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Report to Congressional Addressees

June 2020

K-12 EDUCATION

School Districts Frequently Identified Multiple Building Systems Needing Updates or Replacement

GAO-20-494

GAO Highlights

Highlights of GAO-20-494, a report to congressional addressees

June 2020

K-12 EDUCATION

School Districts Frequently Identified Multiple Building Systems Needing Updates or Replacement

Why GAO Did This Study

Public school facilities primarily serve an educational role, and they also serve a civic role as voting places and emergency shelters. School districts collectively spend tens of billions of dollars each year on facilities construction needs at the nearly 100,000 K-12 public schools nationwide.

The Joint Explanatory Statement accompanying the Department of Defense and Labor, Health and Human Services, and Education Appropriations Act, 2019 and Continuing Appropriations Act, 2019 included a provision for GAO to study the condition of public school facilities.

This report examines (1) the common facility condition issues school districts identify in public schools and how they have done so and (2) school districts' highest priorities for their school facility renovations and updates, and how districts and states fund them.

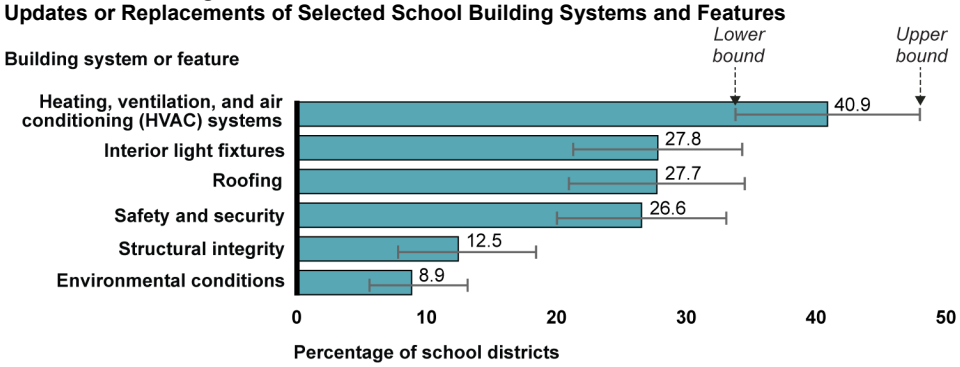
GAO conducted a nationally representative survey of school districts and also surveyed 50 states and the District of Columbia; visited 55 schools in 16 districts across six states, selected for geographic variation and other characteristics; analyzed federal data on school district expenditures for capital construction projects; and interviewed federal, state, district, and school officials.

View GAO-20-494. For more information, contact Jacqueline M. Nowicki at (617) 788-0580 or nowickij@gao.gov.

What GAO Found

About half (an estimated 54 percent) of public school districts need to update or replace multiple building systems or features in their schools, according to GAO's national survey of school districts. For example, an estimated 41 percent of districts need to update or replace heating, ventilation, and air conditioning (HVAC) systems in at least half of their schools, representing about 36,000 schools nationwide that need HVAC updates (see figure). In about half of the 55 schools GAO visited in six states, officials described HVAC-related problems, such as older systems that leaked and damaged flooring or ceiling tiles. If not addressed, such problems can lead to indoor air quality problems and mold, and in some cases caused schools to adjust schedules temporarily. To determine the condition of their school facilities, an estimated two-thirds of districts conducted a facilities condition assessment at least once in the last 10 years. According to GAO's survey of the 50 states and District of Columbia, most states do not conduct statewide assessments to determine school facilities' needs and instead leave this task to school districts.

Estimated Percentage of Public School Districts in Which at Least Half the Schools Need Updates or Replacements of Selected School Building Systems and Features



Source: GAO analysis of school district survey data. | GAO-20-494

Note: GAO administered the survey from August to October 2019. Thin bars in the chart display the 95 percent confidence interval for each estimate.

School districts' highest priorities for their school facilities were improving security (an estimated 92 percent), expanding student access to technology (87 percent), and monitoring health hazards (78 percent), according to GAO's school district survey. In school districts GAO visited, officials said they first address health hazards and safety issues. In nearly all districts GAO visited, security also had become a top priority, with some districts prioritizing security updates over replacing building systems, such as HVAC. In about half of districts nationwide, funding for school facilities primarily came from local sources such as property taxes, based on GAO's survey. High-poverty districts more commonly relied on state funding and used property taxes less commonly than low-poverty districts. According to GAO's state survey, 36 states provided capital funding to school districts for school construction or renovations, including five of the six states GAO visited, though the funding amounts and mechanisms differed considerably within and across states.

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Abbreviations

CCD	Common Core of Data
COVID-19	Coronavirus Disease 2019
CRS	Congressional Research Service
DOD	Department of Defense
Education	Department of Education
FCI	facility condition index
FEMA	Federal Emergency Management Agency
FRPL	free or reduced-price lunch
HVAC	heating, ventilation, and air conditioning
LED	light emitting diode
NCES	National Center for Education Statistics

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U.S. GOVERNMENT ACCOUNTABILITY OFFICE
441 G St. N.W.
Washington, DC 20548

June 4, 2020

Congressional Addressees:

Public school facilities play an integral role in the educational and civic life of local communities. Each year, over 50 million students and 6 million teachers and staff use these facilities during school hours. In addition, school facilities often operate as community centers, voting places, and emergency shelters.

In the last year, several school districts across the country have temporarily closed schools due to hazardous conditions of the school buildings that can pose health and safety risks to students, teachers, and staff.[1] For example, water damage caused by a leaking roof or heating, ventilation, and air conditioning (HVAC) system can lead to problems with indoor air quality and exposure to substances such as mold or asbestos.

To address these and other concerns, public school districts collectively spend tens of billions of dollars each year on facilities construction needs at the nearly 100,000 K-12 public schools across the nation, according to Department of Education (Education) data.[2]

The Joint Explanatory Statement accompanying the Department of Defense and Labor, Health and Human Services, and Education Appropriations Act, 2019 and Continuing Appropriations Act, 2019, included a provision for us to study the condition of public school facilities.[3] This report examines (1) the common facility condition issues school districts identify in public schools and how they have done so and

[1]Throughout this report, "hazardous conditions" refers to some issues with the physical condition of the school building. We are not referring to school closures that occurred in 2020 due to Coronavirus Disease 2019 (COVID-19).

[2]Education defines construction as production of fixed works and structures and additions, replacements, and major alterations, including planning and design, site improvements, and provision of equipment and facilities integral to the structure. See Department of Education, National Center for Education Statistics, *Revenues and Expenditures for Public Elementary and Secondary School Districts: School Year 2015-16*, NCES 2019-303 (Washington, D.C.: May 2019). In the most recent 3 years for which data are available, school district expenditures for capital construction totaled about $40 billion (2015), $45 billion (2016), and $50 billion (2017), according to Education's data.

[3]H.R. Rept. 115-952, at 546 (2018).

(2) school districts' highest priorities for their school facility renovations and updates, and how districts and states fund them.

To address both objectives, we surveyed all 50 states and the District of Columbia on their role in assessing, collecting information on, and providing resources for school facilities.[4] We conducted the survey from September to December 2019. We also conducted a nationally representative survey of K-12 public school districts from August to October 2019. The unweighted response rate was 57 percent. Estimates generated from the survey, adjusting for nonresponse, are generalizable to the population of public school districts.[5] We also visited 55 schools in 16 school districts across six states (California, Florida, Maryland, Michigan, New Mexico, and Rhode Island) to observe a predetermined set of key building systems and features in each school. We interviewed district and school staff about their roles in funding, assessing, or providing other resources for facilities to school districts and schools. We selected states to vary geographically, as well as in the amount and type of funding they provide for school facilities, and data they collect on the condition of school facilities.

To determine relevant systems and features for school facilities, we reviewed the Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process, an international standard for assessing the condition of a building.[6] Additionally, we interviewed multiple subject matter experts and stakeholders in the field of school facilities and building assessments. We used this information to create two lists of building systems and features, which we asked about in our surveys and observed in the schools we visited. Specifically:

[4]Mississippi and Illinois did not respond to our survey. Data throughout this report are based on the 49 respondents, unless otherwise noted.

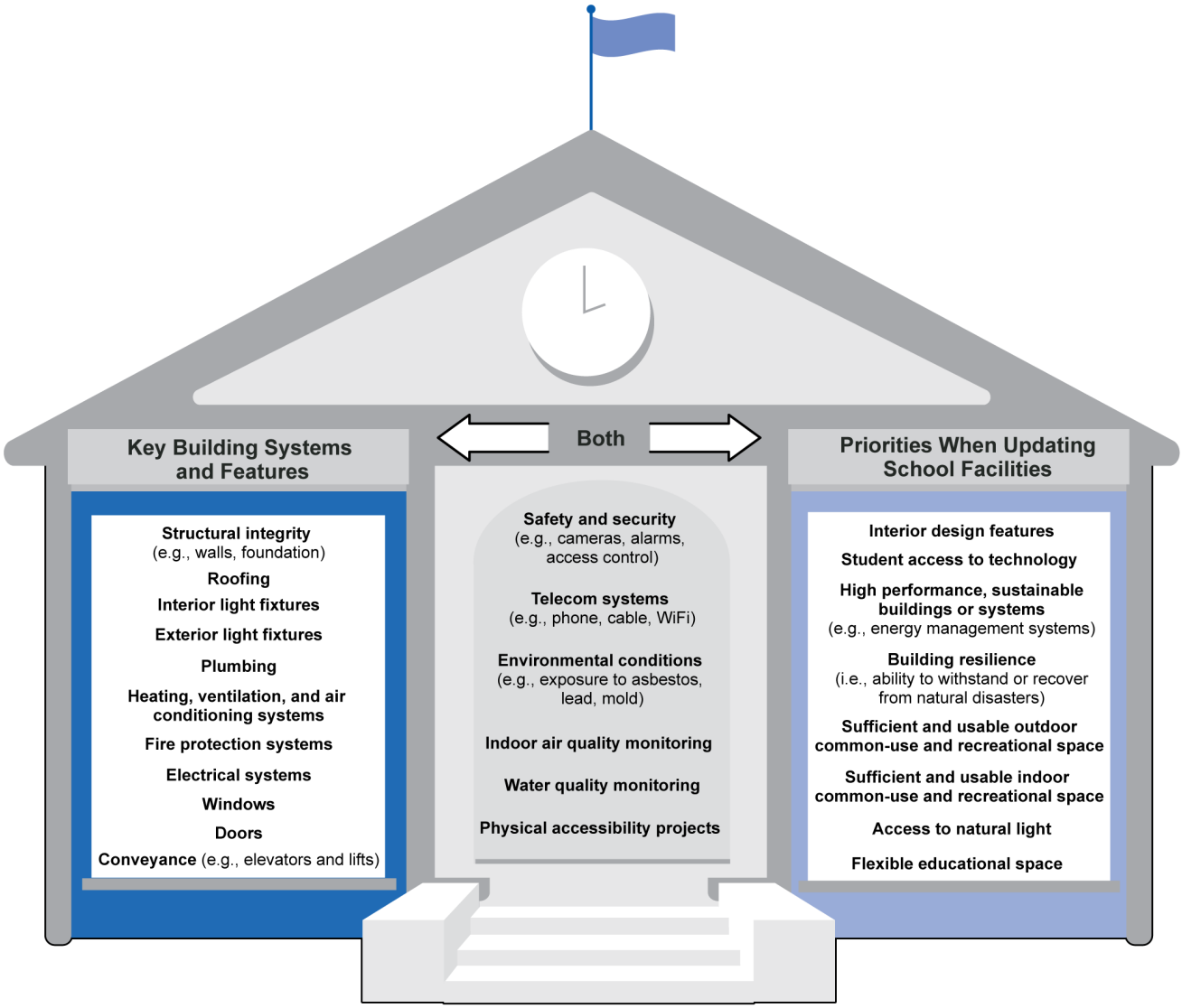
[5]The weighted response rate was 53 percent. Following best practices in survey research and echoed in Office of Management and Budget, Standards and Guidelines for Statistical Surveys (September 2006), we carried out a nonresponse bias analysis. Based on the nonresponse bias analysis and resulting nonresponse adjusted analysis weights, we determined that estimates using these weights are generalizable to the population of eligible school districts. Unless otherwise noted, all estimates from this survey that we present in this report have a margin of error no more than plus or minus 10 percentage points. See app. II for the questions we asked states and school districts on our surveys.

[6]ASTM International, E2018-15, *Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process*. 2015. ASTM International develops voluntary consensus industry standards.

- The first list focused on key systems and features that may be necessary to a school building's day to day operations;
- the second list focused on additional or emerging priorities for systems and features that school districts may consider when modernizing school facilities.

We also validated these lists of systems and features through survey pretests with facilities personnel in six states. Because some modernization priorities are also key to a school's day-to-day operations, there are systems and features that appear on both lists (see fig. 1).

Figure 1: Building Systems and Features in School Facilities



Source: GAO. | GAO-20-494

Note: To determine these lists, we reviewed an international standard on building condition assessments and interviewed multiple stakeholders and subject matter experts in the field. Key building systems and features are those necessary for a school building's day-to-day operations, and priorities for modernizing reflect additional or emerging priorities for school facilities.

To address our second objective, we also analyzed federal data on school district expenditures for capital construction projects. We used Education's Local Education Agency Finance Survey for school year 2015-16 to examine patterns in expenditures by school district

characteristics, such as poverty and locale.[7] We determined these data were sufficiently reliable for the purposes of our reporting objectives by reviewing relevant documentation, interviewing knowledgeable Education officials, and testing for missing data, outliers, and other potential errors. See appendix I for more information on our objectives, scope, and methodology.

We conducted this performance audit from February 2019 to June 2020 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Background

K-12 Public School Facilities Funding

Local educational agencies (referred to in this report as school districts or districts) receive funding for education primarily from state and local sources. School districts can typically use this funding for a wide range of purposes, including school maintenance and operations. Maintenance may include routine replacement of lighting, filters, or building system parts, as well as emergency repairs to building systems. According to Education, maintenance and operations may also cover care and upkeep of grounds and equipment, vehicles (other than student transportation), and security.[8]

When school districts need to construct, renovate, replace, or make major repairs to building systems or features, such as roofing or plumbing, they

[7]Finance data for school year 2015-16 were the most recent at the time of our analysis. We measured poverty level by the percentage of students in a school district eligible for free or reduced-price lunch. The Department of Agriculture's National School Lunch Program provides reduced price or free lunches to children in schools. Children are eligible for free lunches if their household income is below 130 percent of federal poverty guidelines or if they meet certain automatic eligibility criteria, such as being a member of a household receiving assistance under the Supplemental Nutrition Assistance Program. Students are eligible for reduced-price lunches if their household income is between 130 percent and 185 percent of federal poverty guidelines. For example, the maximum household income for a family of four to qualify for free lunch benefits was $33,475 in school year 2019-20.

[8]Department of Education, National Center for Education Statistics, *Revenues and Expenditures for Public Elementary and Secondary Education: School Year 2015-16*, NCES 2019-301 (Washington, D.C.: December 2018).

typically use capital funding, which is separate from funding used for maintenance and operations.[9]

School districts use various mechanisms to fund capital projects. The specific funding mechanisms available to a given school district may differ based on state laws or regulations, and may require approval from state or local voters. A common funding mechanism for capital projects is to issue bonds. Bonds are debt securities issued by states, school districts, and other governmental entities and are repaid with interest, often through local property taxes or other types of local revenue. In some states, school districts might also use funding mechanisms called capital reserves and sinking funds to raise funds for school facilities projects. Capital reserves allow districts to hold end-of-year surpluses of general education funding in a capital reserve fund, which typically grows over time and can be used for large-scale projects. Sinking funds are usually generated from local property taxes and allow districts to set aside a percentage of property taxes each year to be used for capital projects. Districts do not pay interest because the funds are not borrowed; however, the funds generated may not be sufficient for large-scale projects.

In specific circumstances, some federal funding is available for school facilities.[10] For example, Education administers the Impact Aid program, which compensates local school districts that, among other things, have lost property tax revenue due to federal activities. This may include the presence of tax-exempt federal property, such as a military installation, children in public schools whose parents work and live on federal property, or children living on Indian lands. In fiscal year 2019, Education provided $17.4 million in Impact Aid grants to school districts, specifically for construction, renovation, or repair of school facilities.[11] Additionally, the Federal Emergency Management Agency (FEMA) provides funding

[9]According to subject matter experts we interviewed, the definitions of "capital funding" and "capital projects" vary across states and districts. Sometimes these terms are defined by a monetary threshold—e.g., if a district spends a certain amount on a project, then it is considered a "capital project." We asked state and district officials about capital funding and capital projects, as defined by their state or district.

