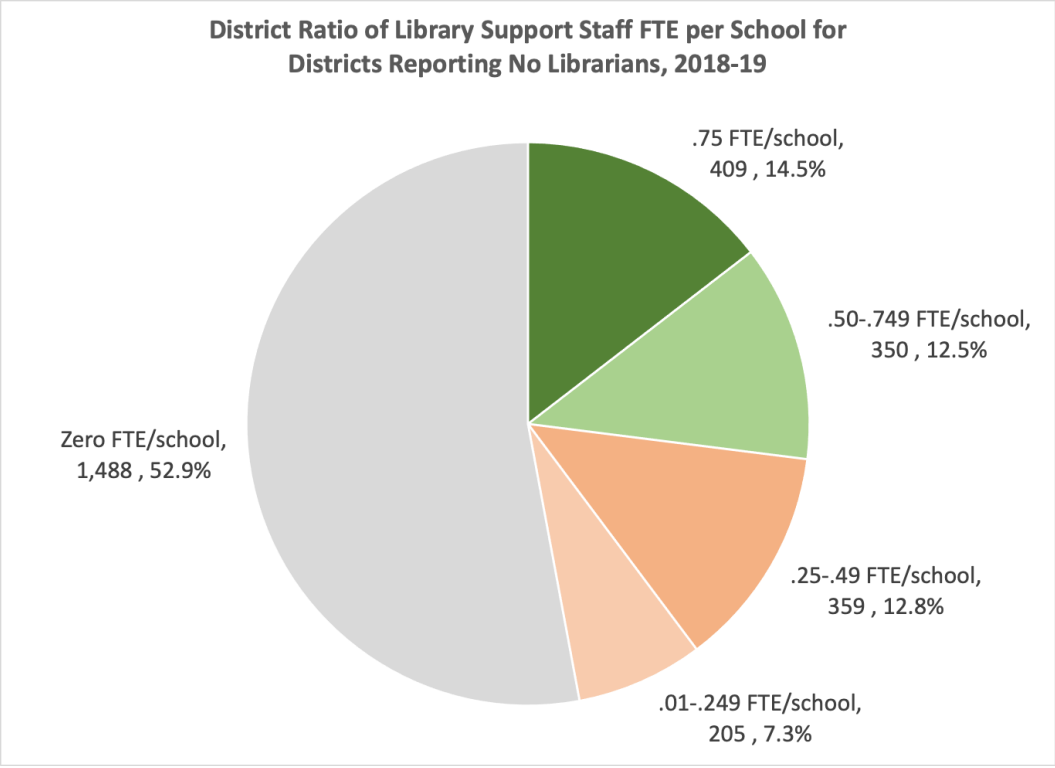
In 2018-19, almost half of districts with no librarians reported some level of library support staff—library aides working without the supervision or guidance of on-site librarians.

Of the districts relying on library support staff without any librarians, about 1 in 7 (14.5%) reported near-full-time library support staff per school, about 1 in 8 (12.5%) reported half- to three-quarter time library support staff per school, and about 1 in 5 (20.1%) reported less than half-time library support staff per school. (See Chart 31.)

These circumstances—analogous to having instructional aides replacing teachers—raise concerning questions:

- Who, if anyone, provided these paraprofessionals with daily supervision?
- To what extent are they—though classified and reported as library support staff—expected to deliver all or part of the services usually associated with a certified, professional librarian?
- If they are being expected to work beyond the paraprofessional level, what services are they attempting to provide, how well are they doing that, and what is falling by the wayside?
- Or, is the employment of library support staff instead of librarians simply a reflection of a staffing decision-maker's determination that having someone to monitor the library space and the use of its resources (e.g., computers, makerspace equipment, books and other physical materials) is "good enough?"

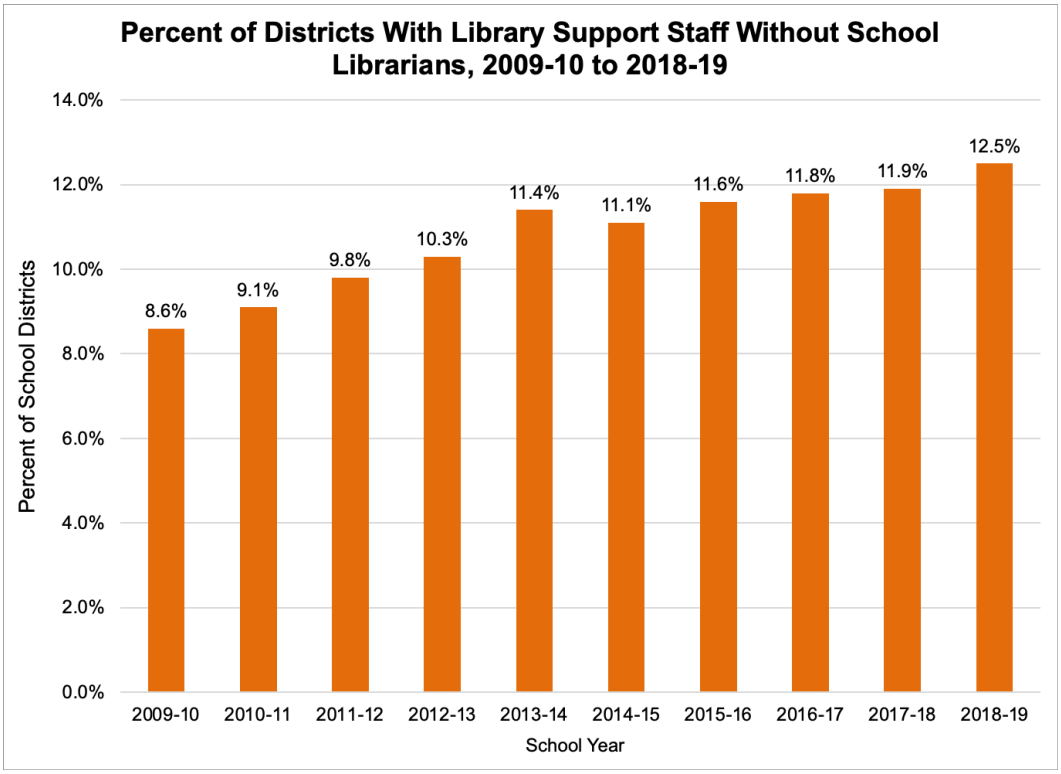
Chart 31



The replacement of school librarians with library support staff is a growing trend. In 2009-10, only about 1 in 12 districts (8.6%) employed library support staff, but no librarians. By 2018-19, 1 out of 8 districts (12.5%) were employing library support staff, but no librarians. (See Chart 32.) Notably, these figures include only whole districts without librarians. In addition to these cases, there were also an unknown number of schools with library support staff in place of librarians, due to the presence of librarians elsewhere in the district.

Between 2009-10 and 2018-19, the percentage of districts relying on library support staff working without librarians increased by almost half from 8.6% to 12.5%.

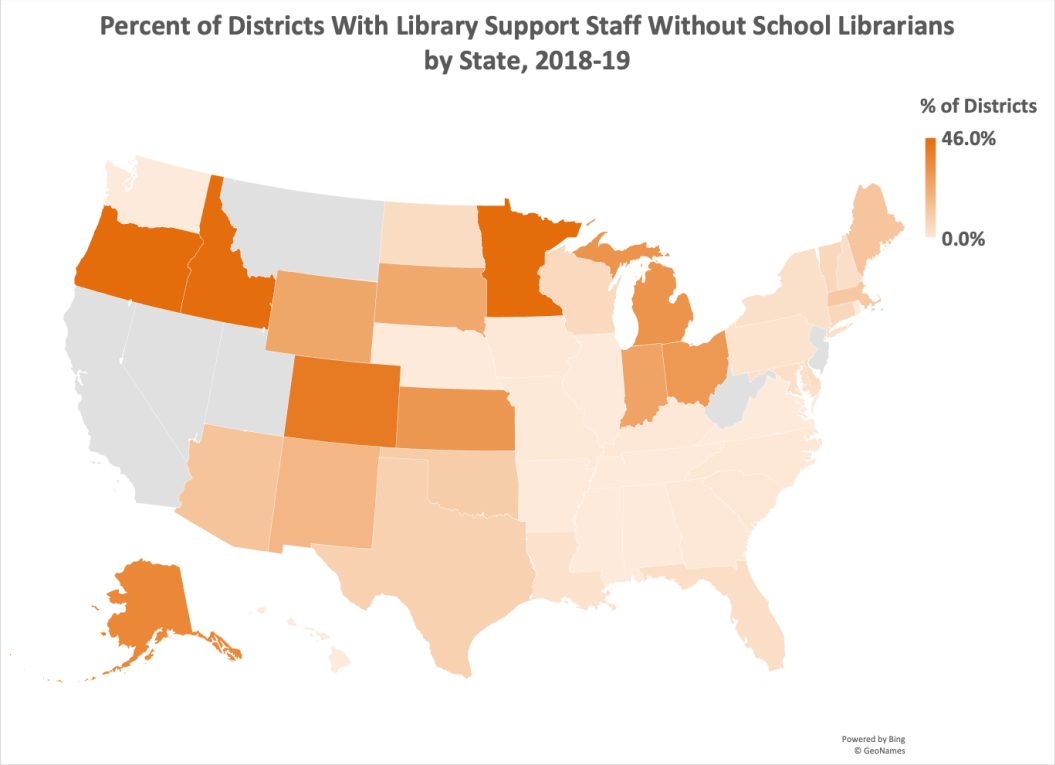
Chart 32



While these year-to-year increases in districts replacing librarians with library support staff are concerning, they are being driven largely by a few states in the West and the Great Lakes region. (See Map 13.) By 2018-19, between 2 out of 5 and almost half of districts employed library support staff without librarians in 4 states: Oregon (46.0%), Minnesota (45.9%), Idaho (45.2%), and Colorado (40.4%). Between a quarter and more than a third of districts relied on library support staff in place of librarians in 6 states: Alaska (35.8%), Michigan (31.5%), Kansas (30.4%), Ohio (29.8%), Indiana (25.9%), and Wyoming (25.0%). (See Chart 33 and Tables 16 and 17.)

Over the past decade, more and more districts have been employing library support staff in place of librarians. By 2018-19, this trend was most pronounced in 4 states—Oregon, Minnesota, Idaho, and Colorado.

Map 13



States for which data not available: CA, MT, NJ, NV, UT, and WV.

Chart 33

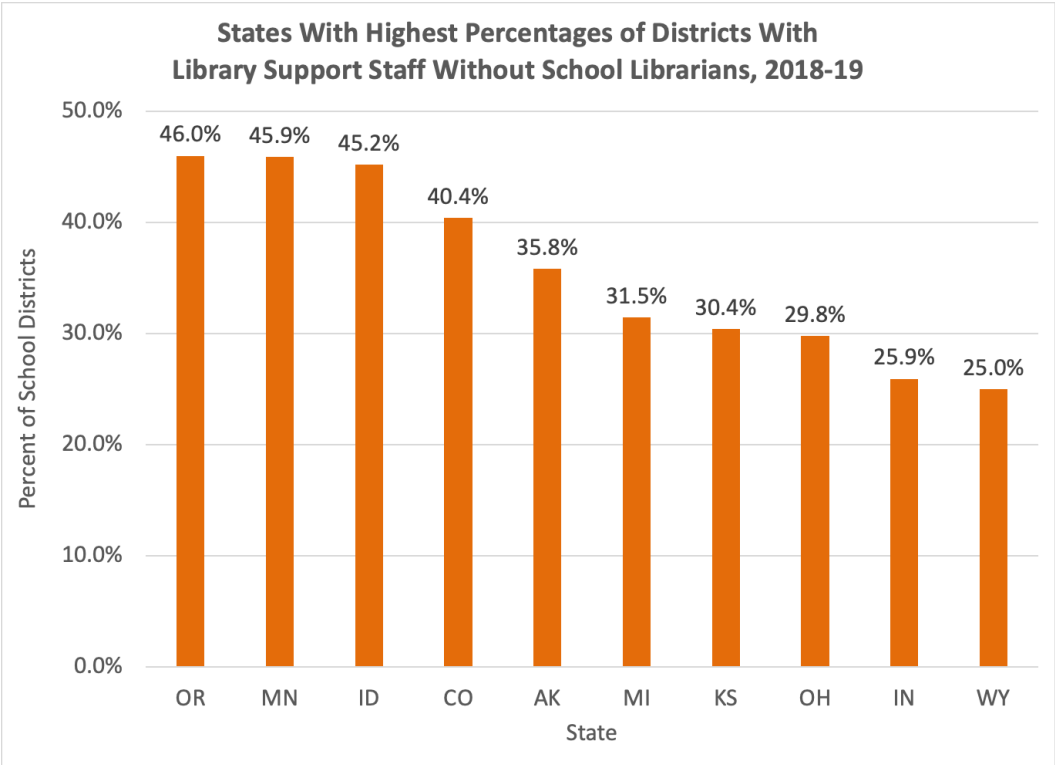


Table 16. Districts With Library Support Staff Without School Librarians by State, 2018-19

State	Local School Districts, 2018-19		
	Total number of districts	Number of districts with library support staff without school librarians	Percent of districts with library support staff without school librarians
AK	53	19	35.8%
AL	137	0	0.0%
AR	234	0	0.0%
AZ	214	30	14.0%
CO	178	72	40.4%
CT	169	12	7.1%
DC	1	0	0.0%
DE	19	1	5.3%
FL	67	3	4.5%
GA	180	1	0.6%
HI	1	0	0.0%
IA	330	3	0.9%
ID	115	52	45.2%
IL	891	0	0.0%
IN	293	76	25.9%
KS	286	87	30.4%
KY	173	1	0.6%
LA	71	2	2.8%
MA	324	41	12.7%
MD	24	1	4.2%
ME	191	26	13.6%
MI	537	169	31.5%
MN	329	151	45.9%
MO	517	2	0.4%
MS	141	0	0.0%
NC	120	1	0.8%
ND	170	9	5.3%
NE	244	0	0.0%
NH	165	7	4.2%
NM	89	17	19.1%
NY	720	27	3.8%
OH	617	184	29.8%
OK	512	57	11.1%
OR	176	81	46.0%
PA	499	13	2.6%
RI	36	0	0.0%
SC	83	1	1.2%
SD	149	36	24.2%
TN	146	0	0.0%
TX	1,022	93	9.1%
VA	132	0	0.0%
VT	147	10	6.8%
WA	297	0	0.0%
WI	418	26	6.2%
WY	48	12	25.0%
State Average	**250**	**29**	**11.5%**
State Median	**173**	**9**	**4.5%**

States for which data not available: CA, MT, NJ, NV, UT, and WV.