[10]For a description of federal funding and programs for school facilities, see Congressional Research Service (CRS), *School Construction and Renovation: A Review of Federal Programs*, R41142 (Washington, D.C.: November 2015). CRS is updating that report and expects to release a new version in 2020.

[11]For information on school facilities in districts that receive Impact Aid, see app. III.

for school districts affected by some natural disasters, partly to repair and replace damaged buildings. For example, in 2019, following Hurricane Harvey, FEMA awarded grants to two school districts in Texas to set up a temporary middle school and replace books, equipment, and furniture, among other things.

Facilities Condition Assessments

A facilities condition assessment is a systematic inspection of building systems and features using a standardized method for recording observations about condition. For example, one might walk through a building, record the condition of building systems and features, and identify deficiencies.[12] Individuals conducting these assessments may also review documentation on the building systems, conduct interviews with administrators or other stakeholders, and develop cost estimates of physical deficiencies. Facilities condition assessments help districts identify deferred maintenance needs in schools, which can help them plan and budget for facilities.[13]

School districts can use data gathered from these assessments to develop a facility condition index (FCI). FCIs provide a point-in-time comparison of the cost of repairing deficiencies in a building with the cost of replacing the building, and can help school districts compare conditions across their facilities.[14] FCIs may also help school districts budget for targeted replacements or improvements of building systems.

[12]For example, see ASTM International, E2018-15, *Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process*. 2015.

[13]The Federal Accounting Standards Advisory Board defines deferred maintenance as maintenance that was not performed when it should have been or was scheduled to be and which was put off or delayed for a future period.

[14]See National Forum on Education Statistics, *Forum Guide to Facility Information Management: A Resource for State and Local Education Agencies*, NFES 2018-156 (Washington, D.C.: 2018).

School Districts Frequently Identified Multiple Building Systems Needing Attention, Typically Through Formal Facilities Assessments

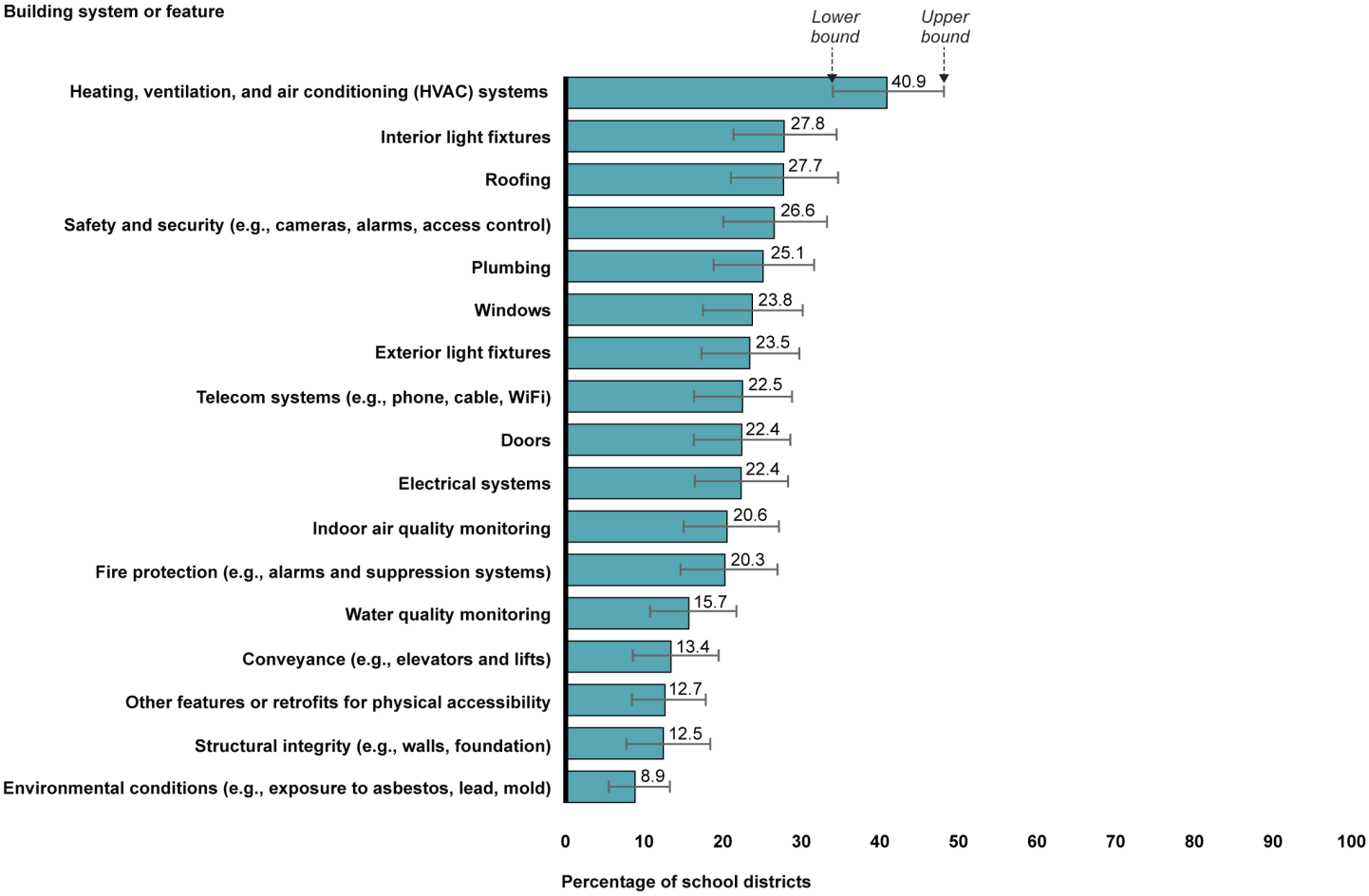
We Estimate About Half of School Districts Need to Update or Replace Multiple Building Systems and Features, Such as HVAC Systems

Based on our nationally representative survey of school districts, we estimate that about half (54 percent) of districts need to update or replace at least two building systems in many of their schools. Further, we estimate about a quarter of districts (26 percent) need to update or replace at least six systems in many of their schools.[15] In terms of specific building systems and features, we estimate that 41 percent of school districts need to update or replace HVAC systems in at least half their schools (about 36,000 schools nationwide).[16] We also estimate about a quarter of districts need to update or replace other building systems, including interior lighting, roofing, safety and security systems, or plumbing in at least half their schools (see fig. 2).

[15]The phrase "many of their schools" in this paragraph refers to districts that needed updates or replacements of multiple building systems or features in at least half of their schools. School districts responded separately for each system or feature (e.g., when 50 percent of a district's schools needed HVAC systems updated or replaced and 50 percent needed roofing updated or replaced). As a result, we are not able to determine if the same 50 percent of schools needed updates or replacements to both systems or features. This is because the schools in each group do not necessarily overlap.

[16]We calculated the number of schools that needed updates or replacement of building systems or features based on the total number of schools in the district and the percentage of schools that needed a given update or replacement. Because school districts provided this percentage as a range (e.g., 75 to 100 percent), we calculated three estimates for each system or feature: low, middle, and high. Our estimate, 36,000 schools, is the low-point, conservative estimate for schools nationwide that need updates or replacements to their HVAC systems and has a margin of error of 9,000 schools.

Figure 2: Estimated Percentage of School Districts in Which at Least Half the Schools Need Updates or Replacements of Key Building Systems or Features



Source: GAO analysis of school district survey data. | GAO-20-494

Note: GAO administered the survey from August to October 2019. The thin bars display the 95 percent confidence interval for each estimate.

We saw similar results among the 55 schools we visited. Of those, 28 had HVAC issues, such as older systems that frequently malfunction or leak and damage flooring or ceiling tiles, according to our observations and discussions with district and school officials. For example, one school we visited in Rhode Island had parts or components of their operating HVAC systems that were nearly 100 years old, according to district officials (see fig. 3). In Michigan, we visited one school that district officials said used an original boiler from the 1920s to heat the building. According to district officials, older boilers are labor-intensive to maintain because city code

requires an engineer to be on site when each boiler is operating; without constant monitoring when in operation, the boilers could build up too much pressure and explode. Officials in a New Mexico district said their mechanical systems experience issues because hard water (i.e., water with a high concentration of minerals) damages the systems and causes them to malfunction. Because of the hard water, the district spent $150,000 to replace an 8-year-old boiler that, according to district officials, should have lasted 20 years. District officials said they would like to purchase filtration and water softening systems to address the issue, but that the district cannot afford to do so.

Figure 3: Public School in Rhode Island with One New Boiler (left) and One Original to 1931 Building

Source: GAO. | GAO-20-494

If not addressed, HVAC issues can result in health and safety problems. Officials in several school districts we visited said there are serious consequences to not maintaining or updating HVAC systems, including lost educational time due to school closings and the potential for mold and air quality issues (see fig. 4). For example, officials in a Michigan district said about 60 percent of their schools do not have air conditioning, and in 2019, some temporarily adjusted schedules due to extreme heat. Without air conditioning, schools relied on open windows and fans, which were not always effective at cooling buildings to safe temperatures for students and staff, according to district officials.[17] Officials in a Maryland district said the district retrofitted some schools with air conditioning, but did not update pipes and insulation serving the HVAC systems, which has caused moisture and condensation problems in these buildings. Officials were concerned the moisture and condensation could lead to air quality and mold problems, but said that to remedy these issues could cost over $1 million for each building.

[17]Some districts we visited had criteria for closing school due to heat. For example, one district's policy stated it would consider early dismissal for schools without air conditioning when the temperature in the majority of classrooms is 85 degrees or higher, or when the outside heat index reaches 100 degrees by 10:30 a.m.

Figure 4: Examples of Issues with Heating, Ventilation, and Air Conditioning (HVAC) Systems in Public Schools

Water damage from HVAC leak in a California school, whose officials said replacing flooring is difficult because of asbestos floor tiles.

Water damage from HVAC leak in a Michigan school library

Open windows at a Maryland school without air conditioning in most areas of the building. The school district must close school if the building temperature rises above a safe level for students and staff.

Source: GAO. | GAO-20-494

Note: According to the Environmental Protection Agency, intact and undisturbed asbestos-containing materials generally do not pose a health risk to students, teachers, and school staff. See *Sensible Steps to Healthier School Environments*. EPA 908-R-17-001, (Washington, D.C.: April 2017).

School districts also reported needing to update or replace other key building systems and features. Based on our school district survey, we estimate that about 30,000 schools need to update or replace interior

lighting and about 28,000 schools need to update or replace roofing.[18] Of the 55 schools we visited, some had recently updated or replaced these systems, while others continued to face challenges. For example, 15 schools had installed light emitting diode (LED) systems or incorporated other energy efficient features, such as motion sensors to turn off lights in unused rooms or automatic dimmers that adjust based on the amount of daylight in a given space (see fig. 5). Six schools had not recently updated their interior lighting, but officials expressed a desire to do so in the near future, such as by switching to LED systems. Some district officials said LED systems can reduce energy consumption and utility costs.

[18]We calculated the number of schools that needed updates or replacement of building systems or features based on the total number of schools in the district and the percentage of schools that needed a given update or replacement. Because school districts provided this percentage as a range (e.g., 75 to 100 percent), we calculated three estimates for each system or feature: low, middle, and high. Our estimates of schools that need interior lighting and roofing updates or replacements are the low-point, conservative estimates. The margin of error for interior lighting is 11,000 schools and for roofing is 8,000 schools.

Figure 5: Examples of Updates to Interior Lighting in Public Schools

Energy efficient lighting in a New Mexico school

Light emitting diode (LED) lighting in a Maryland school

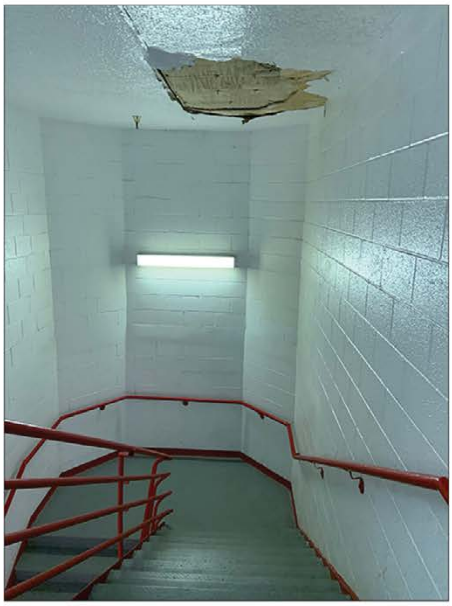
Lights in a California school automatically turn off when rooms are not in use

Source: GAO. | GAO-20-494

Of the 55 schools we visited, 18 had problems with their roofing, according to district and school officials. Roofing problems ranged from small leaks to larger issues requiring a costly replacement (see fig. 6). For example, officials in a Rhode Island district said that replacing the roofing at one school would likely cost about $3 million. These officials said, because the district did not have the funds to replace it, they instead planned to spend $20,000 on temporary fixes, with the hope that these fixes would last until funding was available for a full replacement.

Figure 6: Examples of Issues Related to Roofing at Public Schools

Roof leak in a Rhode Island school gym and bin underneath used to catch the water.



Ceiling damage from a roof leak in a New Mexico school.

Bucket full of water in the middle of a Florida classroom with a roof leak.

Source: GAO. | GAO-20-494

Majority of School Districts Evaluated Facilities to Determine Conditions

Based on our survey of school districts, we estimate that 65 percent of districts had conducted a facilities condition assessment of their schools at least once in the last 10 years and about 35 percent had not or did not know if their district had (see fig. 7).[19] Of the districts that had conducted these assessments, almost all did so to evaluate safety and hazards (99.6 percent) and support capital planning, including prioritizing large-scale projects (96.6 percent). Additionally, of these districts, an estimated:

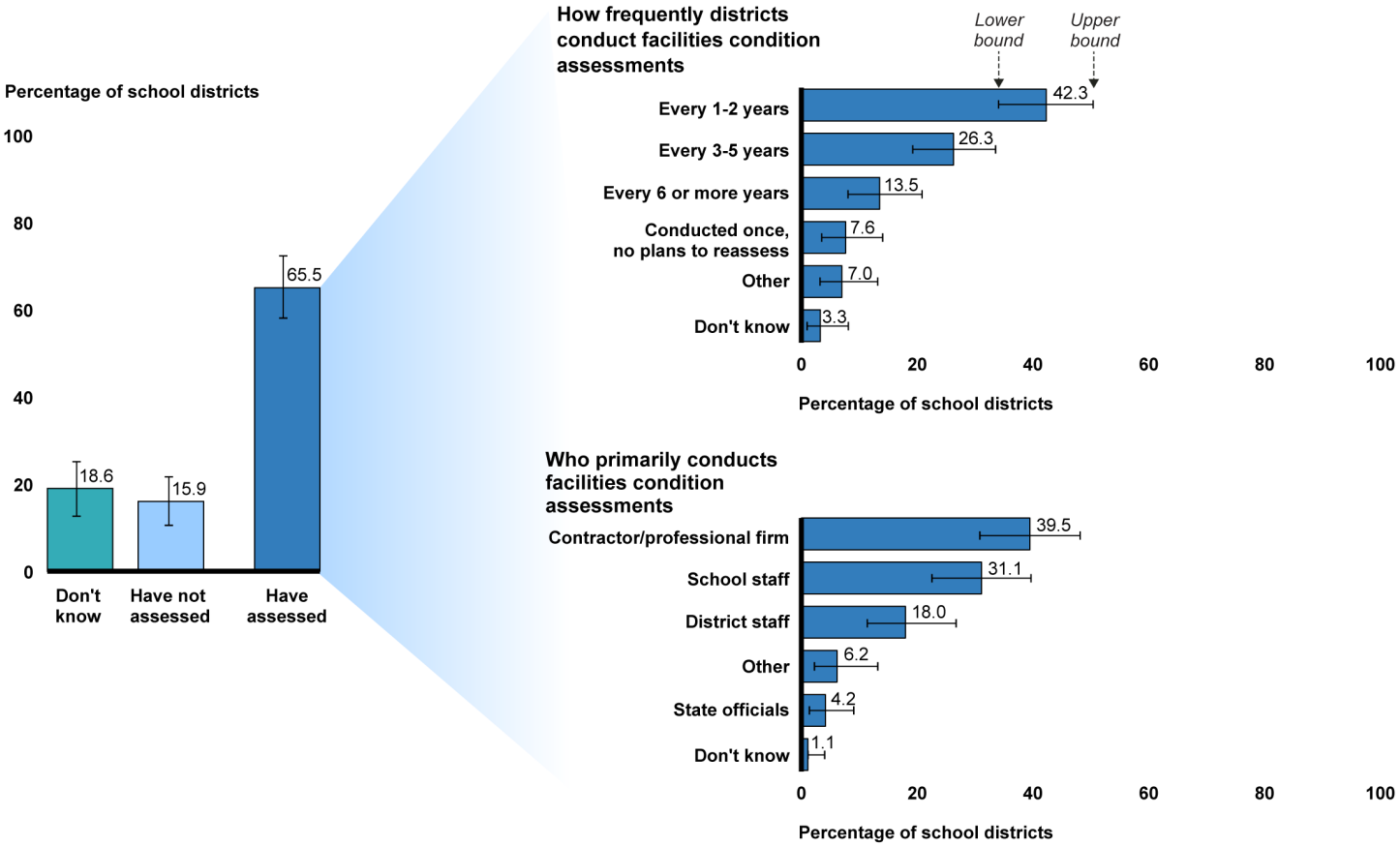
- 86.2 percent assessed facilities at every school in their district;
- 68.6 percent evaluated their facilities at least every 5 years; and
- 39.5 percent hired contractors or professional firms to conduct the assessment.

We estimate that at least 53 percent of all students in the nation attended a school that had a facilities condition assessment in the last 5 years.[20]

[19]We asked about assessments in the past 10 years because subject matter experts we interviewed said that many states reduced or eliminated funding for school facilities during the recession from 2007 to 2009 and in the years that followed, contributing to an increase in deferred maintenance. Districts that had not conducted an assessment since the recession ended (10 years ago) may be unlikely to have accurate information about the condition of their school facilities. Several district officials we spoke with said they conduct assessments more frequently to develop and update 5-year facilities work plans.

[20]The margin of error is plus or minus 15 percent. This is an underestimate of the percentage of students who attend a school that had been assessed in the last 5 years because we limited the analysis to districts that assess every school. Some districts assessed some of their schools at least every 5 years; however, we could not determine which schools they assessed and therefore could not calculate the number of students in those schools.

Figure 7: Estimated Percentage of School Districts that Conducted Facilities Condition Assessments at Their Public Schools in the Last 10 Years



Source: GAO analysis of school district survey data. | GAO-20-494

Note: GAO administered the survey from August to October 2019. The thin bars display the 95 percent confidence interval for each estimate.

We estimate that 16 percent of districts had not conducted a facilities condition assessment in the last 10 years.[21] In our survey, several

[21]The remaining 19 percent of school districts did not know if they had conducted a facilities condition assessment at least once in the last 10 years. Because we are unable to report generalizable estimates from our school district survey at the state level, we cannot estimate the percentage of districts that did not conduct assessments, but are located in states that conduct them. However, we compared nongeneralizable data for the 104 districts that reported they did not assess or know if their district had assessed their school facilities in the last 10 years to data from our state survey to determine if some of these districts may have separately had statewide assessments. Thirteen of those 104 districts were located in a state that conducted a statewide assessment in that timeframe.

districts provided reasons why they had not done so, including a lack of available funding or because they assessed school conditions through other mechanisms, such as informal walkthroughs.

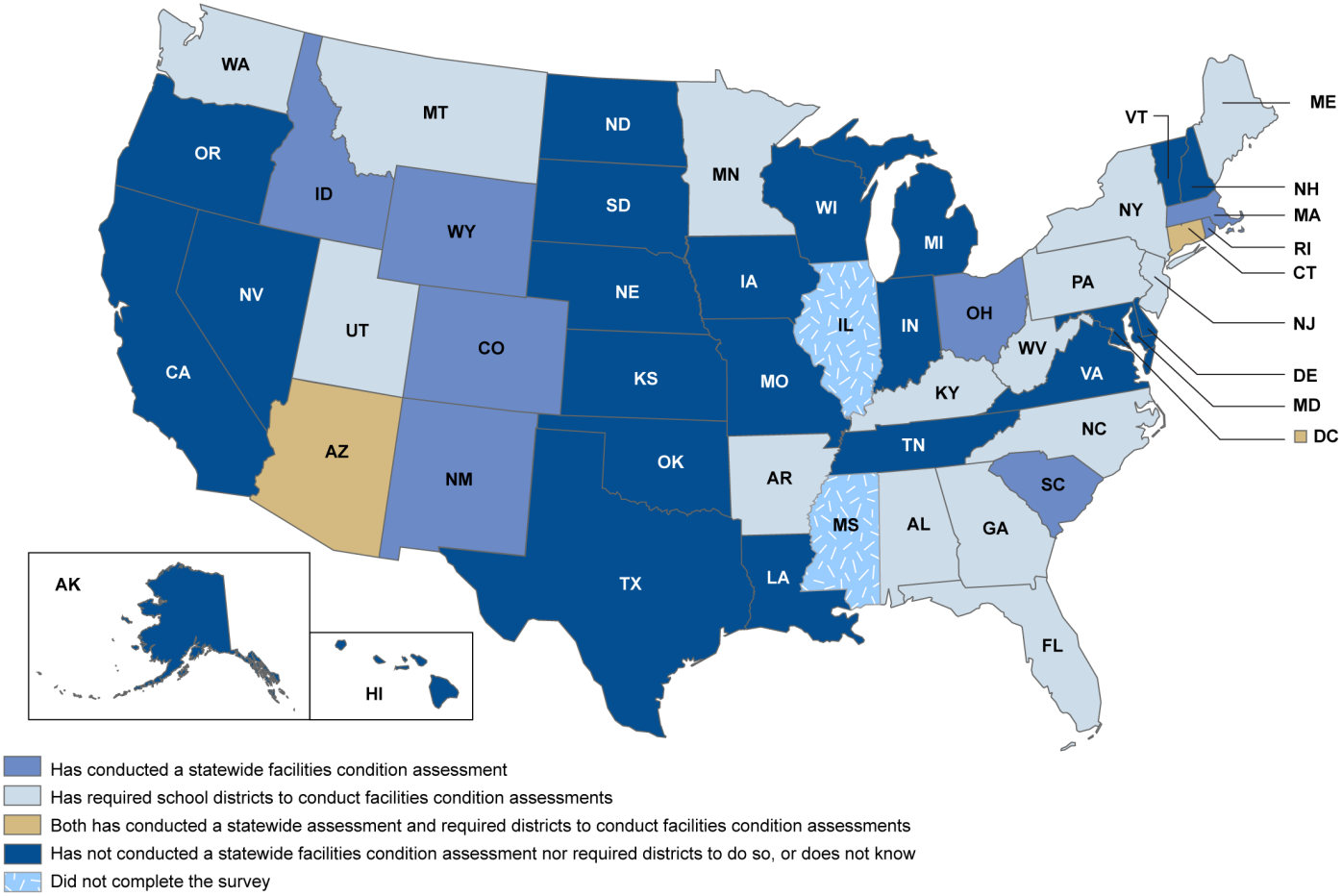
In addition to district-level facilities condition assessments, 11 states conducted a state-level facilities condition assessment in the last 10 years, according to our state survey (see fig. 8). Common reasons provided by these states for evaluating school facilities included to assess safety and hazards (9 states) and provide facilities information to the public (9 states). However, most states (38 of 49) either had not conducted or did not know if their state had conducted a state-level facilities condition assessment. Of these 38 states:

- 15 states reported they required school districts to conduct assessments;[22]
- 21 states reported that they neither conduct statewide assessments nor require school districts to do so; and,
- Two states did not know if their state had conducted such an assessment.

States that had not conducted a statewide facilities condition assessment or required districts to do so frequently said they do not assess school conditions because school districts are primarily responsible for addressing deficiencies with school facilities.

[22]Eleven of the 15 states that reported they required school districts to conduct facilities condition assessments said they also collected this information on school conditions from the districts. We are unable to report generalizable estimates from the school district survey at the state level. However, we compared nongeneralizable data for the 137 districts that responded to our survey question about conducting assessments and were located in states that reported requiring districts to conduct facilities condition assessments. Of those 137 districts, 15 reported that they had not conducted assessments in the last 10 years. States and districts self-reported information about assessments. We did not verify whether states required assessments or whether districts had conducted them.

Figure 8: Statewide Facilities Condition Assessments at Public Schools in the Last 10 Years



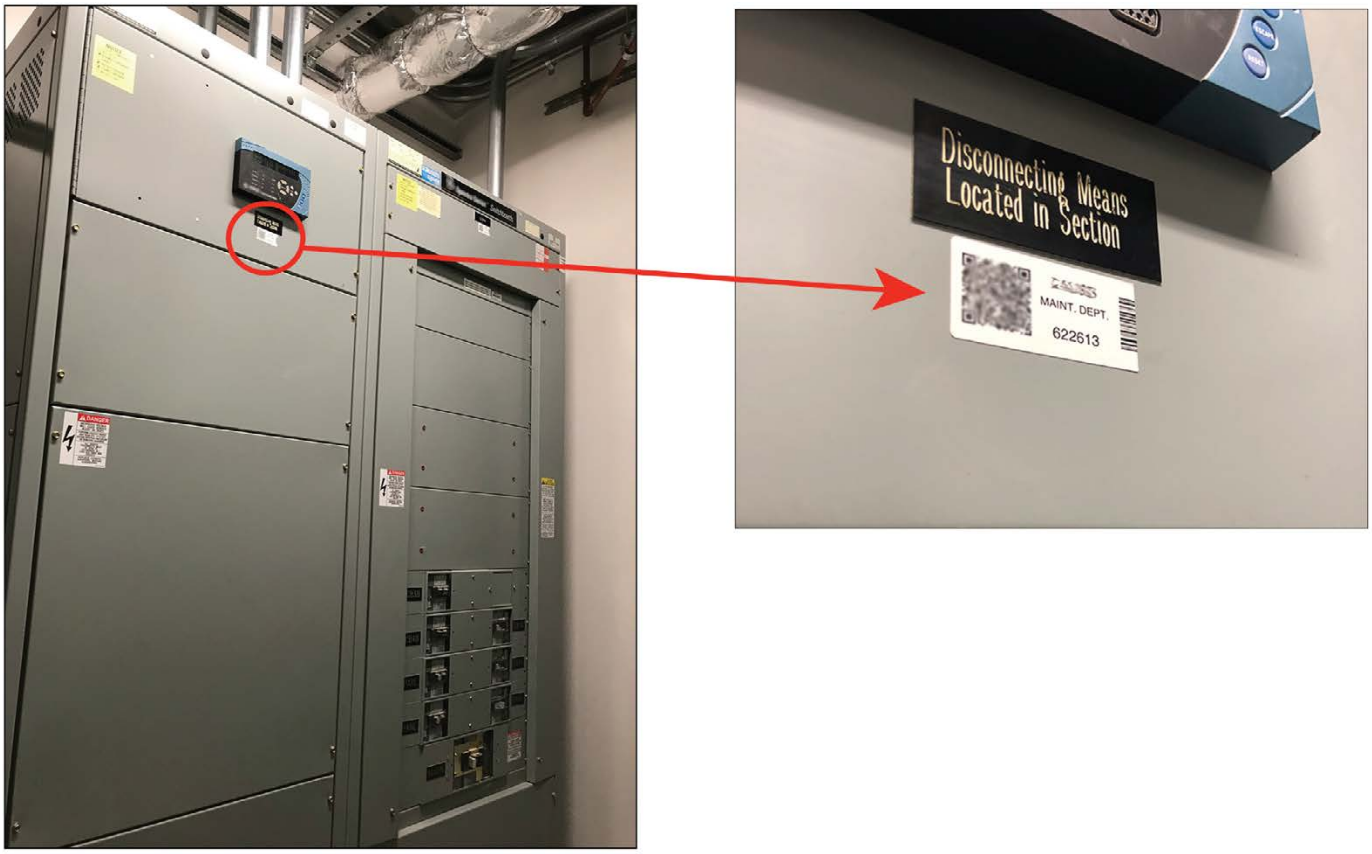
Sources: GAO analysis of state survey data; Map Resources (map). | GAO-20-494

Note: Illinois and Mississippi did not respond to our survey.

Most of the districts we visited said they had conducted a facilities condition assessment. Specifically, of the 16 school districts we visited in six states, officials in 12 districts said they had recently conducted a facilities condition assessment for a variety of reasons, such as to develop facilities master plans or raise support for a bond. For example, officials in one urban California district said they conducted an extensive facilities condition assessment for planning purposes and developed a master plan of issues identified in schools 20 years or older. During the assessment, the district assigned barcodes to certain systems, such as HVAC and water fountains, to track conditions across schools (see fig. 9).

District officials said they update facilities data as they complete projects. Officials in a rural Michigan district said they conducted an assessment before asking voters to approve a sinking fund. District staff identified the value, age, cost for repairs, and expected lifecycle of all major systems, which helped them estimate funding needs for the next 10 years. Officials in one Florida district said they do not conduct facilities condition assessments because the district is small and the facilities manager knows the condition of their schools and when facilities' issues arise.

Figure 9: Barcodes Used to Help a California School District Track the Condition of Building Systems in its Public Schools



Source: GAO. | GAO-20-494

Of the six states we visited, officials from Rhode Island and New Mexico said their states had conducted statewide facilities condition assessments and Florida officials reported requiring school districts to conduct these

assessments.[23] Officials in Rhode Island and New Mexico said data from these assessments help determine state funding for districts. For example, according to officials, Rhode Island hired a consulting firm to assess school facilities in order to develop an independent estimate of the statewide funding need; in 2017, that estimate was about $3 billion.[24]

Officials in three of the states we visited—Michigan, California, and Maryland—said their states had neither conducted a facilities condition assessment nor reported requiring school districts to do so. Officials in Michigan said their state provides no funding for school facilities nor requires districts to conduct facilities condition assessments because districts are responsible for planning and prioritizing school facilities' needs. Michigan officials said districts often assess facility conditions before seeking bonds or other local funding to show local voters the level of need. Officials in California similarly said that school districts are primarily responsible for evaluating school conditions and noted that it would be cost-prohibitive for the state to conduct a statewide assessment, given the number of schools in the state. Maryland officials said the state has not had funding to conduct a statewide assessment since 2003, but they are currently planning a future statewide assessment. After this initial assessment, the state plans to assess each school facility every 3 to 4 years, according to these officials.

[23]According to state officials, Florida requires districts to maintain a 5-year work plan for school facilities. District officials described different ways they meet this requirement. For example, officials from one Florida district said they conduct a facilities condition assessment to identify facilities' needs for the 5-year plan, whereas officials from another district said they do not conduct formal assessments, but rather update the 5-year plan as issues arise.

[24]We did not compare cost estimates from the statewide facilities condition assessment because these assessments can vary widely in methodology and cost calculation. For example, in Rhode Island, officials conducted a high-level assessment in 2013, which estimated the statewide facilities funding need to be around $1.8 billion. The state used a different methodology for the 2017 assessment and identified a higher estimate of $3 billion.