Table 17. States Ranked by Percent of Districts With Library Support Staff Without School Librarians, 2018-19

Rank	State	Percent of districts with library support staff without school librarians, 2018-19
1	OR	46.0%
2	MN	45.9%
3	ID	45.2%
4	CO	40.4%
5	AK	35.8%
6	MI	31.5%
7	KS	30.4%
8	OH	29.8%
9	IN	25.9%
10	WY	25.0%
11	SD	24.2%
12	NM	19.1%
13	AZ	14.0%
14	ME	13.6%
15	MA	12.7%
16	OK	11.1%
17	TX	9.1%
18	CT	7.1%
19	VT	6.8%
20	WI	6.2%
21	ND	5.3%
21	DE	5.3%
23	FL	4.5%
24	NH	4.2%
24	MD	4.2%
26	NY	3.8%
27	LA	2.8%
28	PA	2.6%
29	SC	1.2%
30	IA	0.9%
31	NC	0.8%
32	KY	0.6%
32	GA	0.6%
34	MO	0.4%
35	AL	0.0%
35	AR	0.0%
35	DC	0.0%
35	HI	0.0%
35	IL	0.0%
35	MS	0.0%
35	NE	0.0%
35	RI	0.0%
35	TN	0.0%
35	VA	0.0%
35	WA	0.0%
	State Average	**11.5%**
	State Median	**4.5%**

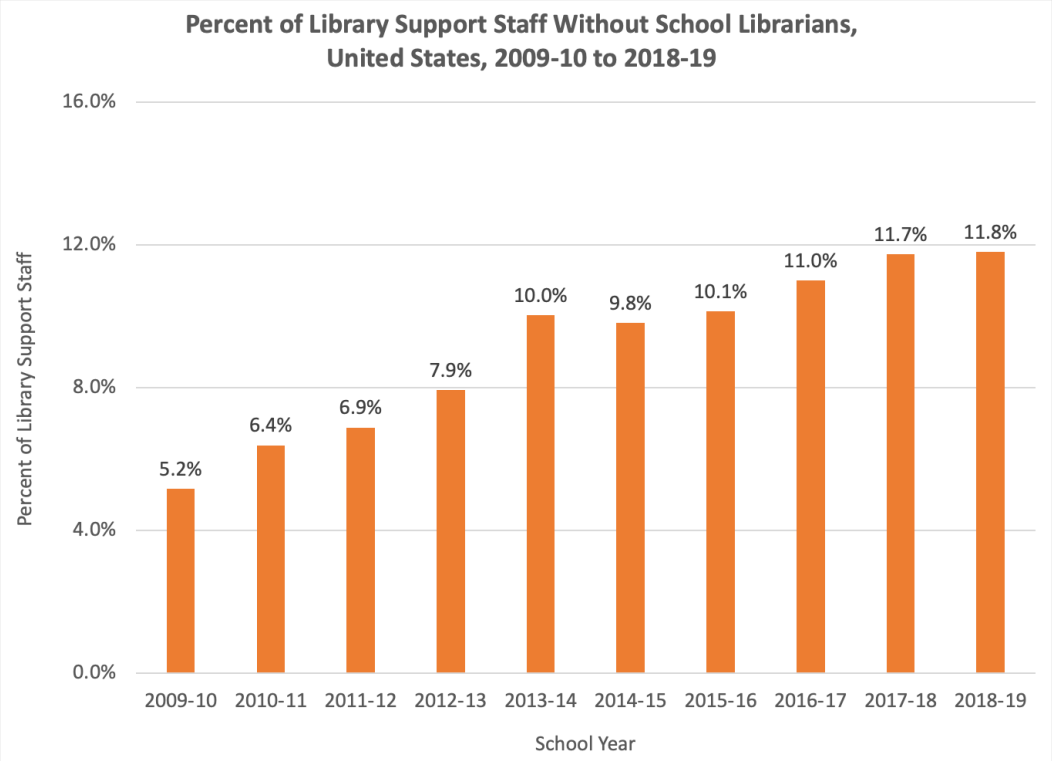
States for which data not available: CA, MT, NJ, NV, UT, and WV.

To what extent have library support staff been working without school librarians?

The growing trend of librarians being replaced by library support staff is even clearer if, instead of examining the trend at the district level, one considers the percentage of library support staff FTEs employed in districts with no school librarians. In 2009-10, only about 1 in 20 (5.2%) library support staff FTEs worked in districts without librarians. By 2015-16, that proportion had increased to 1 out of 10 (10.1%), and, by 2018-19, almost 1 out of 8 (11.8%). (See Chart 34.) Notably, these figures include only library support staff working without librarians in whole districts without librarians. Unknowable, due to the lack of school level data, is the percentage of library support staff working without librarians in districts where some schools have, and some do not have, librarians.

Over the past decade, the percentage of library support staff working without school librarians has more than doubled from 5.2% to 11.8%.

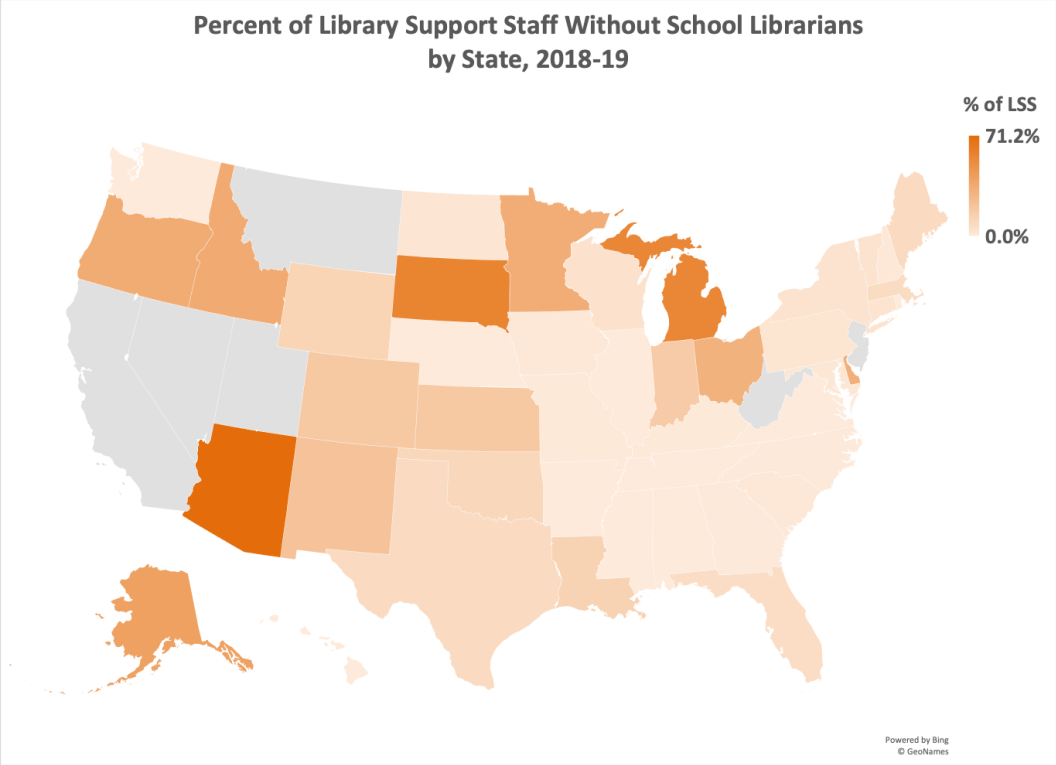
Chart 34



Over the past decade, more and more library support staff have been employed in place of librarians. By 2018-19, this trend was most pronounced in three states--Arizona, Michigan, and South Dakota.

While these year-to-year increases in library support staff replacing librarians are concerning, they are being driven largely by a few states in the West and northern Midwest. (See Map 14.) By 2018-19, in 7 out of 10 library support staff in Arizona (71.2%) were working without the supervision of a librarian. In South Dakota and Michigan, more than half of library support staff (57.8% and 55.9%, respectively) worked without librarians. In Alaska, over 40% of library support staff worked without librarians and about a third of library support staff in four other states in the West and northern Midwest lacked librarian supervision: Idaho (35.5%), Oregon (35.1%), Minnesota (34.5%), and Ohio (31.6%). Notably, Delaware (33.3%) was the only state on the eastern seaboard where a similar pattern prevailed. (See Chart 35 and Tables 18 and 19.)

Map 14



States for which data not available: CA, MT, NJ, NV, UT, and WV.

Chart 35

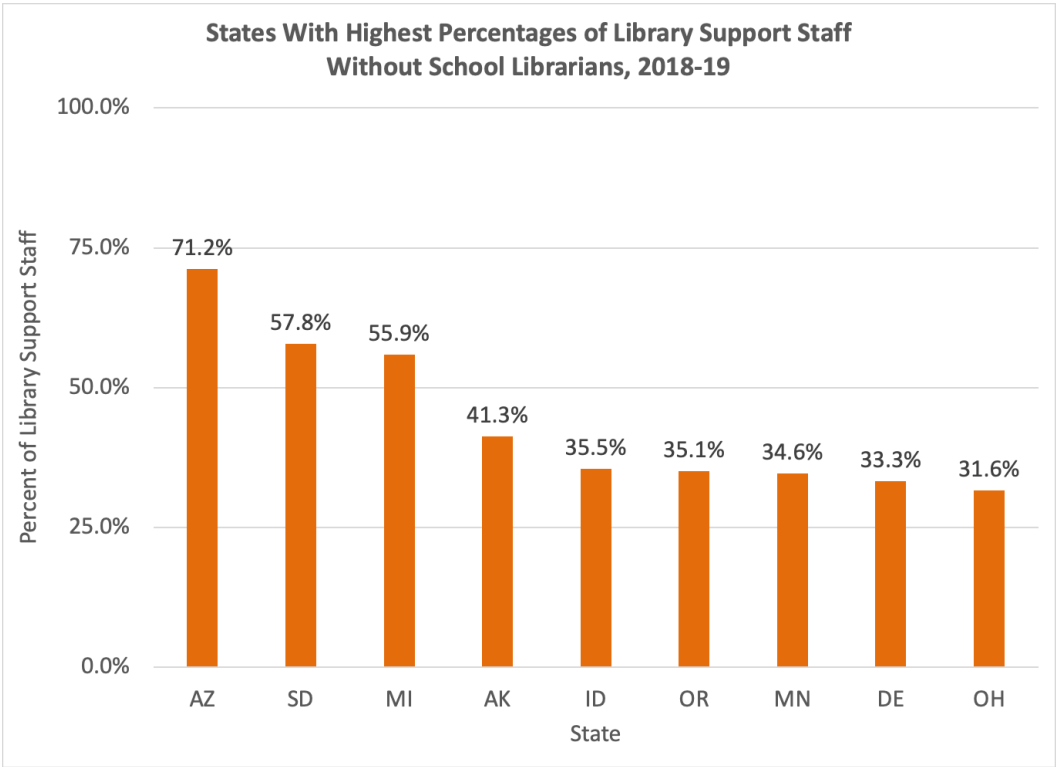


Table 18. Library Support Staff Without School Librarians by State, 2018-19

State	Library Support Staff, 2018-19		
	Total Library Support Staff (FTE)	Library Support Staff Without School Librarians (FTE)	Percent of Library Support Staff Without School Librarians
AK	77.16	31.89	41.3%
AL	188.94	0.00	0.0%
AR	173.31	0.00	0.0%
AZ	69.70	49.61	71.2%
CO	703.01	131.93	18.8%
CT	448.28	14.10	3.1%
DC	3.00	0.00	0.0%
DE	3.00	1.00	33.3%
FL	803.26	57.00	7.1%
GA	1,181.00	4.00	0.3%
HI	53.20	0.00	0.0%
IA	408.33	4.00	1.0%
ID	268.80	95.48	35.5%
IL	955.26	0.00	0.0%
IN	1,122.76	197.70	17.6%
KS	626.40	117.90	18.8%
KY	186.96	1.00	0.5%
LA	158.22	21.00	13.3%
MA	1,332.68	102.46	7.7%
MD	274.09	5.20	1.9%
ME	302.60	26.10	8.6%
MI	742.25	414.65	55.9%
MN	680.86	235.69	34.6%
MO	72.10	0.44	0.6%
MS	81.74	0.00	0.0%
NC	214.24	1.00	0.5%
ND	186.51	5.28	2.8%
NE	382.22	0.00	0.0%
NH	224.20	2.70	1.2%
NM	124.94	27.86	22.3%
NY	1,070.30	39.70	3.7%
OH	1,559.53	493.21	31.6%
OK	682.50	73.30	10.7%
OR	686.51	241.13	35.1%
PA	1,282.00	38.00	3.0%
RI	14.10	0.00	0.0%
SC	497.50	6.00	1.2%
SD	62.95	36.39	57.8%
TN	454.40	0.00	0.0%
TX	1,646.37	141.99	8.6%
VA	1,702.73	0.00	0.0%
VT	113.00	4.19	3.7%
WA	0.00	0.00	0.0%
WI	685.64	29.85	4.4%
WY	351.57	44.57	12.7%
State Average	**507.96**	**59.92**	**12.0%**
State Median	**351.57**	**14.10**	**3.4%**

States for which data not available: CA, MT, NJ, NV, UT, and WV.