School Districts Prioritized Safety and Technology Updates and Primarily Used Local Funding for School Facilities

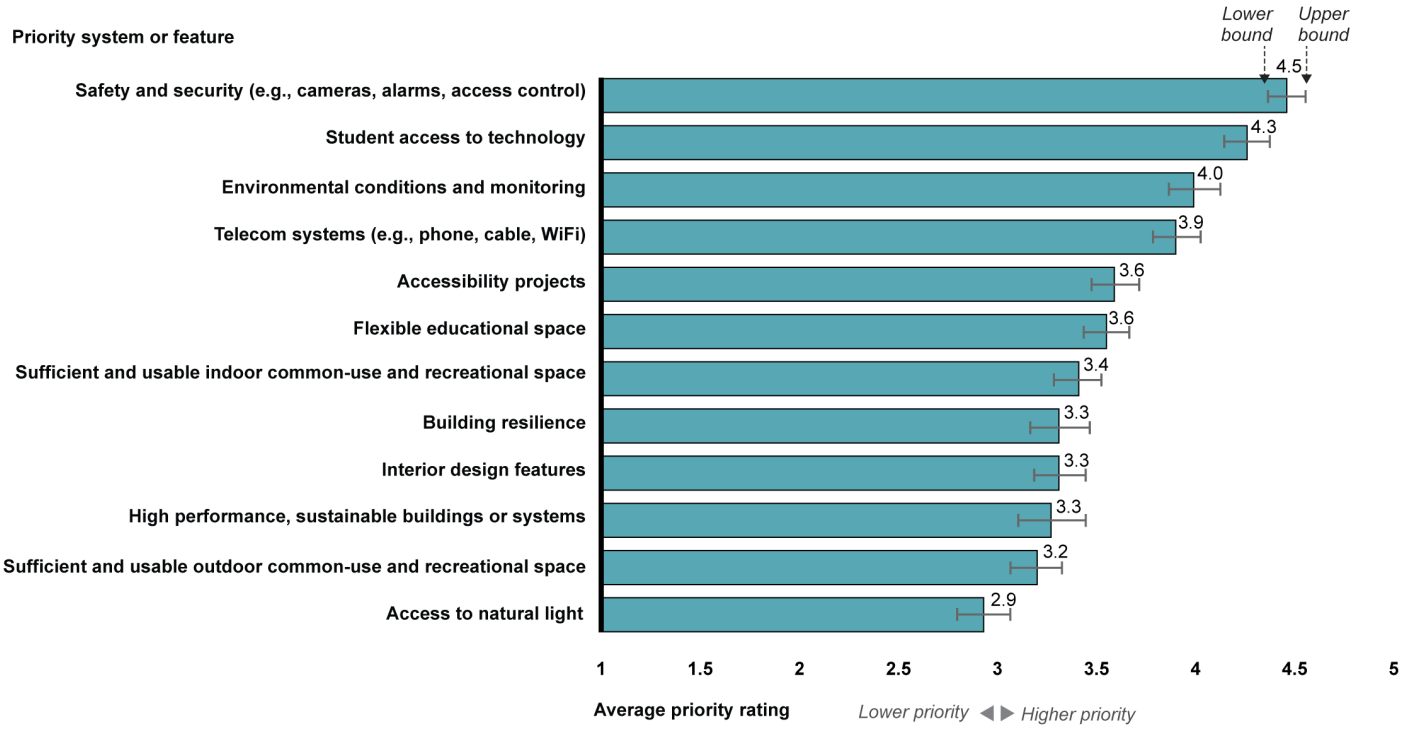
School Districts Prioritized Safety and Technology while Also Addressing Repairs and Modernization Projects

In addition to key building systems such as HVAC, lighting, and roofing, school districts considered the need to ensure schools are free from health hazards, as well as update schools with modern educational spaces and features. Specifically, based on our survey, we estimate that school districts' high priorities when updating or renovating school facilities are as follows: security (estimated 92 percent), student access to technology (87 percent), monitoring hazards to student and staff health (78 percent), and improving telecommunication features such as wireless internet (74 percent).[25] In comparison, the 100 largest school districts, which serve approximately 10.4 million students, identified security (estimated 99 percent), monitoring health hazards (94 percent), and completing projects to increase physical accessibility for students with disabilities (86 percent) as their high priorities.

Overall, in response to our survey, districts ranked the level of priority of each building system or feature on a categorical scale of five levels, which we assigned numerical rankings of 1 (not a priority) to 5 (top priority). Average priority ratings ranged from approximately 4.5 for safety and security to approximately 2.9 for access to natural light (see fig. 10).

[25]In our survey, we asked school districts to rank their priorities for school systems and features when updating or renovating school facilities separately from identifying the key facility systems and features that need to be updated or replaced in their schools. We did so because districts may need to address basic building conditions while also updating schools with additional features. To report on high priorities, we combined two response options on our survey: very much a priority and top priority. Monitoring health hazards is based on responses to the category of environmental conditions and monitoring, which included air and water quality monitoring, as well as addressing exposure to asbestos, lead, and mold.

Figure 10: School Districts Estimated Priority Rankings for School Building Systems or Features When Updating or Renovating Facilities



Source: GAO analysis of school district survey data. | GAO-20-494

Note: Districts ranked the level of priority of each system or feature on a categorical scale of five levels, which we assigned numerical rankings of 1 (not a priority) to 5 (top priority). Environmental conditions and monitoring includes air and water quality monitoring, as well as addressing exposure to asbestos, lead, and mold. GAO administered the survey from August to October 2019. The thin bars display the 95 percent confidence interval for each estimate. Due to rounding, some point estimates appear to be the same although there is slight variation. For example, the estimated ranking for accessibility projects was 3.59 and the estimated ranking for flexible educational space was 3.55.

Similarly, officials in nearly all of the 16 school districts we visited told us that some combination of addressing urgent health hazards, improving security, and upgrading technology were among their top priorities. In addition, district staff told us they were undertaking projects to modernize spaces and improve the learning environment, when possible. Districts implemented these priorities differently based on their needs and resources.

Health Hazards

Many school district officials said they address facility issues that affect staff and student health with more urgency than many other issues. At schools we visited around the country, officials reported initiatives to

address health concerns that ranged from total renovations to temporary mitigation programs (see fig. 11). For example, officials in a district in California told us that in two schools we visited they removed all materials containing lead, as well as replaced all roofs that contained asbestos, in accordance with health and safety regulations. These officials also said staff tests the water quality in all schools per recommended guidelines. In a different district, officials said they had concerns about water quality, but that they did not have the funding to remediate the issue in all schools.[26] Therefore, the district provides bottled water to students in nearly all of its schools, and installs water filtration systems when it constructs or renovates schools. In several schools in five states we visited, officials said there is asbestos in floor or ceiling tiles or other materials that would require abatement during any renovation. Because abatement increases costs, schools may prioritize other projects or find workarounds. For example, at one high school in Florida, the district installed interactive white boards on top of old chalkboards rather than risk disturbing asbestos in the walls by removing the chalkboards. Officials in two districts also told us about addressing potential health hazards related to climate. For example, at a school in Florida, officials said they have to address mold and mildew issues due to frequent flooding and high humidity. During heavy storms, school personnel work to clear drains and place sandbags in an attempt to mitigate water intrusion and flooding.

[26]In 2018, we reported that an estimated 43 percent of districts had tested for lead in school drinking water in 1 of the previous 2 years, and more than one-third of those districts found elevated lead. An estimated 41 percent of districts had not tested. Depending on the size of the school district and other factors, we found that testing and remediation costs can run into the millions of dollars. See GAO, *K-12 Education: Lead Testing of School Drinking Water Would Benefit from Improved Federal Guidance*, GAO-18-382, (Washington, D.C.: July 2018). Subsequently, in October 2018 the America's Water Infrastructure Act of 2018 was enacted, which included provisions to enhance a grant program to test for lead in school drinking water and to establish a grant program to replace water fountains manufactured before 1988. Pub. L. No. 115-270, § 2006, 132 Stat. 3765, 3843.

Figure 11: Examples of Addressing and Mitigating Health Hazards at Public Schools

An asbestos warning posted in a school in Michigan.

White board and screen placed on top of an old chalkboard so as to not disturb asbestos in the wall in a school in Florida.

Standing water after a storm outside a school in Florida. School personnel work to clear drains and place sandbags in an attempt to mitigate water intrusion and flooding.

Students are provided bottled water in most schools in an urban district because officials said they had concerns about water quality.

Source: GAO. | GAO-20-494

Security

In 13 of the 16 districts we visited, officials told us that security has become a top priority, though the specific measures they took to update their security features varied considerably (see fig. 12). One high school

we visited recently experienced a school shooting. District officials said they were implementing a variety of new security initiatives, first at the high school, and then at all other schools in the district. In the high school, officials applied a specialized film to exterior windows to make them bullet resistant. The school has a new security vestibule where visitors wait before entering the school, and staff placed comment boxes throughout the school encouraging students to submit safety tips. In Michigan, we visited a middle school that installed additional barricades on classroom doors, and trained students on how to use them during lockdown drills. In California, we visited an elementary school that added exterior windows to the front office so staff could see visitors approaching, and installed a lockdown alarm button.

Figure 12: Examples of Security Systems and Features at Public Schools

Metal detectors at a school entrance in Maryland.

Exterior fencing at a school in California.

Door hardware that allows the door to be locked quickly in an emergency at a school in California.

A security notice, indicating video surveillance, posted outside of a school in Florida.

A supplemental barricade on a classroom door in a school in Michigan. Students are trained on how to use this in an emergency.

A button that locks exterior doors in the hallway of a Florida school.

A classroom door with a remote locking mechanism in a Rhode Island school.

Source: GAO. | GAO-20-494

Officials from some districts we visited said they prioritized security over failing building systems. For example, one district in Rhode Island where we observed problems with key building systems, including ceiling damage from a leaking roof, broken windows, and holes in the walls and foundation of a school building, installed new security features throughout

their schools. These included equipping classroom doors with electronic lockdown mechanisms that staff can activate remotely. The district updated the main entrance with heavy, reinforced doors and bulletproof glass. In a district in Florida, we visited an elementary school that updated security systems, including installing new cameras. This was despite the school having major challenges with its HVAC system that require maintenance staff to go up to the roof every day to adjust the air conditioning. In addition, we observed multiple buckets throughout the school to collect water leaking through the roof, and the principal described how it frequently “rained” in her office. District officials said they are seeking state funding to renovate the entire school, but decided to first address security updates because all classrooms have exterior doors, making it difficult to control access to the school. In this same district, officials told us they had recently renovated the middle-high school and ensured that all classrooms had “hard corners”—spaces where students could congregate and not be visible to an active shooter in the hallway.

Technology

Officials in many school districts we visited said that ensuring adequate access to technology was necessary for students to be successful academically (see fig. 13). All schools we visited had WiFi access, though officials in one rural district in New Mexico described access as spotty. The majority of schools we visited provided a laptop or tablet to all or almost all students or had a goal to do so. Officials in a district in California said their most important project of the past decade was to update their fiber optic capability to have a robust WiFi network. All students in this district receive a laptop or tablet beginning in second grade, and officials said these updates allowed students to easily use devices in school. In some school districts that did not provide individual devices, schools had portable technology carts to store and charge devices, so students could access them as needed.

Figure 13: Examples of Technology at Public Schools

An audio system in a California school, allowing students to better hear the teacher.

A Maryland classroom equipped with a microphone and other technology to enable students to remotely attend community college classes.

A digital interactive table in the recreation room of a Florida school.

Portable technology carts to store and charge devices in a school in Michigan.

A projector and speakers for showing movies and playing music in a renovated cafeteria in a school in Maryland.

Source: GAO. | GAO-20-494

Officials in districts we visited also said they use technology to enhance educational offerings. For example, a high school in Maryland equipped a classroom with cameras and a microphone so students could attend

community college classes remotely. When renovating schools, some officials told us they incorporate and anticipate technology needs. For example, a newly renovated school in Florida installed electrical outlets on table surfaces in the media center and microphones in all classrooms so students could hear teachers better. At a newly renovated school in Maryland, officials installed a projector and sound system in the cafeteria for students to watch movies and listen to music during lunch, which they said created calmer lunch breaks.

Other Modernization Projects

Officials in districts we visited said they chose among other competing facility priorities based on available funding as well as conditions at individual schools, such as the age and condition of buildings, timeframe constraints, public opinion, space constraints, and enrollment projections. In school districts we visited that reported having local taxes or bond funds available for facility projects, officials described both the need to address the condition of basic building systems and the need to renovate schools with modern educational spaces and features. For example, officials in a Rhode Island district said they are using most of the approximately $300 million in their 5-year capital plan to ensure schools are safe, warm, and dry. These district officials estimated their school facilities need over $1 billion in updates and replacements to key building systems, based on a recent assessment.[27] However, they said they are using 25 percent of available capital funds to modernize educational spaces, such as collaborative workspaces, student common areas, and outdoor classrooms (see fig. 14 for examples of school modernizations in districts we visited). Officials said that participants in public forums preferred educational enhancements over facility repairs. In this same district, officials said they prioritized system repairs they can complete over the summer because the district does not have designated swing spaces to accommodate students during the school year.

[27]This estimate is based on a different assessment than the Rhode Island statewide assessment in 2017 referenced earlier in this report. Subsequent to the statewide assessment, the district conducted a supplemental district-specific assessment.

Figure 14: Examples of Enhancements to Public School Facilities to Modernize Spaces

An outdoor classroom in a Florida school.

A greenhouse in a school in New Mexico.

A sign in a California school explaining changes made during a recent renovation.

Acoustical panels dampen cafeteria noise levels in a Maryland school.

A student lounge and indoor gym in a Florida school.

An outdoor amphitheater at a California school.

A hallway lounge at a newly renovated school in Maryland.

Source: GAO. | GAO-20-494

In a district in Florida, officials similarly described using the funding from a $1 billion bond for school facilities to address health and safety concerns, HVAC issues, and roofing. They balanced these building system repairs with projects to modernize buildings, including increasing natural light by replacing the windows, upgrading technology to support engineering and robotics programs, and creating open and collaborative spaces. See textbox for examples of how school officials told us school renovations improved student experiences.

Spotlight: School Renovations that Improved Student Experience

In two districts we visited, school officials told us how newly renovated schools had improved their students' experiences. At one elementary school we visited, the principal told us that he has noticed improvements in attendance, parent engagement, and student academic performance since the renovation. In a high school we visited, the principal told us that the students took a lot of pride in their new building, and that although the school had been previously under enrolled, the ninth grade class is at capacity, which he attributed to the renovation.

Left: The renovated cafeteria and auditorium in the elementary school, with acoustical panels to dampen noise levels. Right: The renovated dance studio at the high school, which the principal said has increased participation in the dance program.

Source: GAO (photos) and discussions with school and district officials. | GAO-20-494

Additionally, several districts we visited considered enrollment and building capacity to help prioritize projects, but they faced different challenges. Specifically, some districts experienced space constraints and needed to ensure sufficient space for all students, while others had the opposite challenge of maintaining schools that were under-enrolled (see text box). In a district in California, officials said they built nine schools in the past decade because of the increasing student population. At a high school in Maryland, the principal said his priority was ensuring sufficient space because the school was at capacity and he was struggling to find additional classrooms and furniture. Due to population fluctuations at a nearby military installation, he said he often turns offices and workspaces into classrooms and vice versa. Conversely, in a district

we visited in Michigan, officials said they struggled with the inefficiencies of maintaining school facilities with low enrollment because closing schools can be difficult, given how it can affect currently enrolled students and neighborhoods.

Spotlight: Shortage of Space at a Rural High School

In a rural school district we visited, officials described the only high school as too small for their enrollment, which negatively affected students' education. For example, due to lack of space, 9th graders attended school in a different building and took buses to the main high school for electives and extracurricular activities, presenting logistical challenges for students and teachers. Not all interested students could enroll in popular vocational programs due to lack of space, which officials said was affecting student engagement and potentially leading students to drop out. Active classroom and utility spaces sometimes doubled as storage space, due to limited space within the school. Officials said they are applying for state funding to renovate the high school to better serve their students and community.

Left: When the plumbing stopped working in old bathrooms, officials said they used the bathrooms for storage. Right: The electric utility room is used for storage, which school officials said is against state code.

Source: GAO (photos) and discussions with school and district officials. | GAO-20-494

About Half of Districts Primarily Relied on Local Funding for School Facilities

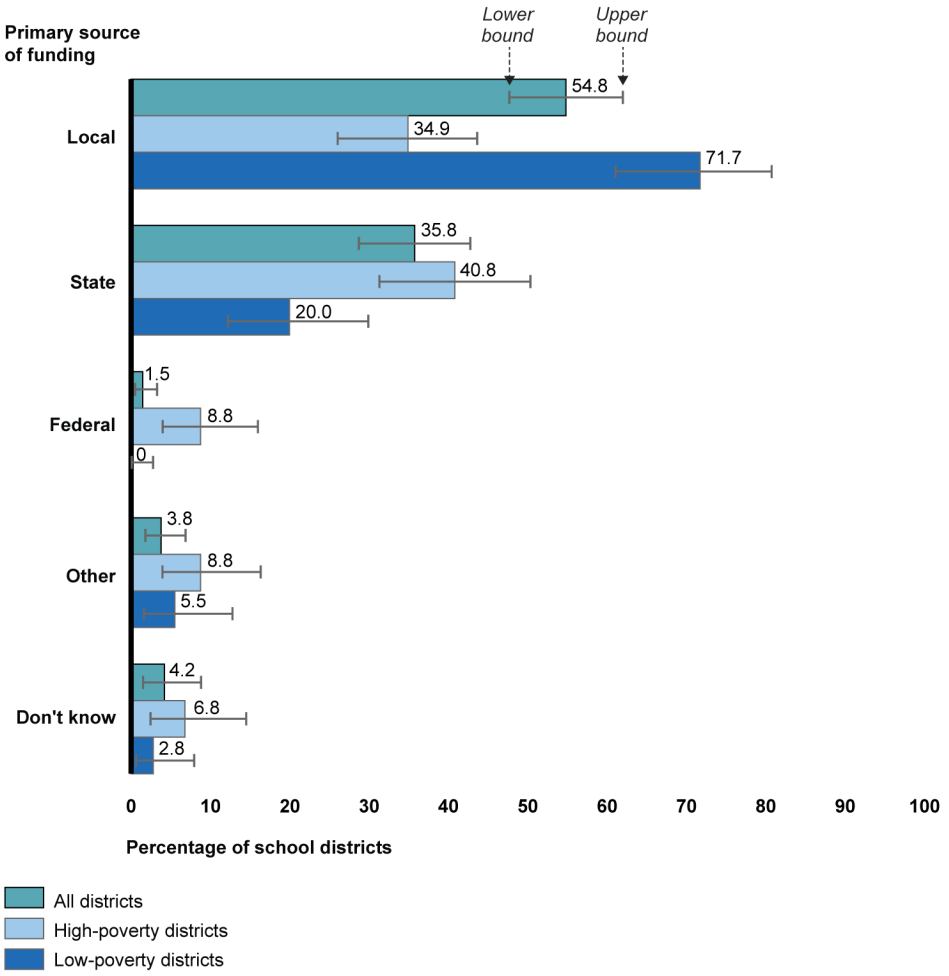
Based on our survey of school districts, funding for school facilities primarily came from local sources for about half of school districts. Specifically, an estimated 55 percent of districts used local funding as their primary source for school facilities, compared to state (36 percent)

and federal (1 percent) funding.[28] Based on our survey analysis, we found significant differences in the primary funding sources for school facilities for high-poverty and low-poverty districts. Specifically, high-poverty districts more commonly relied on state funding to address facility needs than low-poverty districts, whereas low-poverty districts more commonly relied on local funding (see fig. 15).[29]

[28]An estimated 4 percent of school districts used other funding as their primary source for school facilities issues, and another 4 percent did not know their primary funding source. Other funding could include districts that used local funding and state funding equally, based on our survey responses.