Table 19. States Ranked by Percent of Library Support Staff Without School Librarians, 2018-19

Rank	State	Percent of Library Support Staff Without School Librarians, 2018-19
1	AZ	71.2%
2	SD	57.8%
3	MI	55.9%
4	AK	41.3%
5	ID	35.5%
6	OR	35.1%
7	MN	34.6%
8	DE	33.3%
9	OH	31.6%
10	NM	22.3%
11	KS	18.8%
11	CO	18.8%
13	IN	17.6%
14	LA	13.3%
15	WY	12.7%
16	OK	10.7%
17	ME	8.6%
18	TX	8.6%
19	MA	7.7%
20	FL	7.1%
21	WI	4.4%
22	NY	3.7%
23	VT	3.7%
24	CT	3.1%
25	PA	3.0%
26	ND	2.8%
27	MD	1.9%
28	SC	1.2%
29	NH	1.2%
30	IA	1.0%
31	MO	0.6%
32	KY	0.5%
32	NC	0.5%
34	GA	0.3%
35	AL	0.0%
35	AR	0.0%
35	DC	0.0%
35	HI	0.0%
35	IL	0.0%
35	MS	0.0%
35	NE	0.0%
35	RI	0.0%
35	TN	0.0%
35	VA	0.0%
35	WA	0.0%
	State Average	**12.7%**
	State Median	**3.7%**

States for which data not available: CA, MT, NJ, NV, UT, and WV.

Probability of Reinstating School Librarians Once Eliminated

What happened over time in districts that eliminated school librarians? How often have lost librarian FTEs been restored?

To examine whether districts reinstated librarian positions once eliminated, we tracked, from 2015-16 through 2018-19, districts that reported no librarians in 2015-16.

In 2015-16, 3,560 districts nationwide reported no school librarians. (That may have been the district's first year of no librarians, or it may have eliminated its last librarian sometime earlier.)

In 2016-17, of those no-librarian districts, 210 (5.9%) reported something greater than zero for librarians. It may have been one librarian for the entire district, a full-time librarian in every school, or anything in-between.

In 2017-18, of those no-librarian districts, 275 (7.7%) reported something greater than zero for librarians.

In 2018-19, of those no-librarian districts, 336 (9.4%) reported something greater than zero for librarians.

Although this group of "no librarians" districts tracked from 2015-16 through to 2018-19, showed some minimal additions of school librarians over time, the probability of librarian positions being restored was not high. In 2016-17, 94 out of every 100 districts that reported no librarians the year before had none. Even three years later, in 2018-19, 91 out of every 100 districts that reported no librarians in 2015-16 still had none.

Nine out of 10 districts that had eliminated school librarians by 2015-16 had not reinstated them by 2018-19. This indicates that, once lost, a school librarian position was highly unlikely to be restored.

These data suggest that decision-makers for the vast majority of districts that eliminated school librarians did not see a need to reinstate them—at least, within the three subsequent years for which data were examined. These findings raise important questions that SLIDE interviewers will seek to explore with decision-makers from such districts.

- If school librarian cuts are not reversed within three years, what, if any, consequences for their students and teachers do decision-makers believe resulted from those cuts? What, if any, steps were taken to ameliorate those consequences? What, if any, protests were heard from students, their parents, teachers, the community, or local media?

- If, as NCES data indicate, school librarians were cut, who, if anyone, replaced them? Were any of their responsibilities shifted to other particular staff (e.g., reading teachers, educational technology staff) or added to the workloads of all teachers? Or are those responsibilities no longer fulfilled by anyone?

- If school librarians were cut in order to make room for a new staffing model involving a different position or positions, what does that model look like? How were alternative positions staffed and by whom?

The SLIDE interviews will be the first time there has been a large-scale effort to understand the thinking of school leaders regarding such decisions and their consequences. An improved understanding of their thinking would better inform the school library community to identify more promising strategic directions for the profession's future, possibly including new alliances with other types of educators (perhaps newer types) who share wider concerns for what are now perceived as library, learning resources, and teaching-with-technology functions.

District Ratios of Students & Teachers to School Librarian FTEs

Two additional measures of school librarian employment at the district level are the number of students per librarian full-time equivalent (FTE) and the number of teachers per librarian FTE. As noted earlier, the 2018 National Standards of the American Association of School Librarians (AASL) perpetuate the long-held ideals that school librarians should teach information literacy and related skills to students and collaborate on instructional design and delivery with teachers. At the district level—as at national and state levels—the numbers of students and teachers per librarian FTE make fulfilling those charges extraordinarily challenging for most districts and schools.

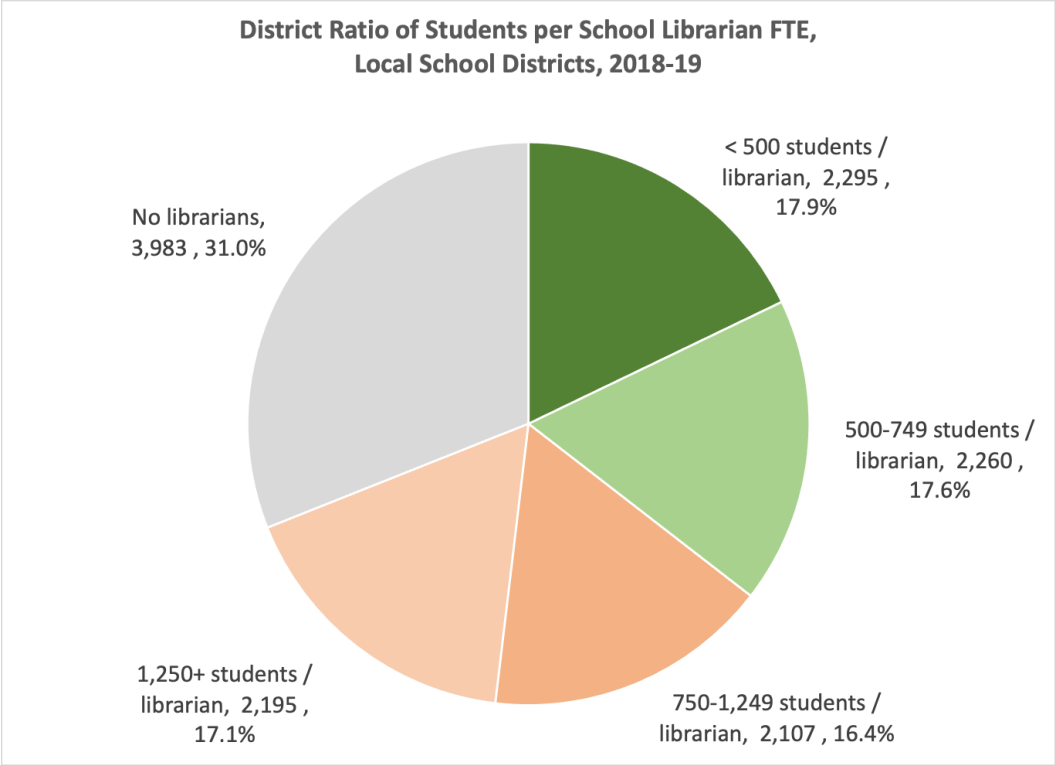
The wide range of these ratios can be attributed very largely to the fact that few schools are staffed with librarians on the basis of how many students or teachers they serve. Generally, individual schools have one full-time librarian, a part-time librarian (ranging from a few hours a week to something approaching full-time), or no librarian. Generally, only the very largest schools have more than one librarian FTE. Consequently, due to the range of building-level enrollments, the ratios of students and teachers per librarian FTE run the gamut.

District Ratio of Students per Librarian FTE

How did the ratio of students per librarian full-time equivalent (FTE) vary among local school districts in 2018-19?

Fewer than 1 out of 5 districts (17.9%) had fewer than 500 students per librarian FTE. Similar proportions of districts had 500 to 749 students per librarian FTE, 750 to 1,249 students per librarian FTE, and 1,250 or more students per librarian FTE. The remaining 3 out of 10 districts (31.0%) had no librarians at all. (See Chart 36.)

Chart 36



In 2018-19, in 1 out of 6 districts, there were 1,250 or more students for every librarian. There were fewer than 500 students per librarian in about the same proportion of districts.

As extreme as this national pattern was, however, the distribution of districts among these students per librarian FTE categories at the state level made for extraordinarily unequal access to school librarians for students. In 2018-19, districts with fewer than 500 students per librarian FTE were in the majority in only five states: Arkansas (70.8%), Vermont (61.2%), Montana (60.5%), New Hampshire (56.4%), and Nebraska (51.6%). At the other extreme, in D.C. and three states—Delaware, Florida, and Utah—there were no districts with fewer than 500 students per librarian FTE. (See Table 20.)

Conversely, in addition to Hawaii's single statewide school district, there were 1,250 or more students per librarian FTE in a majority of districts in 2 states: Utah (58.5%) and Iowa (52.4%). In D.C. and only three states—Arkansas, South Carolina, and Vermont—were there no districts (of those with librarians) that had 1,250 or more students per librarian FTE.

Plainly, the numbers of students per librarian FTE were so low in districts in some states and so high in others that student access to a librarian was highly inequitable. Further evidence of inequity of student access to a librarian was the percentage of districts in each state with no librarians at all. (Also, see Table 20.)

Table 20. District Ratio of Students per School Librarian FTE by State, 2018-19

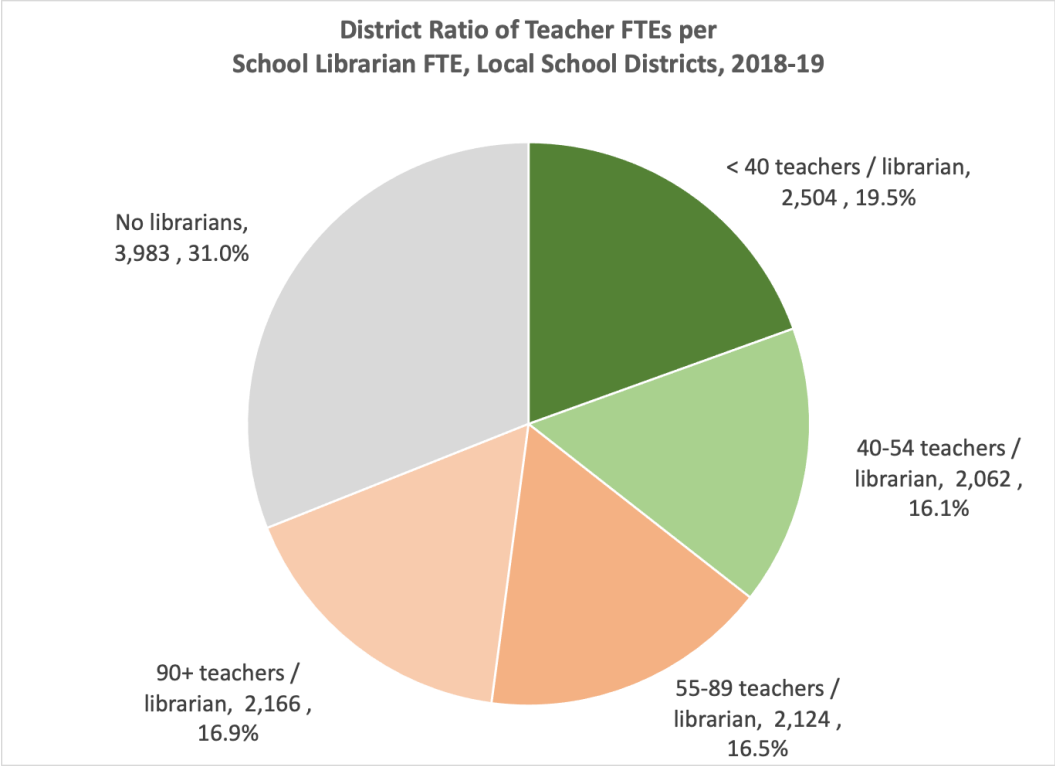
State	Students per school librarian FTE				No librarians	Total
	< 500	500-749	750-1,249	1,250+		
AK	3.8%	7.7%	3.8%	7.7%	76.9%	100.0%
AL	43.8%	46.7%	8.8%	.7%	0.0%	100.0%
AR	70.8%	25.8%	3.0%	0.0%	.4%	100.0%
AZ	2.3%	3.3%	4.2%	21.5%	68.7%	100.0%
CA	.3%	.2%	.5%	5.4%	93.6%	100.0%
CO	10.1%	6.2%	7.3%	20.8%	55.6%	100.0%
CT	36.7%	27.8%	13.6%	10.7%	11.2%	100.0%
DC	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
DE	0.0%	21.1%	15.8%	47.4%	15.8%	100.0%
FL	0.0%	11.9%	56.7%	22.4%	9.0%	100.0%
GA	6.7%	46.7%	40.6%	5.6%	.6%	100.0%
HI	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
IA	7.6%	11.2%	26.4%	52.4%	2.4%	100.0%
ID	1.7%	1.7%	4.3%	25.2%	67.0%	100.0%
IL	23.2%	21.4%	23.2%	31.4%	.9%	100.0%
IN	3.1%	7.8%	17.4%	43.3%	28.3%	100.0%
KS	22.0%	16.8%	14.0%	8.7%	38.5%	100.0%
KY	24.9%	48.0%	19.7%	5.8%	1.7%	100.0%
LA	19.7%	38.0%	14.1%	12.7%	15.5%	100.0%
MA	10.8%	15.7%	14.2%	39.5%	19.8%	100.0%
MD	4.2%	62.5%	16.7%	12.5%	4.2%	100.0%
ME	17.3%	15.7%	17.8%	18.8%	30.4%	100.0%
MI	.7%	1.9%	8.0%	21.0%	68.3%	100.0%
MN	1.5%	5.2%	17.9%	19.5%	55.9%	100.0%
MO	42.0%	28.2%	13.5%	5.0%	11.2%	100.0%
MS	24.1%	51.8%	22.0%	1.4%	.7%	100.0%
MT	60.5%	6.3%	2.0%	1.5%	29.8%	100.0%
NC	16.7%	55.0%	18.3%	5.8%	4.2%	100.0%
ND	47.1%	21.8%	7.1%	5.3%	18.8%	100.0%
NE	51.6%	30.7%	15.2%	2.0%	.4%	100.0%
NH	56.4%	23.0%	7.3%	1.8%	11.5%	100.0%
NJ	13.7%	23.6%	23.9%	18.0%	20.8%	100.0%
NM	3.4%	4.5%	4.5%	27.3%	60.2%	100.0%
NV	5.9%	5.9%	17.6%	41.2%	29.4%	100.0%
NY	28.7%	29.8%	21.7%	12.1%	7.7%	100.0%
OH	3.6%	6.2%	15.7%	33.1%	41.5%	100.0%
OK	27.1%	22.7%	18.9%	7.4%	23.8%	100.0%
OR	.6%	1.1%	6.3%	22.2%	69.9%	100.0%
PA	7.6%	26.3%	42.3%	18.6%	5.2%	100.0%
RI	22.2%	50.0%	19.4%	5.6%	2.8%	100.0%
SC	22.2%	56.8%	19.8%	0.0%	1.2%	100.0%
SD	13.4%	6.7%	7.4%	12.8%	59.7%	100.0%
TN	30.6%	49.3%	14.6%	3.5%	2.1%	100.0%
TX	3.6%	7.9%	22.5%	23.1%	42.9%	100.0%
UT	0.0%	2.4%	4.9%	58.5%	34.1%	100.0%
VA	19.1%	45.0%	20.6%	15.3%	0.0%	100.0%
VT	61.2%	12.9%	5.4%	0.0%	20.4%	100.0%
WA	.7%	8.4%	17.5%	18.9%	54.5%	100.0%
WI	18.2%	21.5%	27.0%	24.2%	9.1%	100.0%
WV	8.8%	20.6%	23.5%	47.1%	0.0%	100.0%
WY	16.7%	12.5%	14.6%	27.1%	29.2%	100.0%
U.S.	**17.9%**	**17.6%**	**16.4%**	**17.1%**	**31.0%**	**100.0%**

District Ratio of Teacher FTEs per Librarian FTE

How did the ratio of teachers per librarian full-time equivalent (FTE) vary among local school districts in 2018-19?

Teacher access to school librarians—and librarian access to teachers—varied across the almost 13,000 local districts for which data were available. Only 1 out of 5 districts (19.5%) had fewer than 40 teachers per librarian. About 1 out of 6 districts (16.1% to 16.9%) had, for each librarian, 40 to 54 teachers, 55 to 89 teachers, or 90 or more teachers. (See Chart 37.)

Chart 37



As for the students per librarian ratio, the district ratio of teachers per librarian FTE ran the gamut among the states. In the best scenario, there were fewer than 40 teachers per librarian FTE in a majority of districts in 7 states—Alabama (89.1% of districts), Arkansas (62.2%), Vermont (58.5%), Kentucky (58.4%), Montana (58.0%), Tennessee (56.9%), and Louisiana (53.5%). D.C. and Delaware were the only jurisdictions reporting no districts with this most desirable ratio. Conversely, states with the most districts with the least desirable ratio—90 or more teachers per librarian FTE—included Hawaii (100.0%), Iowa (54.2%), Utah (46.3%), Massachusetts (42.9%), and West Virginia (41.2%). Alabama, Arkansas, D.C., and South Carolina reported no districts in which the teachers per librarian ratio was this least desirable one. (See Table 21.)

In 2018-19, school librarians in 1 out of 6 districts worked with 90 or more teachers. Librarians in 1 out of 5 districts worked with 40 or fewer teachers.

Clearly, some school librarians face far greater numerical challenges than others when they seek to collaborate with teachers on instructional design and delivery. Some librarians—those serving fewer than 40 teachers—may find it realistic to collaborate with teachers individually. Other librarians—those who have 90 or more teachers to serve—must be far more strategic and efficient for their collaboration with teachers to have

schoolwide impact. This suggests that working with their teacher colleagues in groups by grade level, subject area, or special project may be more effective.

Table 21. District Ratio of Teacher FTEs per Librarian FTE by State, 2018-19

State	Teacher FTEs per school librarian FTE				No school librarians	Total
	< 40	40-54	55-89	90+		
AK	7.7%	7.7%	1.9%	5.8%	76.9%	100.0%
AL	89.1%	8.8%	2.2%	0.0%	0.0%	100.0%
AR	62.2%	31.8%	5.6%	0.0%	.4%	100.0%
AZ	5.1%	2.3%	7.5%	16.4%	68.7%	100.0%
CA	.5%	.3%	.6%	5.0%	93.6%	100.0%
CO	10.7%	5.6%	9.6%	18.5%	55.6%	100.0%
CT	29.6%	31.4%	15.4%	12.4%	11.2%	100.0%
DC	0.0%	100.0%	0.0%	0.0%	0.0%	100.0%
DE	0.0%	21.1%	26.3%	36.8%	15.8%	100.0%
FL	7.5%	32.8%	35.8%	14.9%	9.0%	100.0%
GA	17.2%	47.8%	29.4%	5.0%	.6%	100.0%
HI	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
IA	8.5%	10.6%	24.2%	54.2%	2.4%	100.0%
ID	3.5%	1.7%	4.3%	23.5%	67.0%	100.0%
IL	24.9%	20.3%	25.8%	28.1%	.9%	100.0%
IN	5.8%	10.6%	16.4%	38.9%	28.3%	100.0%
KS	22.4%	15.7%	14.0%	9.4%	38.5%	100.0%
KY	58.4%	25.4%	9.2%	5.2%	1.7%	100.0%
LA	53.5%	12.7%	7.0%	11.3%	15.5%	100.0%
MA	10.2%	9.6%	17.6%	42.9%	19.8%	100.0%
MD	8.3%	58.3%	20.8%	8.3%	4.2%	100.0%
ME	11.5%	16.8%	17.3%	24.1%	30.4%	100.0%
MI	1.1%	5.6%	5.8%	19.2%	68.3%	100.0%
MN	2.1%	7.3%	17.9%	16.7%	55.9%	100.0%
MO	38.5%	24.6%	19.3%	6.4%	11.2%	100.0%
MS	42.6%	40.4%	14.9%	1.4%	.7%	100.0%
MT	58.0%	4.8%	3.3%	4.3%	29.8%	100.0%
NC	42.5%	35.8%	10.8%	6.7%	4.2%	100.0%
ND	39.4%	18.2%	14.1%	9.4%	18.8%	100.0%
NE	38.5%	37.3%	19.3%	4.5%	.4%	100.0%
NH	49.1%	24.2%	10.9%	4.2%	11.5%	100.0%
NJ	9.1%	16.9%	29.3%	23.9%	20.8%	100.0%
NM	3.4%	5.7%	3.4%	27.3%	60.2%	100.0%
NV	5.9%	5.9%	23.5%	35.3%	29.4%	100.0%
NY	19.4%	26.2%	30.4%	16.4%	7.7%	100.0%
OH	7.0%	7.6%	17.3%	26.6%	41.5%	100.0%
OK	36.1%	19.5%	13.7%	6.8%	23.8%	100.0%
OR	2.3%	4.5%	4.0%	19.3%	69.9%	100.0%
PA	9.6%	29.3%	38.5%	17.4%	5.2%	100.0%
RI	25.0%	30.6%	33.3%	8.3%	2.8%	100.0%
SC	45.7%	39.5%	13.6%	0.0%	1.2%	100.0%
SD	12.1%	5.4%	10.7%	12.1%	59.7%	100.0%
TN	56.9%	31.3%	6.9%	2.8%	2.1%	100.0%
TX	2.9%	10.1%	21.1%	23.0%	42.9%	100.0%
UT	2.4%	4.9%	12.2%	46.3%	34.1%	100.0%
VA	29.0%	42.0%	14.5%	14.5%	0.0%	100.0%
VT	58.5%	10.9%	7.5%	2.7%	20.4%	100.0%
WA	7.7%	11.1%	13.1%	13.5%	54.5%	100.0%
WI	19.9%	21.5%	25.8%	23.7%	9.1%	100.0%
WV	14.7%	14.7%	29.4%	41.2%	0.0%	100.0%
WY	16.7%	6.3%	20.8%	27.1%	29.2%	100.0%
U.S.	**19.5%**	**16.1%**	**16.5%**	**16.9%**	**31.0%**	**100.0%**

Future Ready Schools Districts

One of the SLIDE project's national partners is Future Ready Schools (FRS), a network of districts nationwide that encourages innovation in education by providing district and school leaders with tools and resources they need to create better learning environments by adopting evidence-based practices. Due to the success of Future Ready Schools and its allied program, Future Ready Librarians, we wondered if there was any relationship between a district signing the FRS Pledge and the district ratio of librarian FTE per school as well as the probability that FRS districts have been more likely to sustain librarian staffing over time.

The Future Ready Schools Pledge

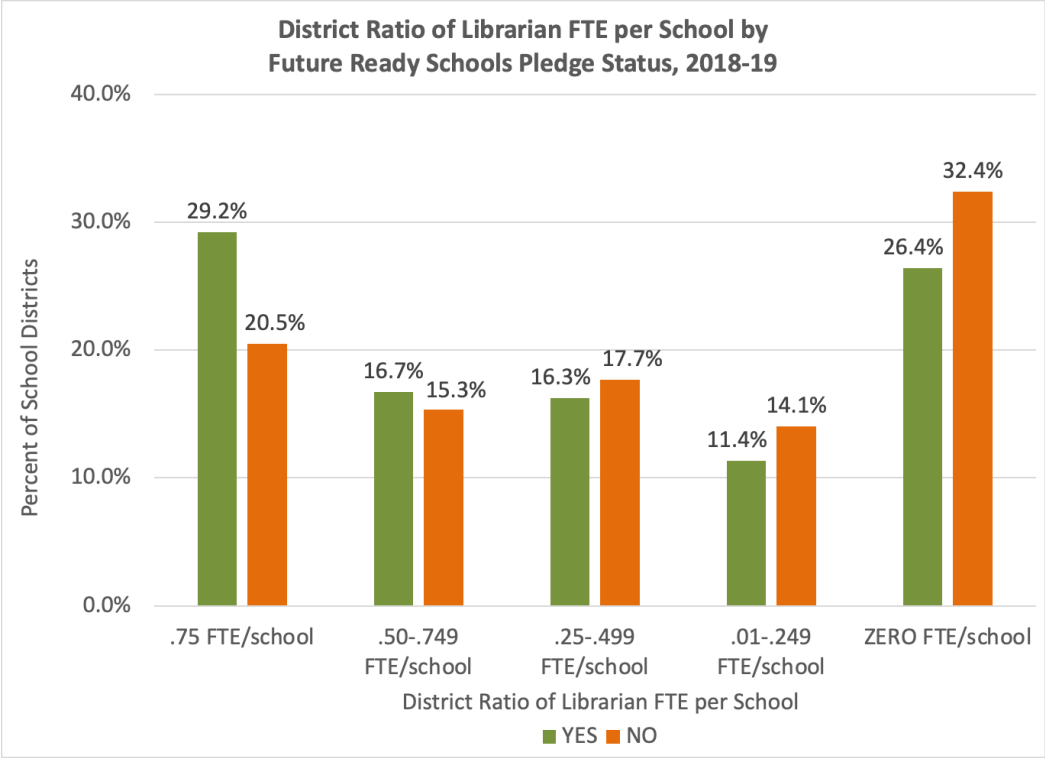
1. ***Foster a culture of collaborative leadership.*** FRS district leadership teams are composed of leaders at all levels who work collaboratively to transform teaching and learning to a more learner-centered approach.
2. ***Provide rigorous academic content for all students to build life skills.*** In an FRS district, curriculum, instruction, and assessments are aligned tightly with and designed to engage students in personalized, technology-empowered, and deeper learning experiences that build life-long learning skills.
3. ***Empower personalized professional learning opportunities.*** FRS districts strive to provide all educators with access to professional learning experiences that are personal and authentic.
4. ***Help schools and families transition to anytime, anywhere learning.*** High-quality, high-speed technology and infrastructure within an FRS school district are essential to advancing authentic, learner-centric experiences.
5. ***Rethink the use of space and time.*** Learner-centric experiences in an FRS district require changes in the way instructional time is allotted and how the learning space is designed.
6. ***Focus on long-term sustainability.*** In FRS districts, the transition to learner-centered, technology-empowered experiences requires strategic short- and long-term budgeting as well as creative leveraging of resources.
7. ***Share and mentor for continuous improvement.*** FRS districts understand that transformation is a process, not an event. Regardless of where FRS districts fall on the implementation continuum, they work diligently toward a system of continuous improvement districtwide, with emphasis on its lowest-performing schools and student subgroups (Future Ready Schools, n.d.).

Is a district participating in Future Ready Schools associated with its level of librarian staffing?

There was a significant, positive relationship between a district being a FRS Pledge signatory and its level of librarian FTE per school. Three out of 10 districts (29.2%) that had signed the FRS Pledge by 2018-19 had .75 or more librarian FTE per school that year. Only 1 out of 5 non-FRS districts (20.5%) had that highest level of librarian staffing. Conversely, almost a third of non-FRS districts (32.4%) reported no librarians for 2018-19, while only a quarter of FRS districts (26.4%) reported an absence of librarians. (See Chart 38 in which yes indicates that a district had signed the FRS Pledge by the 2018-19 school year and no indicates that it had not.)

In 2018-19, districts that had signed the Future Ready Schools (FRS) Pledge were more likely to provide the highest level of librarian staffing (.75 FTE or more per school) and less likely to have no librarians. Between 2015-16 and 2018-19, FRS districts were more likely to have kept librarians and less likely to have been without them.