[29]We did not find significant associations between other district-level characteristics we examined—e.g., locale or size—and districts' primary source of funding for facilities projects.

Figure 15: Estimated Percentage of School Districts by Primary Source of Funding for Public School Facilities

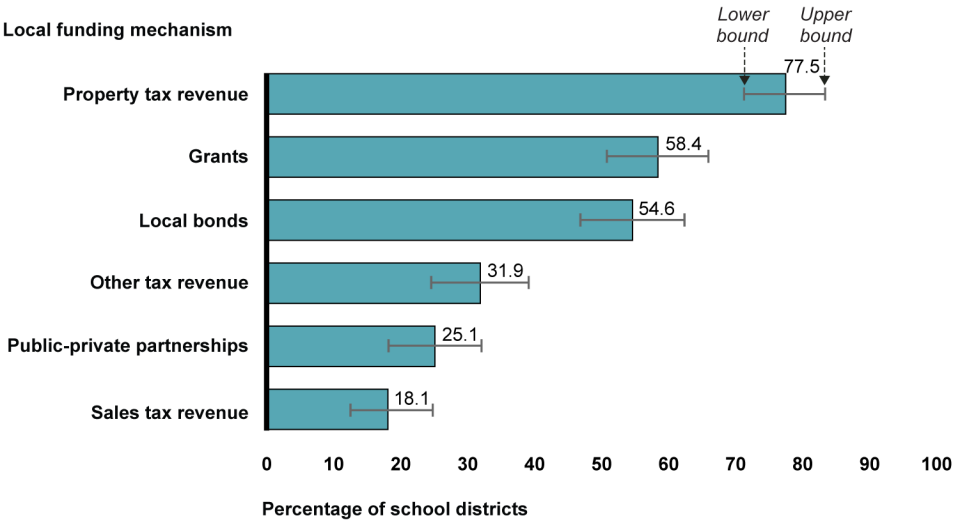


Source: GAO analysis of school district survey data. | GAO-20-494

Note: GAO administered the survey from August to October 2019. The thin bars display the 95 percent confidence interval for each estimate. High-poverty refers to districts in which more than 75 percent of the students were eligible for free or reduced-price lunch. Low-poverty refers to districts in which 25 percent or less of the students were eligible for free or reduced-price lunch.

School districts reported using several funding mechanisms to access local funding for school facilities projects. The most common was property taxes, which an estimated 77 percent of all school districts used for school facilities. Other local funding came from grants, bonds, other taxes, and public-private partnerships (see fig. 16).

Figure 16: Estimated Percentage of School Districts Using Various Local Funding Mechanisms for Public School Facilities



Source: GAO analysis of school district survey data. | GAO-20-494

Note: GAO administered the survey from August to October 2019. The thin bars display the 95 percent confidence interval for each estimate.

Similar to our findings on the sources of school facilities funding, based on our survey analysis we found significant differences in the local funding mechanisms used by high-poverty and low-poverty districts. Specifically, high-poverty districts used property taxes less commonly than low-poverty districts. As noted above, high-poverty districts instead more commonly relied on state funding to address facility needs. We also analyzed federal data on school district expenditures for school facilities and found differences by poverty level (see text box).

Spotlight: Federal Data on School District Expenditures for Capital Construction

Each year, Education collects data on school district expenditures for capital construction. In school year 2015-16, this spending totaled $44.6 billion. We analyzed these data by school district characteristics:

- **Poverty:** Capital construction expenditures, on average, were about $300 less per student in high-poverty districts ($719 per student) compared to low-poverty districts ($1,016). About 1.5 million more students attended school in high-poverty districts than low-poverty districts in 2015-16. Low-poverty districts spent about $1 billion more on capital construction than high-poverty districts that year.
- **Size:** Capital construction expenditures per student were similar in the largest (by number of students enrolled) 100 districts compared to smaller districts. Both groups of districts, on average, spent $837 per student on capital construction in school year 2015-16.
- **Locale:** Capital construction expenditures per student were similar, on average, for urban ($838 per student) and rural districts ($834).

Source: GAO analysis of the Department of Education (Education) Local Education Agency Finance Survey. | GAO-20-494

Note: School year 2015-16 data were the most recent available at the time of our analysis. High-poverty refers to districts in which more than 75 percent of the students were eligible for free or reduced-price lunch. Low-poverty refers to districts in which 25 percent or less of the students were eligible for free or reduced-price lunch. Urban includes both city and suburban classifications and rural includes both rural and town classifications.

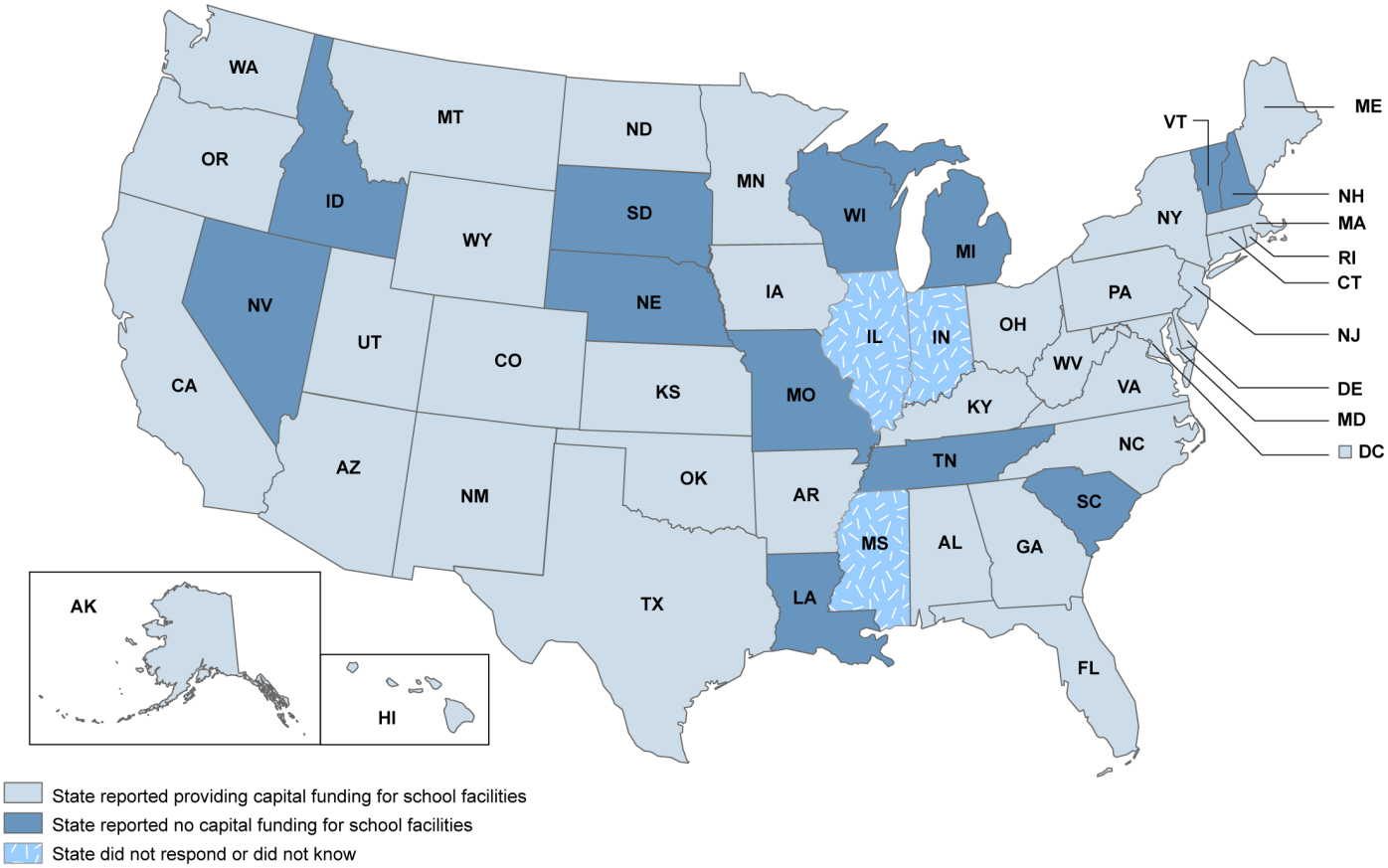
Officials in school districts we visited described various challenges they faced in securing funding for school facilities and how they have managed with limited funding. For example, officials in a Michigan district said the district had $1.5 billion in outstanding bond repayments and state borrowing related to bond repayments. As a result, the district is unable to issue an additional secured bond to fund new school facilities projects. According to officials, Michigan does not provide state-level funding for school facilities, so the district funded some recent school facilities projects using general education surpluses resulting from staff vacancies. However, as the district hired teachers and other staff, funding for facilities will decline, further limiting the district's ability to address issues with school facilities. That district has also deferred maintenance in order to handle emergency repairs, according to officials. Officials in a high-poverty district in one state we visited said their tax base generates minimal local revenue for school facilities. According to officials, the district is mostly dependent on state funding. In the past decade, the state established a partnership between various public entities, which provided $1 billion to the district to address school facility needs, according to district officials. Officials said the funding through this partnership was enough to renovate about 25 schools. However, officials estimated the district has about $5 billion in unmet needs, and its 2012 facilities condition assessment recommended it consider replacing 50 schools.

We also visited districts that have consistently had access to funding for school facilities. For example, officials in one low-poverty California district said their district is generally able to obtain funds needed for school facilities projects, primarily through local taxes and passing general obligation bonds. Officials said there are currently few challenges with the condition of the district's school facilities because of routine and preventive maintenance.

State Support for School Facilities Varied Within and Across States

Though school districts most commonly used local funding to address school facility needs, 36 states provided some level of capital funding to school districts for school construction or renovations, based on our state survey (see fig. 17). In addition, states reported using various criteria to determine funding for capital projects, including the condition of a district's schools (23 states), type of project, such as HVAC or fire safety (22), and size of the student population (18). Fewer states (17) reported providing districts with funding for maintenance and operations—used for routine upkeep and replacement of building system parts—separate from general education funding.

Figure 17: State-provided Capital Funding for Public School Facilities



Sources: GAO analysis of state survey data; Map Resources (map). | GAO-20-494

Note: Illinois and Mississippi did not respond to our survey and Indiana officials responded that they did not know if the state provided capital funding for school facilities.

State support for school facilities similarly varied within and among the six states that we visited. Five of the six states we visited reported providing state-level capital funding for school facilities, although the amount and mechanisms differed. For example, according to state officials, New Mexico has a capital fund for schools supported through taxes on the oil and gas industry and bases its state funding on a school's condition. These officials described how New Mexico assesses and ranks all schools based on the condition of their facilities, and funds projects starting with the highest priority school on the list, until each year's funds are depleted. The state uses capital funds to match local dollars. The percentage of a project's cost covered by the state depends on the

district's ability to raise local funds. In one district we visited, the state pays 100 percent.

Florida targets funding for school facilities to rural districts and charter schools, both of which have limited access to local funding sources such as property taxes, according to officials. These officials said the state has a specific program to support capital projects in rural districts, and other funding—generated from taxes on landlines and utilities—has in recent years gone to charter schools.[30] In California, districts receive state funding based on the order the state receives eligible applications, until funds are depleted, according to state officials. Michigan officials said the state does not fund school facilities projects at the state level, although the state has a program to review school districts' local bond measures. The state does not require school districts to submit their bonds for state approval, but doing so allows the district to access the state's credit rating, which usually lowers the district's interest rate, among other benefits, according to these officials.

In three states we visited, state officials we interviewed told us that financial support for capital projects may fluctuate each year depending on availability of state funding. For example, Rhode Island officials said that after the 2007-2009 recession, the state legislature stopped funding school facilities until 2015. This resulted in deferred maintenance in Rhode Island's schools that the state and school districts now need to address in addition to any new capital projects, according to officials.

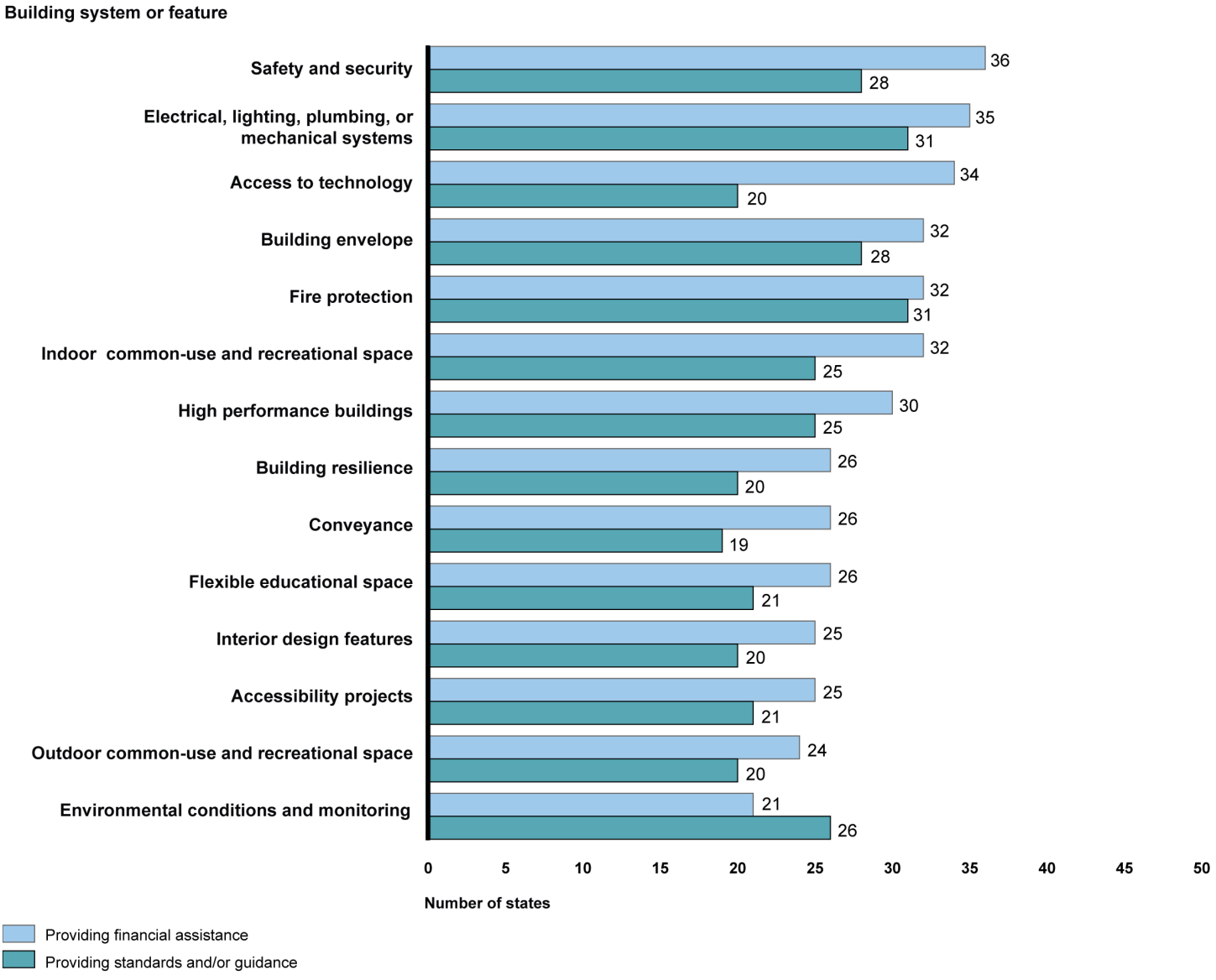
Based on our state survey, five states require districts to use a portion of their general education funding for maintenance and operations. Three of these states reported requiring districts to use 3 percent or less of their general education funding for this purpose, one state reported requiring districts to use 6 percent, and one state did not know what percent was required. Officials in Rhode Island said they have a new policy to require districts to set aside a portion of the state funds they receive for maintenance and operations to protect the state's increasing investment in school facilities, and that the state is phasing in the requirement over 5 years. Officials in New Mexico said that while they do not require this type of set aside, they evaluate how well districts maintain their facilities, and

[30]Charter schools are public schools established under charters that are granted autonomy from certain state and local laws and regulations in exchange for increased accountability. For information on school facilities in charter school districts, see app. IV.

districts that inadequately maintain them may be ineligible for some types of state facilities funding.