Chart 38

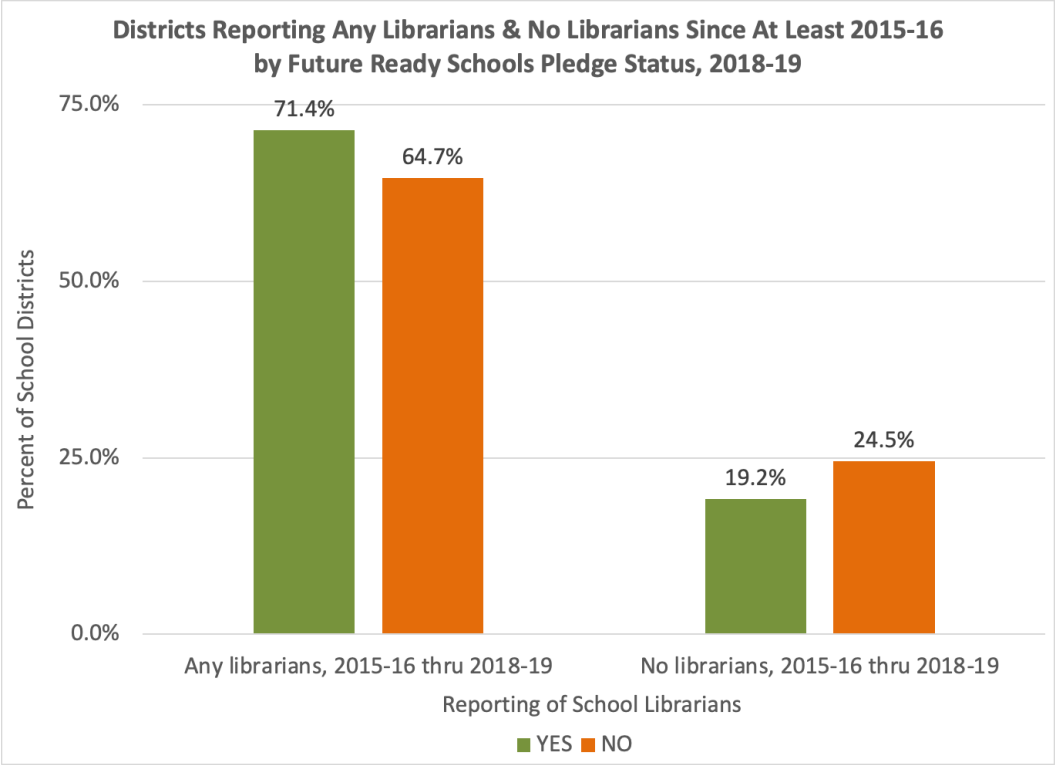


Is a district's FRS status a predictor of whether or not it has sustained librarian staffing over time?

Similarly, Future Ready Schools status was somewhat related to whether or not districts retained librarians between 2015-16 and 2018-19. More than 7 out of 10 FRS districts (71.4%) had librarians consistently during this period, while fewer than two-thirds of non-FRS districts (64.7%) did so. Conversely, fewer than 1 out of 5 FRS districts (19.2%) were without librarians all 4 years, while a quarter of non-FRS districts (24.5%) had no librarians during that time. (See Chart 39.)

These findings should encourage other researchers to investigate in more detail the relationship between Future Ready Schools (FRS) status and not only librarian staffing, but librarian success at teaching students and collaborating with teachers. This data point is a snapshot in time. A district may have been involved in FRS for several years or signed the pledge only recently. If merely being an FRS Pledge signatory—perhaps even a very new one—is related to librarian staffing levels, there must be more to learn about the role of FRS and Future Ready Librarians in activating the potential of librarians to foster school and student success.

Chart 39


Districts Reporting Any Librarians & No Librarians Since At Least 2015-16
by Future Ready Schools Pledge Status, 2018-19
75.0%
50.0%
25.0%
0.0%
Percent of School Districts
71.4%
64.7%
19.2%
24.5%
Any librarians, 2015-16 thru 2018-19
No librarians, 2015-16 thru 2018-19
Reporting of School Librarians
YES
NO

Charter Districts

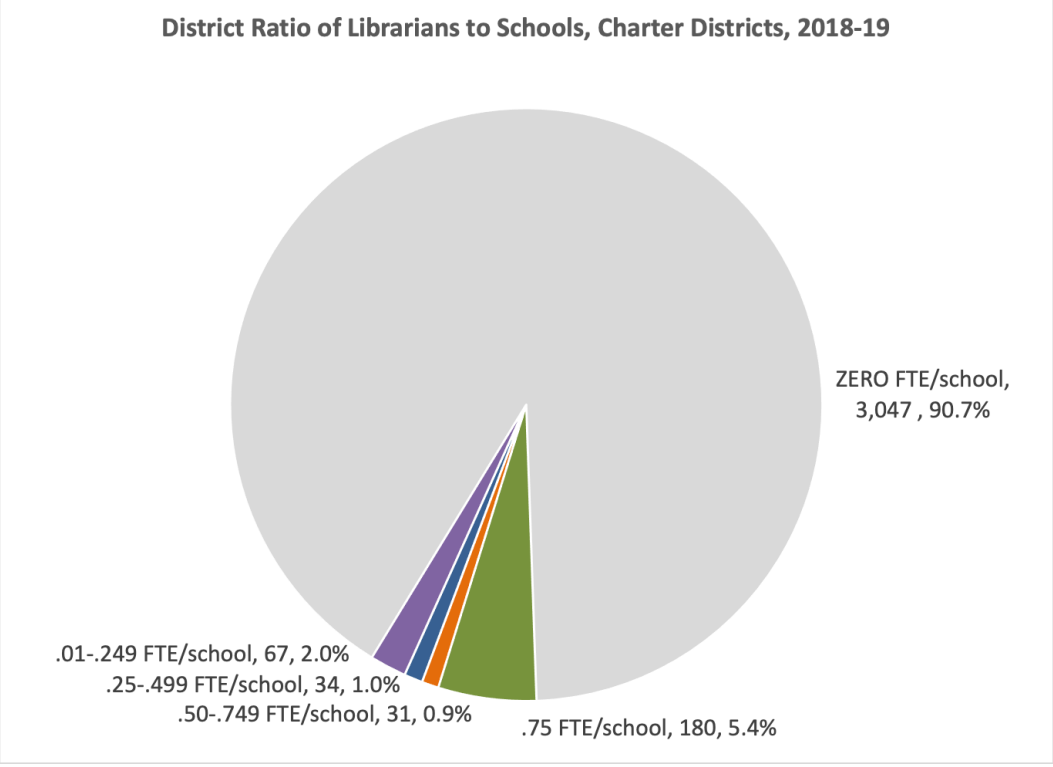
How prevalent were school librarians among U.S. charter schools in 2018-19?

Thirty-four (34) states and D.C. reported having all-charter districts in 2018-19.[12] Nationwide, in 2018-19, there were 4,000 all-charter school districts operating 5,203 charter schools. The total number of school librarians employed in those schools was 321.19 full-time equivalents (FTEs). That amounts to 6 librarian FTEs for every 100 charter schools. In 2018-19, 90.1% of charter districts reported no school librarians. (See Chart 40.)

In 2018-19, 90% of charter districts (excluding charter schools that are part of local school districts) had no school librarians.

The SLIDE project is focusing on regular public schools in local districts. The charter school sector, where school librarians are so rare, should be the focus of a similar study. Because many charter schools pride themselves on innovative organizational structures and staffing models, school library leaders and educators need to gain a better understanding of why most charter school decision-makers eschew having libraries or librarians. What are most of them doing instead? And why don't they seem to miss school libraries and librarians?

Chart 40



[12] The 15 states with no charter districts include: Alaska, Florida, Hawaii, Iowa, Kansas, Kentucky, Maryland, Montana, North Dakota, Nebraska, South Dakota, Tennessee, Vermont, Virginia, and West Virginia. Any charter schools in these states are part of local districts. Due to the lack of school level data about school librarians, this section addresses only independent charter districts, though notably the vast majority of them are, in fact, single independent charter schools.

Conclusion

This report contributes to the school library literature and knowledge base by offering a multi-faceted look at the status of school librarian employment from 2009-10 to 2018-19. Based on this deep analysis of National Center for Education Statistics (NCES) data, the researchers summarize the findings at national, state, and district levels, discuss their implications, and pose questions for future research about existential issues facing school librarianship as a profession.

National Perspective

The most recent decade of data indicates that 1 out of 5 school librarian full-time equivalents (FTEs) was lost in the aftermath of the Great Recession (i.e., since 2009-10). When school boards and school administrators eliminate or reduce librarian positions or replace them with paraprofessionals, the most common rationale is that the school or district can no longer afford to have librarians, especially full-time ones. Generally speaking, this claim cannot be substantiated with the data. During the past decade, when so many school librarian positions were lost, instructional coordinators increased by a third and district and school administrators increased by double-digit percentages. Unquestionably, school leaders must make many thankless decisions about staffing and budgets. Plainly, however, the employment of school librarians is not merely a matter of money. It is a matter of the values and priorities of school decision makers based on their perceptions of the importance of a professionally-trained school librarian in the education of students.

If school librarians (regardless of job title) are to have a long-term future in U.S. public education, the school library community needs to better understand the perceptions, values, and priorities of those who make staffing decisions. For at least a decade, school leaders have been making major decisions about how to staff library, learning resources, and technology services in public education. In many cases, those decisions have been reshaping the future of school librarianship with little input from the profession. That lack of input is a challenge to the school library community to acknowledge more fully seismic changes in public education over recent decades and to engage in dialog with school leaders about the implications of those changes for school librarianship. Initiating such a dialog will likely require a concerted effort by state and national library agency and association leaders, institutions that prepare school librarians, and practitioners themselves.

At the national level, there is a stark gap between the professional standards and job performance expectations of school librarianship and the current realities of the status of school librarian employment. The 2018 American Association of School Librarians (AASL) national standards are predicated on the association's position statement on library staffing, which states that every school, regardless of grade level or enrollment, should have at least one full-time, state-certified librarian. The CCD data clearly illuminates that the existing contingent of school librarians is not equitably distributed across states and school districts. And, even if they were, there would not be enough to provide for even a half-time librarian in every school. This reality means that, for far too many districts and schools, the AASL standards about teaching and working with students and teachers are at best aspirational, at worst, unachievable.

Consequently, the challenge facing the school library community is to recognize and understand these sobering national realities and develop a new consensus about how to calibrate the profession's expectations to real-world circumstances. These data suggest that many school librarians are being placed in the position of over-promising and under-delivering on the expectations of a school librarian as defined by national and state standards and guidelines. The problem is not necessarily a lack of knowledge, will, or personal energy, but simply that the cards are stacked against them. In other words, how can part-time librarians, many with multiple school and teaching assignments, implement the profession's performance standards and expectations? Are school librarian positions more likely to be lost when school leaders detect the discrepancy between their expectations and what incumbent librarians—especially part-time ones—are able to accomplish? And, how are students, teachers, and their schools impacted when districts have no librarians at all? Is some other position or positions filling this gap? Notably, the answers to these questions will vary dramatically from state to state, based on region and specific state conditions, and district to district, based on district characteristics, student demographics, and specific local conditions.

State Perspective

The CCD data examined at the state level highlights regional differences in the inequities of access to school librarians. School librarians were most prevalent in the South, specifically the Southeastern states. Both total librarian full-time equivalents (FTEs) and librarian FTE per school demonstrate this pattern. Likely the simplest explanation for the prevalence of school librarians in the South is that they are legally mandated in 10 of the 16 states in that region, and, in 6 of those 10 states the mandates are still actively enforced.

Generally, school librarians were more prevalent in the eastern half of the country than the western half. The most obvious structural difference between the eastern and western halves of the nation is that states in the eastern half are more likely to have multiple higher education institutions that prepare school librarians, while states in the western half are more likely to have 2, 1, or none. These two data points—state mandates and number of preparing institutions—were the two state-context variables associated with both 2018-19 librarian staffing levels and their change over time. Further research might investigate how the "pipeline" and ease of access to entry-level, certified school librarian positions impacts the number of employed school librarians.

District Perspective

While school librarians were inequitably distributed among the states, it was at the district level that the most concerning inequities appeared. There are concerning differences in access based on several district characteristics and student demographics.

District Ratio of Librarian FTE per School

By 2018-19, 3 out of 10 districts in the U.S. reported no school librarians. Fewer than a quarter of them reported enough librarian FTEs (.75+ FTE per school) to provide a full-time librarian in all or most schools.

Districts with smaller enrollments and those located in rural areas were more likely to have no school librarians. Districts with larger enrollments and those located in suburbs and cities were more likely to have the highest level of librarian staffing—a full-time librarian in all or most schools. Likewise, districts serving more poor students, more minority students, and more English Language Learners were less likely to have librarians, while districts serving fewer such students were more likely to have librarians. Inequities were quite pronounced based on ethnicity. Twice as many majority Hispanic districts reported no librarians compared to majority non-Hispanic districts. While losses of librarian positions are often attributed to inadequate funding, this analysis does not support that explanation. Surprisingly, better-staffed districts were those that spent the most, and the least, per pupil.

Districts with Any and No Librarians, 2015-16 Through 2018-19

What is of even greater concern is how long many districts have been without school librarians. While 3 out of 5 districts employed librarians consistently between 2015-16 and 2018-19, almost a quarter of districts had no librarians from 2015-16 through 2018-19.

Districts without librarians long-term were concentrated in Western states and the northern tier of the Midwest. In 15 states—all in the West or northern Midwest—more than a quarter of districts had no librarians. In 7 of those states, half or more of districts were librarian-less—California, Alaska, Michigan, Oregon, Arizona, and Washington.

Not surprisingly, the district characteristics and student demographics associated with the 2018-19 status of school librarians also apply to districts that either have or haven't had librarians consistently since at least 2015-16. Districts lacking librarians between 2015-16 and 2018-19 tended to be those with smaller enrollments, those located in rural areas, and those serving more students in poverty, more minority students (particularly more Hispanic students), and more English Language Learners. Districts with more consistent librarian staffing during this time interval tended to be those with larger enrollments, those located in suburbs

and cities, and those serving fewer poor students, fewer non-white and fewer Hispanic students, and fewer English Language Learners.

A comparative impact study of districts that have been without librarians long-term and districts that have had a sustained librarian presence would be a substantial contribution to future school library research. Even more could be learned if future studies conducted comparative interviews of teachers in districts with librarians and those without them long-term, or observed students' information-seeking and inquiry-based learning behaviors in those two sets of districts.

Replacement of Librarians with Library Support Staff

This study revealed the extent to which school librarians in some areas are being replaced by paraprofessionals or library support staff. In 2018-19, almost half of librarian-less districts relied on library support staff working alone to operate their libraries. The implications of this staffing model are obvious. Library support staff may suffice to maintain and circulate physical collections and equipment—perhaps even to maintain basic technology access—but, they are not qualified (unless they are under-employed) to select materials for library collections, to collaborate as professional colleagues with classroom teachers, to integrate educational technology resources into instruction, or to teach information literacy and inquiry-based learning skills to students.

This staffing model—districts relying on library support staff without librarians—is a growing, if still isolated, problem, when one examines the percent of districts involved. As of 2018-19, more than 2 out of 5 districts employed library support staff, but no librarians, in Oregon, Minnesota, Idaho, and Colorado. Between 3 and 4 out of 10 districts followed this model in Alaska, Michigan, Kansas, and Ohio. And more than a quarter of districts had library support staff, but no librarians, in Indiana and Wyoming.

When examining the sheer percentage of library support staff who worked without school librarians (rather than the percentage of districts), the highest percentages in 2018-19 were in 9 states: Alaska, Arizona, Delaware, Idaho, Michigan, Minnesota, Ohio, Oregon, and South Dakota. In Arizona, South Dakota, and Michigan, large majorities of library support staff were working without school librarians, while substantial minorities of library support staff were working without librarians in the 6 remaining states. Notably, this analysis was only able to examine situations where an entire district was without librarians. Data limitations prevented examining individual schools with library support staff without librarians. A study comparing what happens in a school library program when there is a librarian and a support staff person versus when there is a library support staff person alone would be illuminating about the price of this staffing model.

Probability of Reinstating School Librarians Once Eliminated

This study also discovered that, in most cases, once librarian positions were eliminated, they were not reinstated. By 2015-16, almost 3 out of 10 local districts had eliminated all school librarians, and, by 2018-19, 9 out of 10 of those districts had not reinstated them. A study of the almost 10% of districts that lost, but later reinstated, librarians could be informative regarding factors contributing to such reinstatements.

Ratios of Students per Librarian and Teachers per Librarian

Even where there are librarians, the ratios of students per librarian and teachers per librarian are daunting for any practitioner attempting to fulfill the profession's standards. In 2018-19, 1 out of 6 districts had a students per librarian ratio of at least 1,250 to 1 and a teacher per librarian ratio of at least 90 to 1. Considering that NCES does not report librarian staffing per school, only per district, many librarians may also have had multiple building and teaching assignments that further increased the number of students and teachers per librarian. A study comparing the teaching and collaboration activities of librarians in districts with the lowest (best) and highest (worst) ratios of students per librarian and teachers per librarian would help to elucidate for school leaders and school library leaders how these ratios impact learning opportunities for K-12 students.

Future Ready Schools Districts

One set of encouraging findings involves one of this project's national partners, Future Ready Schools (FRS)-and may help to explain their involvement with SLIDE. In 2018-19, FRS districts were more likely than non-FRS ones to have the highest level of librarian staffing (.75+ FTE per school), less likely to have no librarians, and-since 2015-16-more likely to have retained them and less likely to have been without them. FRS districts, by definition, seek to be innovators in education. A study comparing school library programs in FRS and non-FRS districts would almost certainly identify proven innovations already tested by FRS districts.

Schools, Students & Teachers Without School Librarians

As a result of school librarian losses, the numbers and percentages of schools, students, and teachers now without librarians-many for several years- presents a clear problem for the future of school librarianship.

- In 2018-19, almost 17,200 schools—almost 1 out of 5—were in a district with no librarians. And of those schools, more than 12,000—almost 1 out of 8—was in a district that had been without librarians since 2015-16.
- The same year, more than 7.5 million students—almost 1 out of 6—were in districts with no librarians. And of those students, more than 4.8 million—1 out of 10—were in a district that had been without librarians since 2015-16.
- Also, that year, more than 385,000 teachers—almost 1 out of 8—was in a district with no librarians. And of those teachers, more than 246,000—1 out of 12—was in a district that had been without librarians since 2015-16.

Notably, these are figures representing whole districts. As NCES does not report school librarian staffing per individual school, it is impossible to know how many more schools, students, and teachers have no librarians or part-time librarians within their schools.

In schools without librarians, those most affected by their absence are still there: students, teachers, and administrators. When attempting to study these districts and schools, the focus must shift toward remaining school staff who might be fulfilling part of the role once played by librarians. Such staff might include educational technology specialists, reading or language arts teachers, or others. When assessing the long-term impact of librarian losses, special attention should be given to types of students most likely to be affected: students in poverty, minority students, and English Language Learners.

The numbers of such students at risk of no access to librarians are sufficiently daunting to demand both study and action.

In 2018-19, 1.9 million students were served by districts with the highest poverty levels (75% or more of students) and no librarians. Those students were 25%—1 out of 4—of all students in districts with no librarians. More than 4.4 million students were served by districts with higher poverty levels (50% or more of students) and no librarians. Those students were 59%—3 out of 5—of all students in districts with no librarians.

The same year, almost 4.8 million students were served by majority non-white districts with no librarians. Those students were 64%—more than 3 out of 5—of all students in districts with no librarians.

Also, that year, almost 3.1 million students were served by majority Hispanic districts with no librarians. Those students were 41%—more than 2 out of 5—of all students in districts with no librarians.

Charter Districts

Nowhere in the public education universe is the existential crisis of school librarianship so advanced as in the charter sector. Because of the lack of school level data about librarian staffing, this study had to focus on charter districts-sometimes multiple charter schools, but the vast majority are single independent charter schools that are not part of regular local school districts. Nine out of 10 charter districts reported no school librarians. Research is needed to learn how these charter districts meet the information and related needs of their students and teachers.

Topics for Future Study

As with most research, this study led researchers to ponder several issues beyond the scope of this project. To recap, the issues that beg for further attention from school library researchers include:

- The gap between the AASL standards and the realities facing school librarians and how to address them;
- How—and to what extent—higher education institutions are preparing school librarians with the leadership skills needed to close the gap between the AASL standards and the realities of public education;
- National and state "pipeline" issues that create challenges in recruiting and hiring school librarians;
- The learning loss of students in districts without librarians, particularly those without them long-term;
- How the FTE level of school librarians relates to job performance, particularly in relationship to numbers of schools, students, and teachers;
- What library support staff are able to accomplish in the absence of school librarians;
- How the information-seeking behavior and inquiry-based learning of students are affected by the presence and absence (especially long term) of school librarians;
- The differential long-term impact of inequitable access to school librarians on at-risk students (students in poverty, minority students, and English Language Learners) and others;
- Why districts that spent the least per pupil had better librarian staffing than districts that spent more;
- How librarians work in more innovative ways when participating in efforts such as Future Ready Schools (FRS); and
- How, in the absence of school librarians, charter schools meet the information needs of their students and teachers.

As part of the three-year SLIDE project, this report offers an historical view of the status of school librarian employment based on the most comprehensive data available for national, state, and district levels from 2009-10 through 2018-19. Over the next two years, interviews in purposefully-selected districts, based on CCD data, will be conducted to further describe and learn how district decision makers choose to staff library, learning resources, and instructional technology for their K- 12 students. The reality check of those interviews will also make it possible to assess the data quality issues described in Appendix A. In addition, a website with interactive tools will permit interested parties to generate tables, charts, and maps of specific data they select. As data on school librarian employment, district characteristics, and student demographics for subsequent years become available, they will be assessed, edited for completeness and accuracy, and added to the website's database (https://libslide.org/data-tools/) The description offered in this report will be updated in whole or in part in a series of articles over the next two years and, ultimately, in the SLIDE project's final report.

Of course, beginning late in the 2019-20 school year and continuing through 2020-21, the COVID-19 pandemic impacted public schools—and school libraries and librarians—dramatically. While the long-term consequences of changes necessitated by the pandemic are uncertain, it seems inevitable that the consequences for school librarian employment will be substantial—one way or another. In some districts, school librarians may have become more essential than ever during and after the pandemic while, in other districts, the pandemic may hasten the loss of school librarians altogether. Serendipitously, the timing of this study—which concludes in late 2023—will make it possible to track at least some of these consequences through the 2022-23 school year.

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Appendix A
Data Quality in State & District Level Reporting on School Librarian Employment

The Common Core of Data (CCD) of the National Center for Education Statistics (NCES) is the only comprehensive source of national, state, and district level data on school librarian employment as well as related district characteristics and student demographics. Theoretically, states and local school districts should report based on the annual instructions and definitions they receive from NCES; state departments of education should vet district reports; and NCES should vet state submissions of state and district data. At every stage, the goal is to maximize accuracy, consistency, and completeness. However, no data collection project is perfect—not even one as long-established and well-organized as this one—so inevitably data quality issues arise.

Missing Data

NCES indicates that CCD state data are complete, missing data being imputed (in other words, estimated on some systematic basis); but no detailed report of those imputation procedures could be found on the NCES website. What was verifiable is that imputations in the state file were done on the basis of state level reports, not including any imputed missing data at the district level. Consequently, it is all but certain that CCD state data were affected negatively by missing data at the district level. In a few cases, a CCD state total for school librarian full-time equivalents (FTEs) was found to be lower than the sum of those FTEs reported by the state's districts. In such cases, the higher sum of FTEs reported by the state's districts replaced the CCD state figure in the SLIDE state dataset.

The most conspicuous defect in the CCD district data on school librarian staffing was missing data—districts for which the number of school librarians in full-time equivalents (FTEs) was not reported. In the simplest terms, the field where that FTE figure should have been entered was left blank or a missing data code was inserted. Notably, there is a big difference between leaving an item blank and entering zero. Zero means there is none of something; a blank means we have been told nothing about that something. The missing data might be zero or it might be something greater than zero. The point, however, is that missing data is an unknown. (See Table 22 for state-by-state reports of the numbers of districts in the SLIDE dataset for which school librarian staffing was, and was not, reported from 2015-16 through 2018-19. This table also reports the numbers and percentages of districts in each state that reported zero, and something greater than zero, for school librarian FTEs.)

Missing data about school librarian FTE for one or more years were addressed for 9 states: Alaska, California, Connecticut, Kansas, New Jersey, Nevada, Utah, Vermont, and Wyoming. The usual alternative source of school librarian FTE data was the state department of education, and direction to that alternative source was usually provided by the SLIDE state intermediary, a representative of the state library association or agency that endorsed the SLIDE project and committed to supporting it by providing just this sort of assistance.

For most purposes, social scientists are not concerned about missing data until it exceeds 10% of cases. By this standard, missing data about school librarian FTEs in 2018-19 for only 5.9% of districts was not a major concern at the national or district level. While missing so little data is not a problem from those perspectives, the percentage of districts for which librarian FTE data were missing at the state level was sometimes problematic. By addressing missing data as described above, we were able to reduce the national missing data percentage to 3.5% for 2018-19.

After missing data were addressed for as many districts as possible, the remaining issue at the state level varied as follows. For 38 states, there was no missing data whatsoever for 2018-19. The same year, data were missing for fewer than 1% of districts for 4 states. For 5 states, data were missing for 1% or more and fewer than 10% of districts. Only 2 states in our 2018-19 dataset still have substantial percentages of missing data: Illinois (48.1% of districts) and West Virginia (38.2%). Those missing cases had a negligible impact on this report's national and district level analyses; but, they should be taken into account when reading the state perspective section of the report.

Illinois is the most noteworthy example of a state with a large number and proportion of districts missing data on school librarian FTE. With about half of the state's districts not reporting about school librarians between 2015-16 and 2018-19, the Illinois data in this report are potentially misleading. In effect, for purposes of this report, it is as if almost half of the state's districts did not exist. What is clear in Table 20 is that, between 2015-16 and 2018-19, suspiciously low numbers of Illinois districts reported zero for school librarian FTEs. In other states that were able to address missing data issues for one or more years, the most frequent value filling such a gap was, in fact, zero. Apparently, many data reporters do not distinguish between reporting zero and leaving an item blank. The Association of Illinois School Library Educators (AISLE) and the Illinois State Library are collaborating to improve state and district reporting of school librarian FTEs to NCES.

While tracking down missing data for districts that did not report to NCES was not a planned or budgeted activity for the SLIDE project, project staff did the extra work necessary to make the SLIDE dataset more accurate and complete, and they continue to work with states seeking to reduce the number of districts for which data about school librarian employment are not being reported. Hopefully, the attention being drawn to these data by this project will motivate federal, state, and district staff involved in the CCD data collection to redouble their own efforts to make this dataset more accurate and complete.

Validity

In statistics, the term validity refers to the extent to which a statistic accurately measures what it claims to measure.

As reported by Lance in 2018, California provides the most dramatic example of a validity issue with the school librarian FTE data from NCES. For 2014-15, California reported 811 librarian FTEs; for 2015-16, it reported only 105. An investigation in 2018 revealed that the apparent decrease of 706 FTEs in a single year was, in fact, a statistical artifact. To protect librarians from budget cuts, starting in 2015-16, they were reported by many districts as teachers instead of as librarians. While efforts are underway to reverse that change, it is a validity issue that afflicts much of the California data from 2015-16 to at least 2018-19. Fortunately, the librarians now counted as teachers have "library" identified as their teaching assignment; so, it was possible to reassign those FTEs from teacher to librarian. While this was a conspicuous and dramatic example of a validity problem in the NCES data, it quite likely is not the only one. It is possible that something like this strategy may have been employed in other districts in isolated cases, rather than on a statewide basis.

When the SLIDE interviewers speak to school leaders from districts that appear to have lost librarians, one of their first questions will be to confirm that that actually happened. If the school librarian's job was modified sufficiently, even to the extent of the job title being changed (e.g., educational technology and information literacy coordinator), that FTE may have been reported to NCES as an instructional coordinator or not at all.

Reliability

In statistics, the term reliability refers to the consistency with which a statistic is reported from place to place or time to time. For selected states and districts, there is the potential for such inconsistencies. This issue also overlaps with the missing data issue. As data reporters change, how numbers for that district change can be a problem. If one data reporter leaves librarian FTE blank, while their predecessor entered a zero the previous year, there is a reliability problem.

The California validity example is also an example of a reliability problem. The definition of a school librarian was interpreted in one way in 2014-15 and in another way in subsequent years, thereby introducing inconsistency in the data from year to year. Another likely example of a reliability issue would be if one district in California reported a librarian as a teacher while a neighboring district reported a librarian as a librarian. In that case, the definition would be being applied inconsistently from place to place.