Many states also reported that they considered state-level priorities for school facilities when providing funding and guidance to school districts. Based on our survey, more than half of states provided financial support, as well as standards and guidance, for specific building systems and features of school facilities (see fig. 18).

Figure 18: State Financial Support or Standards and Guidance Provided to Public School Districts for Features in School Facilities



Source: GAO analysis of state survey data. | GAO-20-494

Note: Mississippi and Illinois did not respond to our survey. Data in this figure are based on the 49 respondents. Building envelope includes exterior walls, windows, doors, and roofing. High performance buildings includes building automation and energy management systems. Building resilience is the ability to withstand or recover from natural disasters. Environmental conditions and monitoring includes air and water quality monitoring, as well as addressing exposure to asbestos, lead, and mold.

State funding and guidance related to state-level priorities can affect school district decisions on facilities. For example, Rhode Island approved a $250 million state bond for school facilities in 2018, and will provide higher reimbursements for district expenditures on projects reflecting state priorities, such as health and safety and decreasing overcrowding, according to state officials. In two rural districts within two states, district officials told us they cannot afford to undertake capital projects without state funding, and therefore have to balance state requirements with local needs and preferences for their facilities. For example, one district in New Mexico opted to renovate an existing gym using state matching funds, rather than fully replace it, because this allowed the district to maintain existing square footage. According to officials in that district, the state developed standards for how large a gym can be and still receive state funding for a full replacement, and the district prioritized renovating and maintaining the larger existing space instead.

Agency Comments and Third Party Views

We provided a draft of this report to the Department of Education (Education) for review and comment. We also provided selected draft excerpts to relevant officials we interviewed in state agencies and school districts. Education as well as several state and district officials provided technical comments, which we incorporated as appropriate.

We are sending copies of this report to the appropriate congressional committees, the Secretary of Education, and other interested parties. In addition, the report is available at no charge on the GAO website at https://www.gao.gov.

If you or your staff have any questions about this report, please contact me at (617) 788-0580 or nowickij@gao.gov. Contact points for our Offices of Congressional Relations and Public Affairs may be found on the last page of this report. GAO staff who made key contributions to this report are listed in appendix V.

Jacqueline M. Nowicki, Director
Education, Workforce, and Income Security Issues

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Chairman
The Honorable Patty Murray
Ranking Member
Committee on Health, Education, Labor, and Pensions
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The Honorable Tom Udall
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United States Senate

Appendix I: Objectives, Scope, and Methodology

In this report, we examined: (1) the common facility condition issues school districts identify in public schools and how they have done so and (2) school districts' highest priorities for their school facility renovations and updates, and how districts and states fund them.[1] To address these objectives, we used the following methodologies, which we describe in detail below:

- Surveyed all 50 states and the District of Columbia.
- Surveyed a nationally representative sample of K-12 public school districts.
- Visited 16 school districts in six states and interviewed state, district, and school staff.
- Conducted building walkthroughs at 55 schools (including five charter schools) and observed a standard set of building systems and features in each school.
- Analyzed federal data on district expenditures for capital construction projects.

We took several steps to inform each of our methodologies and provide background for our objectives. To better understand the federal role in school facilities, we interviewed officials from the Department of Education's (Education) National Center for Education Statistics (NCES), as well as Education's Office of Impact Aid Programs and the Office for Civil Rights. During these interviews, we asked officials about their role in collecting information on the condition of school facilities, as well as providing funding and guidance on school facilities, among other topics. We also interviewed officials from the National Association of Federally Impacted Schools and the National Indian Impacted Schools Association to learn about facility concerns in public school districts that receive federal Impact Aid. We reviewed federal documentation including NCES's 2014 report, Condition of America's Public School Facilities: 2012-13 and the Congressional Research Service's 2015 report on federal programs related to school facilities.[2] In addition, we reviewed guidance from the

[1]Our work was not designed to, and cannot be used to, identify potential violations of state or local laws, regulations, or codes.

[2]Department of Education, *Condition of America's Public School Facilities: 2012-2013,* NCES 2014-022, (Washington, D.C.: March 2014), and Congressional Research Service, *School Construction and Renovation: A Review of Federal Programs*, R41142, (Washington, D.C.: November 2015).

Environmental Protection Agency on creating and maintaining healthy and environmentally friendly school facilities.[3]

To better understand assessments of building conditions, as well as to obtain information on school building systems and features, we reviewed the Standard Guide for Property Condition Assessments: Baseline Property Condition Assessment Process, an international standard for assessing the condition of a building. Additionally, we interviewed officials at the 21st Century School Fund, the American Society of Civil Engineers, the Association for Learning Environments, the Center for Cities and Schools at the University of California, Berkeley, the Center for Green Schools, the Council of Chief State School Officers, and the Education Commission of the States.

We used this information to create two lists of building systems and features, which we asked about in our surveys and asked to observe in the schools we visited. Specifically:

- The first list focused on key systems and features that may be necessary to a school building's day to day operations;
- the second list focused on additional or emerging priorities for systems and features that school districts may consider when modernizing school facilities.

We validated these lists of systems and features through survey pretests with facilities personnel in six states. Because some modernization priorities are also key to a school building's day-to-day operations, there are systems and features that appear on both lists (see app. II for a full list of our survey questions, including all systems and features about which we asked school districts). We modified and combined the above lists for our state survey to ask states about their priorities and support for school building systems and features.

Web-based Survey of State Educational and School Facility Agencies

To address both research questions, we designed and administered a web-based survey to all 50 states and the District of Columbia. We sent the survey to the relevant state agency that oversees school facilities, or to the state superintendent of education to be forwarded to the state official best equipped to answer questions related to the condition of

[3]Environmental Protection Agency, *Indoor Air Quality Tools for Schools: Preventive Maintenance Guidance*, EPA-402-K-18-001, (Washington, D.C.: March 2019) and *Sensible Steps to Healthier School Environments*, EPA 908-R-17-001, (Washington, D.C.: April 2017).

school facilities. We conducted the survey between September and December 2019. To obtain the maximum number of responses to our survey, we contacted nonrespondents via email and phone throughout the period the survey was open. In total, 49 states responded to the survey; Mississippi and Illinois did not respond.[4] Data in this report are based on the 49 states that responded, unless otherwise noted.

To ensure the quality and reliability of the survey, we pretested the questionnaire with three states that vary in their level of involvement in school facilities, among other factors. We conducted the pretests to check (1) the clarity and flow of the questions, (2) the appropriateness of the terminology used, (3) if the information could be easily obtained and whether there were concerns about the reliability of data that would be collected, and (4) if the survey was comprehensive and unbiased. We revised the questionnaire based on the pretests. We reviewed responses to assess if they were consistent and contained all of the relevant information.

The survey included open-ended and closed-ended questions about:

- The state's role in assessing the condition of school facilities and the level of information the state has about the condition of school facilities.
- The state's role in providing funding to school districts for school facilities and the factors it considers in determining funding levels.
- The extent to which the state provides standards, guidance and other non-financial resources to school districts about their facilities.
- Whether the state collects information or provides additional assistance to school districts that receive federal Impact Aid funds.

Web-based Survey of School Districts

To address both research questions, we designed and administered a generalizable survey of a stratified random sample of local educational agencies, which we refer to as school districts throughout this report. We sent the survey to school district superintendents to be forwarded to the district official best equipped to answer questions related to the condition of school facilities. The survey included questions about:

[4]We have included the District of Columbia in our count of states.

- School districts' policies and practices regarding whether they conduct facilities condition assessments.
- How often school districts conduct or update these assessments.
- How school districts use the information from assessments to make decisions regarding school repairs, renovations, and replacements.
- The extent to which the school districts were facing issues with the condition of building systems and features within their schools.
- The funding mechanisms that school districts use to address issues with the physical condition of public schools.

We defined our target population to be all school districts in the 50 U.S. states and the District of Columbia that are not under the jurisdiction of the Department of Defense or Bureau of Indian Education. We used the Local Education Agency Universe database from Education's Common Core of Data (CCD) for the 2016-2017 school year as our sampling frame. For the purpose of our survey, we limited the sampling frame to school districts that:

- were located in the 50 states or the District of Columbia;
- had one or more schools and one or more students; and
- were not closed according to the 2016-2017 School Year or preliminary 2017-18 School Year CCD data available just prior to survey deployment.[5]

The resulting sample frame included 17,248 school districts and we selected a stratified random sample of 664 school districts. We stratified the sampling frame into 19 mutually exclusive strata based on urban classification and poverty classification (see table 1). We selected the largest 100 school districts, based on student enrollment, with certainty. To determine the appropriate sample size for the survey, we first determined the minimum sample size needed to achieve precision levels of percentage estimates within plus or minus 10 percentage points, at the 95 percent confidence level, within each of three sub-groups: low, medium, and high-poverty districts. Within each of these poverty sub-groups, we proportionately allocated the sample across the race and urban classification groups. We then increased the sample size within each non-certainty stratum for an expected response rate of 55 percent in

[5]We also excluded school districts classified in the CCD as supervisory union administrative centers or federally operated institutions charged with providing elementary and secondary instruction or services.

order to achieve the necessary number of completed surveys for our desired precision level.

We defined the three locale classifications (i.e., city, suburban, and rural) based on the NCES urban-centric locale codes. The rural classification included school districts classified as either rural or town. To build a general measure of the poverty level for each school district we used the proportion of students eligible for free or reduced-price lunch (FRPL) as indicated in the CCD data and classified these into the following three groups:

- High-poverty: more than 75 percent of students in the school district were eligible for FRPL;
- Mid-poverty: Between 25.1 and 75.0 percent of students in the school district were eligible for FRPL; and
- Low-poverty: 25 percent or fewer students in the school district were eligible for FRPL.

We assessed the reliability of the CCD data by reviewing existing documentation about the data and performing electronic testing on required data elements and determined they were sufficiently reliable for the purposes of our reporting objectives.

Table 1: Description of Sample Frame, Stratification, and Sample Sizes for the Stratified Random Sample of School Districts

	Stratum	Population size (number of districts)	Sample size	Number of completed surveys
1	Largest 100 Schools - Students	100	100	71
2	City - Majority White, High-poverty (>75.0% FRPL)	23	10	7
3	City - Majority White, Mid-poverty (25.1-75.0% FRPL)	445	10	5
4	City - Majority White, Low-poverty (0-25.0% FRPL)	150	11	6
5	City - Majority non-White, High-poverty (>75.0% FRPL)	878	57	23
6	City - Majority non-White, Mid-poverty (25.1-75.0% FRPL)	1204	19	5
7	City - Majority non-White, Low-poverty (0-25.0% FRPL)	74	10	7
8	Suburban - Majority White, High-poverty (>75.0% FRPL)	60	10	5
9	Suburban - Majority White, Mid-poverty (25.1-75.0% FRPL)	1359	20	10
10	Suburban - Majority White, Low-poverty (0-25.0% FRPL)	1101	71	33
11	Suburban - Majority non-White, High-poverty (>75.0% FRPL)	346	24	14
12	Suburban - Majority non-White, Mid-poverty (25.1-75.0% FRPL)	995	17	11
13	Suburban - Majority non-White, Low-poverty (0-25.0% FRPL)	90	10	5
14	Town/Rural - Majority White, High-poverty (>75.0% FRPL)	465	31	22

	Stratum	Population size (number of districts)	Sample size	Number of completed surveys
15	Town/Rural - Majority White, Mid-poverty (25.1-75.0% FRPL)	6602	99	55
16	Town/Rural - Majority White, Low-poverty (0-25.0% FRPL)	1224	79	47
17	Town/Rural - Majority non-White, High-poverty (>75.0% FRPL)	870	57	39
18	Town/Rural - Majority non-White, Mid-poverty (25.1-75.0% FRPL)	1227	19	8
19	Town/Rural - Majority non-White, Low-poverty (0-25.0% FRPL)	35	10	5
	Total	**17,248**	**664**	**378**

Source: GAO, based on Department of Education data. | GAO-20-494

Note: FRPL is the percentage of students eligible to receive free or reduced-price lunch. Approximately 2,200 districts in our sampling frame had missing values for the number of students eligible for FRPL. These schools were captured in the mid-poverty group when creating strata.

We administered the survey from August to October 2019. We identified that 11 of the 664 sampled school districts were closed or had no physical school buildings, so these were removed from the universe and sample. Six of these out of scope sample districts were discovered soon after survey deployment, thus, we were able to replace these six sample districts with the next randomly selected district within the same strata.[6] This resulted in a final in scope population of 17,237 districts and 659 in scope sample districts. We received 378 valid survey responses from this in scope sample resulting in an unweighted response rate of 57 percent and a weighted response rate of 53 percent.

We analyzed the response status to our survey to identify potential sources of nonresponse bias in accordance with best practices in survey research and echoed in Office of Management and Budget, Standards and Guidelines for Statistical Surveys (September 2006). We examined the response propensity of the sampled school districts using both bivariate and multivariate logistic regression models, including several demographic characteristics available for respondents and nonrespondents: urban classification, race, poverty, district size (number of schools and number of students in a district), and the stratification variable that combines these characteristics. We detected a significant association between both strata and number of students within a district and the propensity to respond to our survey. We did not detect a significant association between urban classification, race, or poverty and the response propensity.

[6]We replaced three out of scope sample districts in stratum 5 and one out of scope sample district in each strata 8, 12, and 18 in our sample.

We adjusted for the characteristics significantly associated with response propensity using weighting class adjustments. Specifically, we grouped the predicted response propensity derived from our logistic regression model that includes strata and the number of students using quintiles of the predicted response propensity distribution to form five weighting adjustment groups. We applied nonresponse adjustments to the sampling weights within these groups to form nonresponse adjusted analysis weights used in our survey analyses. Based on the nonresponse bias analysis and resulting nonresponse adjusted analysis weights, we determined that estimates using these weights are generalizable to the population of eligible school districts and are sufficiently reliable for the purposes of our reporting objectives.

We took steps to minimize non-sampling errors, including pretesting draft instruments and using a web-based administration system. We pretested the draft instrument from June to July 2019 with officials in five school districts in different states and with varying characteristics such as size of the student population. In the pretests, we asked about the clarity of the questions and the flow and layout of the survey. Based on feedback from the pretests, we revised the survey instrument. To obtain the maximum number of responses to our survey, and to minimize non-sampling error caused by nonresponse, we sent reminder emails to nonrespondents and contacted some nonrespondents over the telephone.

We express the precision of our particular sample's results as a 95 percent confidence interval (for example, plus or minus 10 percentage points). This interval would contain the actual population value for 95 percent of the samples we could have drawn. As a result, we are 95 percent confident that each of the confidence intervals in this report will include the true values in the study population.

We compared—as appropriate—weighted survey estimates generated for school districts by the school district strata described above. For each subgroup, we produced percentage estimates and standard errors for each level and used these results to confirm the significance of the differences between weighted survey estimates.

School District Visits and School Observations

To address both research questions, we visited six states—California, Florida, Maryland, Michigan, New Mexico, and Rhode Island—from June to September 2019. We selected these states because they varied in the amount and type of funding they provided to school districts for school facilities, the level of information they collected on the condition of school facilities, and for geographic variation. Within these states, we visited 16

school districts, which we selected based on variation in the size and population density of the district, poverty level, racial and ethnic composition, and the receipt of federal Impact Aid funding (see table 2).

Table 2: Demographic Characteristics of Site Visit Districts

District characteristic	Number of districts visited (out of 16)
City	5
Suburban	4
Rural	7
Majority non-White student population	13
High-poverty	8
Mid-poverty	6
Low-poverty	2
Received Impact Aid	8

Source: GAO analysis of Department of Education data. | GAO-20-494

Note: Poverty level is based on the proportion of students eligible for free or reduced-price lunch (FRPL) as indicated in the Department of Education's Common Core of Data. We classified high-poverty as more than 75 percent of students in the school district eligible for FRPL; mid-poverty as between 25.1 and 75.0 percent of students eligible for FRPL; and low-poverty as 25 percent or fewer students eligible for FRPL. The rural classification included school districts classified as either rural or town. Among the 13 majority non-White districts we visited, there was variation in which racial or ethnic group composed a majority of the student population.

Within each district, we visited between two and five schools, depending on the size of the district and logistical considerations. We also visited five charter schools across four states, chosen based on their proximity to a selected school district. In total, we visited 55 schools that varied in grade level, enrollment, physical size, age, and condition.

For resource efficiency, we generally interviewed state and district officials via phone in advance of the site visit, and toured schools with district and school officials.

- States: We interviewed state officials who were knowledgeable about their state's role in funding, assessing, or providing other resources to school districts for school facilities. We discussed the agency's roles and responsibilities related to statewide school facilities condition assessments or data collection initiatives, state-level priorities for school facilities, and funding mechanisms within the state for school facilities.
- School districts: We interviewed school district officials in each district we visited. Similar to our school district survey, we discussed their

policies and practices on facilities condition assessments, how often they conduct or update these assessments, and how they make decisions regarding school repairs, renovations, and replacements. We also asked questions about how the districts prioritize upgrades and repairs to school facilities and the funding mechanisms they use to address issues with the physical condition of public schools.

- School Observations: To select schools in each district, we used CCD data to randomize the list of all schools in the district and selected the first two to four schools with consideration for different grade levels. We then asked district officials to verify that our random selections showed sufficient variety in the age and overall condition of the building. We substituted recommended schools when appropriate to ensure we had appropriate variety in seeing schools of different ages and conditions. When logistically feasible, we visited a nearby charter school as well. We toured schools with a combination of district and school officials. During these visits, we used a data collection instrument to ask officials about school building systems and features that school personnel identified as particularly in need of repair or replacement, as well as new or upgraded systems. We photographed these as appropriate.

Information we gathered from these interviews and observations, while not generalizable, provides insight into the conditions present in the states and school districts we visited at the time of our interviews, and may be illustrative of efforts in other states and school districts.

Federal Data Analysis

To examine expenditures for capital construction by school district characteristics, we analyzed federal data from Education's Local Education Agency Finance Survey for school year 2015-16, the most recent available at the time of our analysis. Education collects these data annually as part of the CCD. State educational agencies provide these data on behalf of their school districts to NCES and the U.S. Census Bureau's Economic Reimbursable Surveys Division. In school year 2015-16, states reported finance data for 96.7 percent of school districts, according to Education's survey documentation.

We analyzed school district data on capital construction expenditures by poverty level, locale, district size, racial demographics, and receipt of federal funding through Impact Aid or Indian education grants. We normalized data across school districts that fell into these different categories by calculating capital construction expenditures per student and per school.

We determined these data were sufficiently reliable for the purposes of our reporting objectives by reviewing relevant documentation, interviewing knowledgeable Education officials, and testing for missing data, outliers, and other potential errors. Through discussions with NCES officials, we determined it was necessary to exclude some school districts from our analysis to develop accurate per pupil and per school calculations. Specifically, we excluded school districts for which the state did not report finance data and school districts where the number of students and schools was zero or missing.

We conducted this performance audit from February 2019 to June 2020 in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Appendix II: Surveys of School Districts and States on School Facilities

This appendix contains the closed- and open-ended questions from our surveys of (1) local educational agencies (referred to in this report as school districts or districts) and (2) state educational and school facility agencies.[1] In some cases, respondents received different questions based on their response to a prior question. For example, school districts that conducted a facilities condition assessment in the last 10 years received additional questions about those assessments, however school districts that had not conducted such an assessment received questions to explain the reasons why. For a detailed discussion of our survey methodologies, see appendix I.

[1]In our surveys, we used the terms “local educational agency” or “LEA.” Throughout this appendix, we replaced those terms with “school district” or “district” for consistency within this report. We also used both surveys to collect information for a separate report on the accessibility of public school facilities for individuals with disabilities. This appendix includes the full surveys used to collect information for both reports.

Survey of School Districts

Characteristics of the School District

1. **How many schools are in your school district?** _____ schools

2. **How many schools in your district were built before 1992 and have not undergone an alteration or addition since that time?** _____ schools _____ Don't know

3. **How many schools in your district were built before 1970 and have not undergone an alteration or addition since that time?** _____ schools _____ Don't know

School District Facilities Assessments

4. **A facilities condition assessment is a systematic inspection of facilities using a standardized method for recording observations (Note: For the purposes of this survey, facilities condition assessments do not include work order or routine maintenance reviews). In the last 10 years (calendar years 2009-2019), has your school district conducted a facilities condition assessment of school facilities?** (select one response)

   _____ Yes
   _____ No
   _____ Don't Know

   a. **How does your school district select schools for these facilities condition assessments?** (select one response)

      _____ We assess every school
      _____ We select a random selection of schools
      _____ We select targeted schools by condition (e.g., by age of school, known condition concerns, planned projects, or complaints)
      _____ We select targeted schools by percentage (e.g., 20 percent of schools in the district are assessed annually so all schools are assessed over a 5-year period)
      _____ Other (please specify below)
      _____ Don't know

      (If Other, open-ended): **Through what other method does your school district select schools to conduct its facilities condition assessments?**

   b. **How frequently does your district conduct its facilities condition assessments?** (select one response)

      _____ Every 1-2 years
      _____ Every 3-5 years
      _____ Every 6 or more years

_____ Conducted once, no plans to reassess
_____ Other (please specify below)
_____ Don't know

(If Other, open-ended): **How would you describe the frequency that your district conducts its facilities condition assessments?**

c. **Who primarily conducts these facilities condition assessments?** (select one response)

_____ School staff
_____ School district staff
_____ State officials
_____ Contractor/professional firm
_____ Other (please specify below)
_____ Don't know

(If Other, open-ended): **Who conducts these facilities assessments?**

d. **Does your district conduct the facilities condition assessments for any of the following purposes?** (select one response per row)

	Yes	No	Don't know
Budget formulation			
Capital planning purposes (i.e., project prioritization)			
Safety and hazard assessments			
Fulfilling a state requirement or mandate			
Assessing equitable access to resources			
In response to complaints or litigation			
Determining physical accessibility			
Providing facilities information to the public			
Disaster planning (e.g., for emergency sheltering)			
Other (please specify below)			

(If Other, open-ended): **What is the other purpose identified above?**

e. **A facilities condition index is the ratio of the total cost to correct identified building deficiencies to the current replacement value of the building. Does your district use a facilities condition index for capital planning purposes (such as for prioritizing projects or formulating capital budgets)?** (select one response)

_____ Yes
_____ No
_____ Don't Know

f. **Is physical accessibility assessed as part of these facilities condition assessments?** (select one response)

_____ Yes
_____ No
_____ Don't Know

g. **Which of the following reasons describe why your district decided not to conduct a facilities condition assessment?**[1] (select one response per row)

	Yes	No	Don't know
Funding is not available to conduct a facilities condition assessment			
Condition is assessed through other mechanisms			
Our district is not responsible for the condition of/addressing deficiencies with school facilities			
Other (please specify below)			

(If Other, open-ended): **What is the other reason identified above?**

5. **In the last 10 years (calendar years 2009-2019), has your district assessed the physical accessibility of its school facilities?** (select one response)

_____ Yes
_____ No
_____ Don't Know

a. **How does your school district select schools to receive a physical accessibility assessment?** (select one response)

_____ We assess every school
_____ We select a random selection of schools
_____ We select targeted schools by condition (e.g., by age of school, known condition concerns, planned projects, or complaints)
_____ We select targeted schools by percentage (e.g., 20 percent of schools in the district are assessed annually so all schools are assessed over a 5-year period)
_____ Other (please specify below)
_____ Don't know

(If Other, open-ended): **Through what other method does your school district select schools to receive a physical accessibility assessment?**

[1]Only districts that responded to question 4 on our school district survey that they had not conducted a facilities condition assessment received this question.

b. **How frequently does your district assess the physical accessibility of its school facilities?** (select one response)

_____ Every 1-2 years
_____ Every 3-5 years
_____ Every 6 or more years
_____ Conducted once, no plans to reassess
_____ Other (please specify below)
_____ Don't know

(If Other, open-ended): **How would you describe the frequency that your district assesses the physical accessibility of its school facilities?**

c. **Does your district conduct physical accessibility assessments for any of the following purposes?** (select one response per row)

	Yes	No	Don't know
Budget formulation			
Capital planning purposes (i.e., project prioritization)			
Safety and hazard assessments			
Fulfilling a state requirement or mandate			
Assessing equitable access to resources			
In response to complaints or litigation			
Providing school accessibility information to the public			
Other (please specify below)			

(If Other, open-ended): **What is the other purpose identified?**

Features of Schools in Your District

6. **How would you rate the level of priority of the following systems or features when your district updates or renovates its school facilities?** (select one response per row)

	Not a priority	Somewhat a priority	Moderately a priority	Very much a priority	Top priority	Don't know
Telecom systems (e.g., phone, cable, WiFi)						
Safety and security (e.g., cameras, alarms, access control)						
Flexible educational space (e.g., classrooms are adaptable to different needs)						
Sufficient and usable outdoor common-use and recreational space (e.g., outdoor classroom, athletic fields, playgrounds)						

Sufficient and usable indoor common-use and recreational space (e.g., gym, auditorium, cafeteria)	
Access to natural light	
Student access to technology (e.g., laptops or tablets)	
High performance, sustainable buildings or systems (e.g., building automation, energy management systems, solar, wind, geothermal systems)	
Building resilience (i.e., ability to withstand or recover from natural disasters)	
Environmental conditions and monitoring (e.g., air quality, water quality, and/or exposure to asbestos, lead, mold)	
Interior design features (e.g., acoustics, furniture and/or finishes, such as paint or flooring)	
Accessibility projects (e.g., features or retrofits for physical accessibility, applying Universal Design principles)	
Other *(please specify below)*	

(If Other, open-ended): **What is the other system or feature identified above?**

7. **Approximately what percentage of schools in your district currently need the following systems or features to be updated or replaced?** (select one response per row)

	None	Less than 25 percent	25 to 49 percent	50 to 74 percent	75 to 100 percent	Don't know
Heating, ventilation, and air conditioning (HVAC) systems						
Structural integrity (e.g., walls, foundation)						
Roofing						
Interior light fixtures						
Exterior light fixtures						
Plumbing						
Indoor air quality monitoring						
Water quality monitoring						
Fire protection (e.g., alarms and suppression systems)						
Electrical systems						
Telecom systems (e.g., phone, cable, WiFi)						

Environmental conditions (e.g., exposure to asbestos, lead, mold)	
Safety and security (e.g., cameras, alarms, access control)	
Windows	
Doors	
Conveyance (e.g., elevators and lifts)	
Other features or retrofits for physical accessibility	
Other *(please specify below)*	

(If Other, open-ended): **What is the other system or feature identified above?**

8. **Approximately what percentage of schools in your district have the following barrier(s) that may impede access to, or use of, a facility for a person with a disability?** (select one response per row)

	None	Less than 25 percent	25 to 49 percent	50 to 74 percent	75 to 100 percent	Don't know
Door hardware that requires tight grasping, pinching, or twisting of the wrist						
Lack of accessible parking						
Main entrance barriers (e.g., a main entrance that includes stairs with no ramp, etc.)						
Multi-story building(s) without a ramp, elevator, or chair lift						
No signs that designate the accessible route and include braille						
Door thresholds that exceed 1/2 inch in height						
Door openings that are less than 32 inches wide						
Protruding objects in circulation paths (circulation paths include interior and exterior walkways, hallways, courtyards, stairways, and landings)						
Toilet room barriers (e.g., no side or rear grab bars, uninsulated lavatory pipes, etc.)						
Cafeteria barriers						
Auditorium barriers (e.g., no wheelchair spaces, etc.)						
Assembly stages requiring steps						
Gymnasium barriers						
Athletic field barriers						
Stadium barriers						
Locker room barriers						
Portable classroom barriers						
Classroom barriers						
Library/media room barriers						

Playground barriers (e.g., mulch or other ground surface barriers, etc.)
Other *(please specify below)*

(If Other, open-ended): **What is the other barrier identified above?**

(Open-ended) **If you would like to provide additional context to your responses to question 8 above, please do so here.**

9. **In your estimation, what percentage of your district's schools have portions of the building with barriers that may limit access for people with disabilities (e.g., the facility has a classroom or common area that cannot be accessed with a wheelchair, etc.)?** (select one response)

   _____ None
   _____ Less than 25 percent
   _____ 25 to 49 percent
   _____ 50 to 74 percent
   _____ 75 to 100 percent
   _____ Don't know

10. **In your estimation, what percentage of your district's schools, due to the number of barriers, are not typically attended by students with physical disabilities?** (select one response)

   _____ None
   _____ Less than 25 percent
   _____ 25 to 49 percent
   _____ 50 to 74 percent
   _____ 75 to 100 percent
   _____ Don't know

(Open-ended) **If you would like to provide additional context to your responses above, please do so here.**

11. **Does your district have an accessibility/ADA transition plan?** (select one response)

   _____ Yes
   _____ No
   _____ Don't Know

12. Is your district planning any of the following actions to improve the physical accessibility of its school facilities (including school grounds) in the next 3 calendar years? (select one response per row)

	Yes	No	Don't know
Large-scale renovations or modernizations			
Small-scale upgrades, such as door hardware and signage			
Accessibility evaluations by district officials			
Accessibility evaluations by a contractor or outside organization			
Other (*please specify below*)			

(If Other, open-ended): **What is the other action identified above?**

13. How challenging, if at all, are the following factors to your district's efforts to improve the physical accessibility of its school facilities? (select one response per row)

	Not at all challenging	Somewhat challenging	Moderately challenging	Very challenging	Extremely challenging	Don't know
Age of school buildings						
Other capital improvement needs						
Funding constraints						
Historic designation of school buildings						
Terrain/topography						
Lack of guidance/knowledge of accessibility standards						
Needs of emerging populations of students/ people with disabilities						
Other *(please specify below)*						

(If Other, open-ended): **What is the other factor identified above?**

(Open-ended) **What additional guidance or training related to accessibility standards would be helpful?**

14. Does your district have a designated Americans with Disabilities Act (ADA) Coordinator to receive and respond to ADA complaints or concerns? (select one response)

_____ Yes
_____ No
_____ Don't Know

a. **Does your district's ADA Coordinator work with your district's facilities department if and when they receive complaints or concerns?** (select one response)

_____ Yes
_____ No
_____ Don't Know

i. **How often do your district's ADA Coordinator and facilities department work together to respond to ADA complaints and concerns?** (select one response)

_____ On an as needed basis
_____ Often (on a weekly basis)
_____ Regularly (at least once a month)
_____ Infrequently (less than once a month)
_____ Don't know

b. **Does your district's facilities department receive and respond to ADA complaints or concerns?** (select one response)

_____ Yes
_____ No
_____ Don't Know

Guidance and Federal Support

15. **Has your facilities department received training on accessibility standards or guidelines?** (select one response)

_____ Yes
_____ No
_____ Don't Know

a. **Would additional training on accessibility standards or guidelines be helpful for you or others in your department?** (select one response)

_____ Yes
_____ No
_____ Don't Know

(Open-ended) **What type of training would be helpful?**

Funding Mechanisms

16. **What is your district's primary method of funding to address facility needs?** (select one response)
_____ Local funding

_____ State funding
_____ Federal funding
_____ Other (*please specify below*)
_____ Don't Know

(If Other, open-ended): **What is the other primary funding source identified above?**

17. **Does your district use any of the following local funding methods to address facility needs?** (select one response per row)

	Yes	No	Don't know
Property tax revenue			
Sales tax revenue			
Other tax revenue			
Local bonds			
Grants			
Public-private partnerships			
Other (*please specify below*)			

(If Other, open-ended): **What is the other local funding method identified above?**

Survey of State Educational and State Facility Agencies

Facilities Condition Assessments

1. **A facilities condition assessment is a systematic inspection of facilities using a standardized method for recording observations. Which of the following options best describes whether your state has collected information through a facilities condition assessment of all or some school facilities in the last 10 years (calendar years 2009-2019)?** (For the purposes of this survey, facilities condition assessments do not include work order or routine maintenance reviews.)[2] (Check one.)