Outdated & Inadequate Definition

Finally, perhaps the most vexing data quality issue for the SLIDE project—and for most CCD school librarian data users—is that the data are being collected on the basis of an outdated and inadequate definition. (See Appendix B.) The definition is dated because it was written probably no later than 2000, which means that the responsibilities mentioned in the definition are not current. There is no mention, for instance, of collaboration with teachers on instructional design and delivery, computers, databases, educational technology, information literacy, inquiry-based learning, media/news literacy, or the like. Not only is the definition outdated, but it also lacks what, to the school library community, is an essential element—mention of state certification as a school librarian. The omission of a reference to state certification is understandable; CCD makes no reference to certification in any of its staffing definitions. In this case, however, it means that to many in the school library community, a district's FTE count is perceived as "incorrect," because—even though it meets the CCD definition—it does not reflect state certification as a requirement.

Notably, a state may report to CCD only state-certified librarians, because of the way the data are collected at the state level. So, this possibility could also introduce validity and reliability issues when comparing data from state to state.

A closely related issue is the possibility that school librarian FTE counts may be affected at the district level by the perception that the job title "school librarian" itself is an outdated one that conjures up stereotypes school leaders wish to avoid. In such cases, the job may be given a different title and not reported to NCES as a school librarian.

It is important to acknowledge that NCES's data on school librarian staffing are, on balance, of very high quality. The completeness of the data—data for all districts—reported by most states is impressive. While the definition of a school librarian is outdated and inadequate, it has been in place, unaltered, for several decades; so, barring a change of district or state personnel and their being inadequately trained to report consistently, there is every reason to expect the FTE counts to be reasonably accurate.

It is easy to criticize any data collection effort pursued on such a comprehensive scale. Local districts report data that are aggregated at the state level, and states report data that are aggregated at the national level. The burden of proof for such criticism, though, lies with the critic, and, in most states, anyone who wishes to challenge the NCES data is effectively unarmed—there is no ongoing, independent data collection effort producing competing data of the sort needed to question the accuracy of NCES's CCD data.

Post-Script About 2019-20 Data

In April 2021, the National Center for Education Statistics (NCES) released 2019-20 Common Core of Data (CCD) counts of school librarians in full-time equivalents (FTEs) by state and district. This dataset was released too late to be used for this analysis. The principal reason it was too late is because the dataset is not usable for SLIDE purposes as released, due to missing data and mis-reported data requiring remediation.

Table 22. School Librarian Reporting Status in the SLIDE District Dataset by State, 2015-16 to 2018-19

State		2015-16 School Librarian Reporting Status				2016-17 School Librarian Reporting Status				2017-18 School Librarian Reporting Status				2018-19 School Librarian Reporting Status			
		Greater than zero	Zero	Missing	Total	Greater than zero	Zero	Missing	Total	Greater than zero	Zero	Missing	Total	Greater than zero	Zero	Missing	Total
AK	N	14	39	0	53	13	40	0	53	14	39	0	53	12	40	1	53
	%	26.4%	73.6%	0.0%	100.0%	24.5%	75.5%	0.0%	100.0%	26.4%	73.6%	0.0%	100.0%	22.6%	75.5%	1.9%	100.0%
AL	N	136	0	1	137	102	0	35	137	137	0	0	137	137	0	0	137
	%	99.3%	0.0%	.7%	100.0%	74.5%	0.0%	25.5%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
AR	N	232	1	0	233	233	1	0	234	233	1	0	234	232	1	1	234
	%	99.6%	.4%	0.0%	100.0%	99.6%	.4%	0.0%	100.0%	99.6%	.4%	0.0%	100.0%	99.1%	.4%	.4%	100.0%
AZ	N	75	139	0	214	71	141	2	214	67	142	5	214	67	147	0	214
	%	35.0%	65.0%	0.0%	100.0%	33.2%	65.9%	.9%	100.0%	31.3%	66.4%	2.3%	100.0%	31.3%	68.7%	0.0%	100.0%
CA	N	101	881	0	982	136	845	2	983	65	918	0	983	63	920	0	983
	%	10.3%	89.7%	0.0%	100.0%	13.8%	86.0%	.2%	100.0%	6.6%	93.4%	0.0%	100.0%	6.4%	93.6%	0.0%	100.0%
CO	N	84	94	0	178	85	93	0	178	80	98	0	178	79	99	0	178
	%	47.2%	52.8%	0.0%	100.0%	47.8%	52.2%	0.0%	100.0%	44.9%	55.1%	0.0%	100.0%	44.4%	55.6%	0.0%	100.0%
CT	N	157	12	0	169	152	17	0	169	151	18	0	169	150	19	0	169
	%	92.9%	7.1%	0.0%	100.0%	89.9%	10.1%	0.0%	100.0%	89.3%	10.7%	0.0%	100.0%	88.8%	11.2%	0.0%	100.0%
DC	N	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1
	%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
DE	N	18	1	0	19	18	1	0	19	16	3	0	19	16	3	0	19
	%	94.7%	5.3%	0.0%	100.0%	94.7%	5.3%	0.0%	100.0%	84.2%	15.8%	0.0%	100.0%	84.2%	15.8%	0.0%	100.0%
FL	N	64	3	0	67	63	4	0	67	62	5	0	67	61	6	0	67
	%	95.5%	4.5%	0.0%	100.0%	94.0%	6.0%	0.0%	100.0%	92.5%	7.5%	0.0%	100.0%	91.0%	9.0%	0.0%	100.0%
GA	N	180	0	0	180	179	1	0	180	180	0	0	180	179	1	0	180
	%	100.0%	0.0%	0.0%	100.0%	99.4%	.6%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	99.4%	.6%	0.0%	100.0%
HI	N	1	0	0	1	1	0	0	1	1	0	0	1	1	0	0	1
	%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%
IA	N	326	4	0	330	327	3	0	330	328	2	0	330	322	8	0	330
	%	98.8%	1.2%	0.0%	100.0%	99.1%	.9%	0.0%	100.0%	99.4%	.6%	0.0%	100.0%	97.6%	2.4%	0.0%	100.0%
ID	N	45	70	0	115	44	71	0	115	41	74	0	115	38	77	0	115
	%	39.1%	60.9%	0.0%	100.0%	38.3%	61.7%	0.0%	100.0%	35.7%	64.3%	0.0%	100.0%	33.0%	67.0%	0.0%	100.0%
IL	N	503	0	386	889	472	0	417	889	471	1	419	891	458	4	429	891
	%	56.6%	0.0%	43.4%	100.0%	53.1%	0.0%	46.9%	100.0%	52.9%	.1%	47.0%	100.0%	51.4%	.4%	48.1%	100.0%
IN	N	226	67	0	293	218	75	0	293	216	76	1	293	210	83	0	293
	%	77.1%	22.9%	0.0%	100.0%	74.4%	25.6%	0.0%	100.0%	73.7%	25.9%	.3%	100.0%	71.7%	28.3%	0.0%	100.0%

Table 22. School Librarian Reporting Status in the SLIDE District Dataset by State, 2015-16 to 2018-19—continued

State		2015-16 School Librarian Reporting Status				2016-17 School Librarian Reporting Status				2017-18 School Librarian Reporting Status				2018-19 School Librarian Reporting Status			
		Greater than zero	Zero	Missing	Total	Greater than zero	Zero	Missing	Total	Greater than zero	Zero	Missing	Total	Greater than zero	Zero	Missing	Total
KS	N	186	100	0	286	176	110	0	286	182	104	0	286	176	110	0	286
	%	65.0%	35.0%	0.0%	100.0%	61.5%	38.5%	0.0%	100.0%	63.6%	36.4%	0.0%	100.0%	61.5%	38.5%	0.0%	100.0%
KY	N	172	1	0	173	172	1	0	173	171	2	0	173	170	3	0	173
	%	99.4%	.6%	0.0%	100.0%	99.4%	.6%	0.0%	100.0%	98.8%	1.2%	0.0%	100.0%	98.3%	1.7%	0.0%	100.0%
LA	N	66	3	1	70	65	5	0	70	63	7	0	70	60	11	0	71
	%	94.3%	4.3%	1.4%	100.0%	92.9%	7.1%	0.0%	100.0%	90.0%	10.0%	0.0%	100.0%	84.5%	15.5%	0.0%	100.0%
MA	N	267	57	0	324	266	58	0	324	266	58	0	324	260	64	0	324
	%	82.4%	17.6%	0.0%	100.0%	82.1%	17.9%	0.0%	100.0%	82.1%	17.9%	0.0%	100.0%	80.2%	19.8%	0.0%	100.0%
MD	N	24	0	0	24	24	0	0	24	22	2	0	24	23	1	0	24
	%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	91.7%	8.3%	0.0%	100.0%	95.8%	4.2%	0.0%	100.0%
ME	N	133	55	0	188	129	59	0	188	127	62	0	189	133	58	0	191
	%	70.7%	29.3%	0.0%	100.0%	68.6%	31.4%	0.0%	100.0%	67.2%	32.8%	0.0%	100.0%	69.6%	30.4%	0.0%	100.0%
MI	N	148	388	0	536	142	395	0	537	141	396	0	537	170	367	0	537
	%	27.6%	72.4%	0.0%	100.0%	26.4%	73.6%	0.0%	100.0%	26.3%	73.7%	0.0%	100.0%	31.7%	68.3%	0.0%	100.0%
MN	N	172	157	0	329	162	167	0	329	156	173	0	329	145	184	0	329
	%	52.3%	47.7%	0.0%	100.0%	49.2%	50.8%	0.0%	100.0%	47.4%	52.6%	0.0%	100.0%	44.1%	55.9%	0.0%	100.0%
MO	N	464	53	0	517	464	53	0	517	470	47	0	517	459	58	0	517
	%	89.7%	10.3%	0.0%	100.0%	89.7%	10.3%	0.0%	100.0%	90.9%	9.1%	0.0%	100.0%	88.8%	11.2%	0.0%	100.0%
MS	N	139	0	0	139	139	0	0	139	138	1	0	139	140	1	0	141
	%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	99.3%	.7%	0.0%	100.0%	99.3%	.7%	0.0%	100.0%
MT	N	295	104	0	399	290	106	1	397	291	105	1	397	281	119	1	401
	%	73.9%	26.1%	0.0%	100.0%	73.0%	26.7%	.3%	100.0%	73.3%	26.4%	.3%	100.0%	70.1%	29.7%	.2%	100.0%
NC	N	113	2	0	115	114	1	0	115	113	4	0	117	115	5	0	120
	%	98.3%	1.7%	0.0%	100.0%	99.1%	.9%	0.0%	100.0%	96.6%	3.4%	0.0%	100.0%	95.8%	4.2%	0.0%	100.0%
ND	N	143	27	0	170	142	28	0	170	145	25	0	170	138	32	0	170
	%	84.1%	15.9%	0.0%	100.0%	83.5%	16.5%	0.0%	100.0%	85.3%	14.7%	0.0%	100.0%	81.2%	18.8%	0.0%	100.0%
NE	N	241	2	0	243	243	0	0	243	244	0	0	244	243	1	0	244
	%	99.2%	.8%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	99.6%	.4%	0.0%	100.0%
NH	N	140	24	0	164	144	21	0	165	146	19	0	165	146	19	0	165
	%	85.4%	14.6%	0.0%	100.0%	87.3%	12.7%	0.0%	100.0%	88.5%	11.5%	0.0%	100.0%	88.5%	11.5%	0.0%	100.0%
NJ	N	423	0	119	542	426	0	116	542	425	0	117	542	427	112	3	542
	%	78.0%	0.0%	22.0%	100.0%	78.6%	0.0%	21.4%	100.0%	78.4%	0.0%	21.6%	100.0%	78.8%	20.7%	.6%	100.0%
NM	N	44	45	0	89	41	48	0	89	36	53	0	89	35	53	1	89
	%	49.4%	50.6%	0.0%	100.0%	46.1%	53.9%	0.0%	100.0%	40.4%	59.6%	0.0%	100.0%	39.3%	59.6%	1.1%	100.0%

Table 22. School Librarian Reporting Status in the SLIDE District Dataset by State, 2015-16 to 2018-19--continued

State		2015-16 School Librarian Reporting Status				2016-17 School Librarian Reporting Status				2017-18 School Librarian Reporting Status				2018-19 School Librarian Reporting Status			
		Greater than zero	Zero	Missing	Total	Greater than zero	Zero	Missing	Total	Greater than zero	Zero	Missing	Total	Greater than zero	Zero	Missing	Total
NV	N	10	4	4	18	9	5	4	18	10	5	3	18	12	5	1	18
	%	55.6%	22.2%	22.2%	100.0%	50.0%	27.8%	22.2%	100.0%	55.6%	27.8%	16.7%	100.0%	66.7%	27.8%	5.6%	100.0%
NY	N	646	74	0	720	645	75	0	720	655	65	0	720	663	55	2	720
	%	89.7%	10.3%	0.0%	100.0%	89.6%	10.4%	0.0%	100.0%	91.0%	9.0%	0.0%	100.0%	92.1%	7.6%	.3%	100.0%
OH	N	390	227	0	617	380	237	0	617	374	243	0	617	361	256	0	617
	%	63.2%	36.8%	0.0%	100.0%	61.6%	38.4%	0.0%	100.0%	60.6%	39.4%	0.0%	100.0%	58.5%	41.5%	0.0%	100.0%
OK	N	457	52	0	509	416	93	0	509	398	113	0	511	390	122	0	512
	%	89.8%	10.2%	0.0%	100.0%	81.7%	18.3%	0.0%	100.0%	77.9%	22.1%	0.0%	100.0%	76.2%	23.8%	0.0%	100.0%
OR	N	58	118	0	176	51	125	0	176	54	122	0	176	53	123	0	176
	%	33.0%	67.0%	0.0%	100.0%	29.0%	71.0%	0.0%	100.0%	30.7%	69.3%	0.0%	100.0%	30.1%	69.9%	0.0%	100.0%
PA	N	480	19	0	499	479	20	0	499	475	24	0	499	473	26	0	499
	%	96.2%	3.8%	0.0%	100.0%	96.0%	4.0%	0.0%	100.0%	95.2%	4.8%	0.0%	100.0%	94.8%	5.2%	0.0%	100.0%
RI	N	34	2	0	36	35	1	0	36	36	0	0	36	35	1	0	36
	%	94.4%	5.6%	0.0%	100.0%	97.2%	2.8%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	97.2%	2.8%	0.0%	100.0%
SC	N	81	0	2	83	80	1	2	83	80	1	2	83	80	1	2	83
	%	97.6%	0.0%	2.4%	100.0%	96.4%	1.2%	2.4%	100.0%	96.4%	1.2%	2.4%	100.0%	96.4%	1.2%	2.4%	100.0%
SD	N	65	84	0	149	67	82	0	149	61	88	0	149	60	89	0	149
	%	43.6%	56.4%	0.0%	100.0%	45.0%	55.0%	0.0%	100.0%	40.9%	59.1%	0.0%	100.0%	40.3%	59.7%	0.0%	100.0%
TN	N	142	1	3	146	140	3	3	146	141	3	2	146	141	3	2	146
	%	97.3%	.7%	2.1%	100.0%	95.9%	2.1%	2.1%	100.0%	96.6%	2.1%	1.4%	100.0%	96.6%	2.1%	1.4%	100.0%
TX	N	609	412	1	1022	602	420	0	1022	601	421	0	1022	584	438	0	1022
	%	59.6%	40.3%	.1%	100.0%	58.9%	41.1%	0.0%	100.0%	58.8%	41.2%	0.0%	100.0%	57.1%	42.9%	0.0%	100.0%
UT	N	29	12	0	41	28	13	0	41	28	13	0	41	27	14	0	41
	%	70.7%	29.3%	0.0%	100.0%	68.3%	31.7%	0.0%	100.0%	68.3%	31.7%	0.0%	100.0%	65.9%	34.1%	0.0%	100.0%
VA	N	130	0	2	132	132	0	0	132	132	0	0	132	131	0	1	132
	%	98.5%	0.0%	1.5%	100.0%	100.0%	0.0%	0.0%	100.0%	100.0%	0.0%	0.0%	100.0%	99.2%	0.0%	.8%	100.0%
VT	N	95	18	0	113	98	19	0	117	100	26	0	126	117	30	0	147
	%	84.1%	15.9%	0.0%	100.0%	83.8%	16.2%	0.0%	100.0%	79.4%	20.6%	0.0%	100.0%	79.6%	20.4%	0.0%	100.0%
WA	N	139	152	6	297	138	159	0	297	135	162	0	297	135	162	0	297
	%	46.8%	51.2%	2.0%	100.0%	46.5%	53.5%	0.0%	100.0%	45.5%	54.5%	0.0%	100.0%	45.5%	54.5%	0.0%	100.0%
WI	N	379	36	0	415	383	33	0	416	384	33	0	417	380	38	0	418
	%	91.3%	8.7%	0.0%	100.0%	92.1%	7.9%	0.0%	100.0%	92.1%	7.9%	0.0%	100.0%	90.9%	9.1%	0.0%	100.0%
WV	N	44	11	0	55	44	11	0	55	34	21	0	55	34	0	21	55
	%	80.0%	20.0%	0.0%	100.0%	80.0%	20.0%	0.0%	100.0%	61.8%	38.2%	0.0%	100.0%	61.8%	0.0%	38.2%	100.0%

Table 22. School Librarian Reporting Status in the SLIDE District Dataset by State, 2015-16 to 2018-19--continued

State		2015-16 School Librarian Reporting Status				2016-17 School Librarian Reporting Status				2017-18 School Librarian Reporting Status				2018-19 School Librarian Reporting Status			
		Greater than zero	Zero	Missing	Total	Greater than zero	Zero	Missing	Total	Greater than zero	Zero	Missing	Total	Greater than zero	Zero	Missing	Total
WY	N	39	9	0	48	38	10	0	48	36	12	0	48	34	14	0	48
	%	81.3%	18.8%	0.0%	100.0%	79.2%	20.8%	0.0%	100.0%	75.0%	25.0%	0.0%	100.0%	70.8%	29.2%	0.0%	100.0%
U.S. Total	**N**	**9,160**	**3,560**	**525**	**13,245**	**9,019**	**3,651**	**582**	**13,252**	**8,933**	**3,787**	**550**	**13,270**	**8,857**	**3,983**	**465**	**13,305**
	%	**69.2%**	**26.9%**	**4.0%**	**100.0%**	**68.1%**	**27.6%**	**4.4%**	**100.0%**	**67.3%**	**28.5%**	**4.1%**	**100.0%**	**66.6%**	**29.9%**	**3.5%**	**100.0%**

Appendix B
Glossary

Unless otherwise footnoted, the source for quoted definitions in this glossary is the CCD *School and District Glossary* of the National Center for Education Statistics (NCES), retrieved on April 7, 2021, from https://nces.ed.gov/ccd/commonfiles/glossary.asp.

Agency Type
SLIDE is utilizing data for 3 of NCES's agency types. Type 1 districts are "regular local school districts." They are "locally governed" and "responsible for providing free public elementary or secondary education." A type 2 district is the same as a type 1, except that it shares a superintendent and administrative services with one or more other districts. This project is also utilizing data for type 7 districts, charter agencies in which all associated schools are charter schools. The remaining district types for which NCES collects data are supervisory unions, regional education service agencies, state- and federal-operated agencies, and other education agencies. These district types are excluded from the study.

American Association of School Librarians (AASL)
AASL is the division of the American Library Association that represents school librarians and promulgated *National Standards for Learners, School Librarians, and School Libraries* (2018).

Average Class Size
"The number of students a teacher faces during a period of instruction—typically referred to as class size—is a measure of pupil load. … Because the indicator measures *average* class size, it does not reflect whether schools choose to have different-sized classes for different subjects or for different types of students" (NCES, *Indicator 21*).

Charter Districts
Charter districts are composed entirely of charter schools. Unlike many charter schools, they are not affiliated with local school districts. For SLIDE purposes, charter districts were analyzed separately. Notably, the vast majority of charter "districts" are, in fact, individual charter schools.

Common Core of Data (CCD)
"CCD is the U.S. Department of Education's primary database on public elementary and secondary education in the United States. CCD is a comprehensive, annual, national database of all public elementary and secondary schools and school districts" (NCES, *Common core*). CCD first reported data for the 1986-87 school year; but, school librarians were not included in its staffing data until the 1999-2000 school year.

District Administrators
"Chief executive officers of education agencies, including superintendents, deputies, and assistant superintendents; other persons with districtwide responsibilities, e.g., business managers, administrative assistants, and professional instructional support staff. Excludes supervisors of instructional or student support staff."

District Ratio of Librarians per School
Because CCD does not report School Librarians at the school level, SLIDE approximates such data by calculating the district ratio of librarians per school. For each district, CCD reports the number of School Librarians in full-time equivalents (FTEs) as well as the number of schools operated by the district. CCD reports the total number of schools operated by each district as well as its number of charter schools. For this district ratio, the number of charter schools is subtracted from the total number of schools to account for the fact that 9 out of 10 charter districts report no School Librarians.

District Ratio of Students per Librarian
Because CCD does not report School Librarians at the school level, it is impossible to calculate a students-per-librarian ratio at that level. Instead, the district level version of this ratio is the most granular one possible with NCES data.

District Ratio of Teachers per Librarian
Because CCD does not report School Librarians at the school level, it is impossible to calculate a teachers-per-librarian ratio at that level. Instead, the district level version of this ratio is the most granular one possible with NCES data.

English Language Learner (ELL)
These are students being served by "language assistance" programs "(e.g., English as a Second Language, High Intensity Language training, bilingual education)." ELL students are usually "individuals who were not born in the United States or whose native languages are languages other than English." Their language difficulties are deemed sufficiently challenging as to preclude "a proficient level of achievement on State assessments, learning "in classrooms where the language of instruction is English," or "the opportunity to participate fully in society."

Ethnicity
Consistent with the Office of Management and Budget and the Census Bureau, the National Center for Education Statistics defines ethnicity as whether or not an individual identifies as Hispanic or Latino. Students who identify as being of Hispanic or Latino ethnicity are also counted in terms of their race.

Free and Reduced-cost Meals Eligibility
The percentage of students eligible for Free and Reduced-cost Meals under the National School Lunch Act is based on family size and income.

Full-time Equivalency (FTE)
"The amount of time required to perform an assignment stated as a proportion of a full-time position and computed by dividing the amount of time employed by the time normally required for a full-time position."

Individual Education Program (IEP)
"A written instructional plan for students with disabilities designated as special education students under the Individuals With Disabilities Education Act (IDEA, Part B)."

Instructional Coordinator
"Staff supervising instructional programs at the school district or subdistrict level, including supervisors of educational television staff; coordinators and supervisors of audiovisual services; curriculum coordinators and in-service training staff; Title I coordinators and home economics supervisors; and supervisory staff engaged in the development of computer-assisted instruction. School-based department chairpersons are excluded."

Library Support Staff
"Staff member who renders other professional library and media services; also includes library aides and those involved in library/media support. Duties include selecting, preparing, caring for, and making available to instructional staff, equipment, films, filmstrips, transparencies, tapes, TV programs, and similar materials maintained separately or as part of an instructional materials center. Also include activities in the audiovisual center, TV studio, related work-study areas, and services provided by audiovisual personnel."

Locale
SLIDE is utilizing a simplified version of NCES's urban-centric locale codes. For this project, locale type 1 is a central city that is the core of an urbanized area, locale type 2 is a suburb in an urbanized area, locale type 3 is a town, or an incorporated place outside a urbanized area, and locale type 4 is the remainder outside a urbanized area.

National Center for Education Statistics (NCES)
NCES "is the primary federal entity for collecting and analyzing data related to education in the U.S. and other nations. NCES is located within the U.S. Department of Education and the Institute of Education Sciences. NCES fulfills a Congressional mandate to collect, collate, analyze, and report complete statistics on the condition of American education; conduct and publish reports; and review and report on education activities internationally" (NCES, *About us*). One of its core data collection programs is the Common Core of Data, which provides state and district data for SLIDE.

National Ratio of Librarians per School
For this ratio, the number of librarians nationwide is divided by the number of schools nationwide. CCD provides SLIDE with two data files, one for the state level and another for the district level. This national ratio is calculated using national totals derived from the state data file. Notably, the state data file is not merely a summary version of the district file. The state file includes imputation (estimation) to account for missing data. It also includes data for all agency types.

National Ratio of Students per Librarian
For this ratio, the total student enrollment nationwide is divided by the number of librarians nationwide. CCD provides SLIDE with two data files, one for the state level and another for the district level. This national ratio is calculated using national totals derived from the state data file. Notably, the state data file is not merely a summary version of the district file. The state file includes imputation (estimation) to account for missing data. It also includes data for all agency types.

National Ratio of Teachers per Librarian
For this ratio, the number of teachers nationwide is divided by the number of librarians nationwide. Figures for both teachers and librarians are in FTEs. CCD provides SLIDE with two data files, one for the state level and another for the district level. This national ratio is calculated using the state data file. Notably, the state data file is not merely a summary version of the district file. The state file includes imputation (estimation) to account for missing data. It also includes data for all agency types.

National School Library Standards for Learners, School Librarians, and School Libraries
These are the current national standards for school librarianship promulgated by AASL in 2018.

Per Pupil Expenditures
These are the "current expenditures [for] instruction, instruction-related, support services, and other elementary/secondary current expenditures, [excluding] expenditures on capital outlay, other programs, and interest on long-term debt"—divided by student enrollment (NCES, 2020).

Pupil-Teacher Ratio
This ratio "measures the number of students per teacher. It reflects teacher workload and the availability of teachers' services to their students. The lower the pupil/teacher ratio, the higher the availability of teacher services to students. The pupil/teacher ratio is not the same as class size, however. Class size can be described as the number of students a teacher faces during a given period of instruction. The relationship between these two measures of teacher workload is affected by a variety of factors, including the number of classes a teacher is responsible for and the number of classes taken by students" (NCES, 2017).

Race
Consistent with the Office of Management and Budget and the Census Bureau, the National Center for Education Statistics identifies students in terms of the following racial categories: American Indian or Alaskan Native, Asian, Black or African American, Native Hawaiian or Other Pacific Islander, and White. In addition to race, students are also identified in terms of their ethnicity (whether or not they identify as Hispanic or Latino).

School Administrators
"Staff whose activities are concerned with directing and managing the operation of a particular school. Category includes principals, assistant principals, and other assistants; and persons who supervise school operations, assign duties to staff members, supervise and maintain the records of the school, and coordinate school instructional activities with those of the education agency, including department chairpersons."

School Librarian
"A professional staff member or supervisor assigned specific duties and school time for professional library services activities. These include selecting, acquiring, preparing, cataloging, and circulating books and other printed materials; planning the use of the library by students, teachers, and instructional staff; and guiding individuals in the use of library books and material maintained separately or as a part of an instructional materials center."

State Ratio of Librarians per School
For this ratio, each state's total number of librarian FTEs is divided by the state's number of schools. CCD provides SLIDE with two data files, one for the state level and another for the district level. This state ratio is calculated using the state data file. Notably, the state data file is not merely a summary version of the district file. The state file includes imputation (estimation) to account for missing data. It also includes data for all agency types.

State Ratio of Students per Librarian
For this ratio, each state's total student enrollment is divided by the state's total number of librarians in FTEs. CCD provides SLIDE with two data files, one for the state level and another for the district level. This state ratio is calculated using the state data file. Notably, the state data file is not merely a summary version of the district file. The state file includes imputation (estimation) to account for missing data. It also includes data for all agency types.

State Ratio of Teachers per Librarian
For this ratio, each state's total number of teachers is divided by the state's total number of librarians. Both positions are counted in FTEs. CCD provides SLIDE with two data files, one for the state level and another for the district level. This state ratio is calculated using the state data file. Notably, the state data file is not merely a summary version of the district file. The state file includes imputation (estimation) to account for missing data. It also includes data for all agency types.

Teacher
"A professional school staff member who instructs students in prekindergarten, kindergarten, grades 1 through 12, or ungraded classes and maintains daily student attendance records."

Antioch University Seattle embodies values of inclusion and self-guided education, offering programs rooted in social, environmental, and economic justice to unite passion with purpose.

Antioch leverages experiential learning, internships, research studies, outreach projects and other student participation opportunities to enhance the educational experience beyond the classroom.

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