_____ Has conducted a statewide facilities condition assessment
_____ Has required school districts to conduct facilities condition assessments
_____ Both has conducted a statewide assessment and required districts to conduct facilities condition assessments
_____ Has not conducted a facilities condition assessment or required districts to do so
_____ Don't know

a. **When conducting the statewide facilities condition assessments, does your state assess every school or some schools within the state?** (If you selected

[2]The subquestions under question 1 reflect those answered by states that said they had conducted a statewide facilities condition assessment or both had conducted a statewide assessment and required districts to conduct assessments. States that responded that they required school districts to conduct facilities condition assessments received similar questions about the requirements for school district assessments.

"Both…" in 1, please respond to the following questions from the perspective of the statewide assessment.) (Check one.)

_____ Every school
_____ Some schools
_____ Don't Know

i. **How were schools selected for the statewide facilities condition assessments?** (Check one.)

_____ Random selection
_____ Targeted schools by condition (e.g., by age of school, known condition concerns, planned projects, or complaints)
_____ Targeted schools by percentage (e.g., 20 percent of schools within the state assessed annually so all schools are assessed over a 5-year period)
_____ Other
_____ Don't Know

(If Other, open-ended): **Through what other method are schools selected for these facilities condition assessments?**

b. **How frequently does your state conduct facilities condition assessments of public school facilities?** (Check one.)

_____ Every 1-2 years
_____ Every 3-5 years
_____ Every 6 or more years
_____ Conducted once, no plans to reassess
_____ Other
_____ Don't know

(If Other, open-ended): **How would you describe the frequency that your state conducts its facilities condition assessments?**

c. **Who *primarily* conducts these statewide facilities condition assessments?** (Check one.)

_____ State-level staff
_____ Contractor/professional firm
_____ Other
_____ Don't know

(If Other, open-ended): **Who primarily conducts these facilities condition assessments?**

d. **Does your state conduct the statewide facilities condition assessments for any of the following purposes?** (Check one per row.)

	Yes	No	Don't know
Budget formulation			
Capital planning purposes (i.e., project prioritization)			
In response to complaints or litigation			
Safety and hazard assessments			
Providing facilities information to the public			
Disaster planning (e.g., for emergency sheltering)			
Assessing equitable access to resources			
Determining physical accessibility			
Other			

(If Other, open-ended): **For what other purposes does your state conduct the statewide facilities condition assessments?**

e. **A facilities condition index is the ratio of the total cost to correct identified building deficiencies to the current replacement value of the building. Does your state use a facilities condition index for capital planning purposes (such as for prioritizing projects or formulating capital budgets)?** (Check one.)

_____ Yes
_____ No
_____ Don't Know

f. **Is physical accessibility assessed as part of these facilities condition assessments?** (Check one.)

_____ Yes
_____ No
_____ Don't Know

i. **Which of the following options best describes whether your state has assessed physical accessibility of school facilities in the last 10 years (calendar years 2009-2019) for all or some school facilities?** (Check one.)

_____ Has conducted a statewide physical accessibility assessment
_____ Has required school districts to conduct physical accessibility assessments
_____ Both has conducted a statewide assessment and required districts to conduct physical accessibility assessments
_____ Has not conducted a physical accessibility assessment or required districts to do so
_____ Don't know

ii. **Is physical accessibility assessed for every school or some schools in your state?** (If you selected "Both…" please respond to the following questions from the perspective of the statewide physical accessibility assessment.) (Check one.)

_____ Every school
_____ Some schools
_____ No specific requirement for how many schools must be assessed
_____ Don't Know

iii. **How were schools selected for the physical accessibility assessments?** (Check one.)

_____ Random selection
_____ Targeted schools by condition (e.g., by age of school, known condition concerns, planned projects, or complaints)
_____ Targeted schools by percentage (e.g., 20 percent of schools within the state assessed annually so all schools are assessed over a 5-year period)
_____ Other
_____ Don't Know

(If Other, open-ended): **Through what other method are schools selected for these physical accessibility assessments?**

iv. **How frequently is the physical accessibility of school facilities assessed?** (Check one.)

_____ Every 1-2 years
_____ Every 3-5 years
_____ Every 6 or more years
_____ Once, no plans to reassess
_____ Other
_____ Don't know

(If Other, open-ended): **How would you describe the frequency that physical accessibility is assessed?**

v. **Is physical accessibility assessed for any of the following purposes?** (Check one per row.)

	Yes	No	Don't know
Budget formulation			
Capital planning purposes (i.e., project prioritization)			
In response to complaints or litigation			
Safety and hazard assessments			

Providing school accessibility information to the public
Assessing equitable access to resources
Other

(If Other, open-ended): **For what other purposes is physical accessibility assessed?**

g. **Does your state collect information from the district-level facilities condition assessments?**[3] (Check one.)

_____ Yes
_____ No
_____ Don't Know

(Open-ended): **What major findings or trends from the district-level facilities condition assessments did your state identify regarding the condition of schools?**

h. **Which of the following reasons describe why your state has not conducted a facilities condition assessment or required districts to do so?**[4] (Check one per row.)

	Yes	No	Don't know
Funding is not available to conduct a facilities condition assessment			
Condition is assessed through other mechanisms			
Districts are primarily responsible for the condition of/addressing deficiencies with school facilities			
Other			

(If Other, open-ended): **For what other reason has your state not conducted a facilities condition assessment or required districts to do so?**

(If Condition is assessed through other mechanisms, open-ended): **What other mechanisms does your state use to assess condition?**

i. **Is your state planning to conduct a statewide facilities condition assessment in the next 3 years?**[5] (Check one.)

_____ Yes
_____ No

[3]Only states that responded to question 1 on our state survey that they required school districts to conduct facilities condition assessments received this question.

[4]Only states that responded to question 1 on our state survey that they had not conducted a facilities condition assessment nor required districts to do so received this question.

[5]Only states that responded to question 1 on our state survey that they had not conducted a facilities condition assessment nor required districts to do so, or did not know, received this question. States that indicated they are planning to conduct a statewide assessment received a follow-up question on the reasons they are planning to do so.

_____ Don't Know

Features and Systems of K-12 Schools

2. **Over the last 5 years, has your state provided school districts with financial support, technical assistance, or standards and/or guidance for any of the building systems or features listed below?** (For "financial support", please consider any funding that your state provided to school districts specifically in support of the systems or features below, separate from general education funding streams.) (Check all that apply in each row.)

	Financial support	Technical assistance	Standards and/or guidance	None	Don't know
Building envelope, including exterior walls, windows, doors, and roofing					
Electrical, lighting, plumbing, or mechanical systems (e.g., heating, ventilation, and air conditioning (HVAC))					
Fire protection (e.g., alarms and suppression systems)					
Safety and security (e.g., cameras, alarms, access control)					
Access to technology (e.g., laptops, tablets, phone, cable, and/or WiFi)					
Flexible educational space (e.g., classrooms are adaptable to different needs)					
Sufficient and usable *outdoor* common-use and recreational space (e.g., outdoor classroom, athletic fields, playgrounds)					
Sufficient and usable *indoor* common-use and recreational space (e.g., gym, auditorium, cafeteria)					
Interior design features (e.g., acoustics, furniture and/or finishes, such as paint or flooring)					
High performance, sustainable buildings or systems (e.g., building automation, energy management systems, solar, wind, geothermal systems)					
Building resilience (i.e., ability to withstand or recover from natural disasters)					
Environmental conditions and monitoring (e.g., air quality, water quality, and/or exposure to asbestos, lead, mold)					
Conveyance (e.g., elevators and lifts)					
Accessibility projects (e.g., features or retrofits for physical accessibility, applying Universal Design principles)					
Other					

(If Other, open-ended): **For what other features has your state provided school districts with financial support, technical assistance, or standards and/or guidance for the building systems?**

Funding School Facilities – Capital Projects

3. **Does your state provide funding to districts specifically for school facilities capital projects (e.g., new construction or renovations), as defined by your state?** (Check one.)

_____ Yes
_____ No
_____ Don't Know

a. **How does your state determine the levels of funding for capital projects for each district?** (Check one.)

_____ By district request
_____ Funding formula
_____ Combination of district request, funding formula, and/or other methods
_____ Other
_____ Don't Know

(If Other, open-ended): **Through what other method does your state determine the levels of funding for capital projects for each district?**

b. **Does your state consider the following variables/factors when determining levels of funding for capital projects for each district?** (Check one per row.)

	Yes	No	Don't know
By order of request until all available funds are used			
Geographic distribution			
Size of the student population			
Condition of school facilities (based on facilities condition assessments, facilities condition indices, and/or other mechanisms)			
Type of project (e.g., fire, safety, HVAC, energy)			
Cost of the request			
Equity (e.g., percent of students eligible for free or reduced price lunch, students with disabilities, or English Language Learners)			
District received funding in prior years			
District's bonding capacity			
State's bonding capacity			
Other			

(If Other, open-ended): **For what other variables/factors does your state consider when determining levels of funding for capital projects for each district?**

(Open-ended)**: How does your state consider the factors selected above to determine levels of funding for capital projects for each district?**

c. **Does your state use any of the following methods to fund new construction or capital improvements of school facilities?** (Check one per row.)

	Yes	No	Don't know
Allocated funding from state legislature			
Sales tax			
Excise tax			
State-level bond initiative			
Other tax revenue			
State lottery funds			
Public-private partnerships			
Other			

(If Other, open-ended): **What other methods does your state use to fund new construction or capital improvements of school facilities?**

4. **Does your state have criteria (e.g., a definition or monetary threshold) for when facilities new construction or improvement projects must use capital funding (instead of general education or maintenance and operations funding)?** (Check one.)

_____ Yes
_____ No
_____ Don't Know

(Open-ended): **How would you describe the criteria for when projects require capital funding?**

5. **Does your state have laws or regulations that set limitations on district bonding capacity?** (Check one.)

_____ Yes
_____ No
_____ Don't Know

(Open-ended): **How would you describe your state's laws or regulations on district bonding capacity?**

Funding School Facilities – Maintenance and Operations

6. **Does your state provide funding to districts, separate from general education funding streams, specifically for maintenance and operations of school facilities?** (Check one.)

_____ Yes
_____ No
_____ Don't Know

a. **How does your state determine the levels of maintenance and operations funding for each district?** (Check one.)

_____ By district request
_____ Funding formula
_____ Combination of district request, funding formula, and/or other methods
_____ Other
_____ Don't Know

(If Other, open-ended): **Through what other method does your state determine the levels of maintenance and operations funding for each district?**

b. **Does your state consider the following variables/factors when determining levels of maintenance and operations funding for each district?** (Check one per row.)

	Yes	No	Don't know
By order of request until all available funds are used			
Geographic distribution			
Size of the student population			
Condition of school facilities (based on facilities condition assessments, facilities condition indices, and/or other mechanisms)			
Type of project (e.g., fire, safety, HVAC, energy)			
Cost of the request			
Equity (e.g., percent of students eligible for free or reduced price lunch, students with disabilities, or English Language Learners)			
District received funding in prior years			
District's bonding capacity			
State's bonding capacity			
Other			

(If Other, open-ended): **For what other variables/factors does your state consider when determining levels of maintenance and operations funding for each district?**

(Open-ended)**: How does your state consider the factors selected above to determine levels of maintenance and operations funding for each district?**

c. **Does your state use any of the following methods to fund maintenance and operations of school facilities, apart from general education funding streams?** (Check one per row.)

	Yes	No	Don't know
Allocated funding from state legislature			
Sales tax			
Excise tax			

State-level bond initiative
Other tax revenue
State lottery funds
Public-private partnerships
Other

(If Other, open-ended): **What other methods does your state use to fund maintenance and operations of school facilities, apart from general education funding streams?**

7. **Does your state require (e.g., through statute or regulation) districts to dedicate a percentage of the state general education funding towards maintenance and operations of school facilities?** (Check one.)

_____ Yes
_____ No
_____ Don't Know

a. **As of August 2019, approximately what percentage of general education funding does your state require districts to dedicate towards maintenance and operations of school facilities?** (Check one.)

_____ 0.1% to 3%
_____ 3.1% to 6%
_____ Over 6%
_____ Don't Know

Funding School Facilities – Charter School Facilities

8. **Does your state provide funding to charter schools specifically for construction, improvement, or maintenance and operations of school facilities?** (Check one.)

_____ Yes, the state provides direct funding to charter schools
_____ Yes, the state provides indirect funding to charter schools through the non-charter district
_____ No, the state does not provide funding to charter schools or does not have charter schools
_____ Don't Know

a. **How does your state determine the levels of funding for construction, improvement, or maintenance and operations of charter school facilities?** (Check one.)

_____ By request made by charter school
_____ Funding formula
_____ Combination of charter request, funding formula, and/or other methods

_____ Other
_____ Don't Know

(If Other, open-ended): **Through what other method does your state determine the levels of funding for charter schools?**

b. **Does your state consider the following variables/factors when determining levels of funding for charter schools?** (Check one per row.)

	Yes	No	Don't know
By order of request until all available funds are used			
Geographic distribution			
Size of the student population			
Condition of school facilities (based on facilities condition assessments, facilities condition indices, and/or other mechanisms)			
Type of project (e.g., fire, safety, HVAC, energy)			
Cost of the request			
Equity (e.g., percent of students eligible for free or reduced price lunch, students with disabilities, or English Language Learners)			
Charter school received funding in prior years			
District's bonding capacity			
State's bonding capacity			
Other			

(If Other, open-ended): **For what other variables/factors does your state consider when determining levels of funding for charter schools?**

(Open-ended)**: How does your state consider the factors selected above to determine levels of funding for charter schools?**

c. **Does your state use any of the following methods to fund construction, improvement, or maintenance and operations of charter school facilities?** (Check one per row.)

	Yes	No	Don't know
Allocated funding from state legislature			
Sales tax			
Excise tax			
State-level bond initiative			
Other tax revenue			
State lottery funds			
Public-private partnerships			
Other			

(If Other, open-ended): **What other methods does your state use to fund construction, improvement, or maintenance and operations of charter school facilities?**

Federal Assistance

9. **Does your state collect information on the condition of school facilities in districts that receive federal Impact Aid funding?** (Check one.)

   _____ Yes
   _____ No
   _____ Don't Know

(Open-ended)**: What findings or trends has your state identified regarding the condition of school facilities in districts that receive federal Impact Aid funding?**

10. **Does your state provide additional school facilities funding or other assistance to districts that receive federal Impact Aid funding?** (Check one.)

    _____ Yes
    _____ No
    _____ Don't Know

(Open-ended)**: How would you describe the additional school facilities funding or other assistance that your state provides to districts that are federally impacted?**

Accessibility of School Facilities and the Americans with Disabilities Act (ADA)

11. **Is your state planning any of the following actions to increase the physical accessibility of school facilities (including school grounds) in the next 3 calendar years?** (Check one per row.)

	Yes	No	Don't know
Providing funding to districts for large-scale renovations or modernizations that should address accessibility concerns			
Providing funding to districts for small-scale upgrades to inaccessible features, such as ramps, door hardware, and signage			
Conducting accessibility evaluations by state officials			
Providing funding to districts to conduct accessibility evaluations			
Providing technical assistance or guidance to districts on accessibility (or ADA) and school facilities			
Other			

(If Other, open-ended): **For what other actions is your state planning to increase the physical accessibility of school facilities?**

12. **Has your state provided districts or school officials with any of the following guidance documents, training, or assistance related to ADA standards or the accessibility of school facilities in the last 5 years?** (Check one per row.)

	Yes	No	Don't know

State guidance, policies, or standards on accessibility
Industry guidance on accessibility (e.g., International Building Codes)
2010 ADA Standards for Accessible Design
Additional guidance from the U.S. Department of Justice
Guidance from the U.S. Department of Education
Professional guidance or academic research on universal design
Technical assistance (virtual or on-site)
Training (virtual or in person)
Other

(If Other, open-ended): **What additional guidance documents, training, or assistance related to ADA standards or the accessibility of school facilities has your state provided district or school officials in the last 5 years?**

13. **Open-ended: What additional guidance related to ADA standards or accessibility would be helpful to you in your role?**

14. **Have staff in your department received training or technical assistance related to ADA standards or the accessibility of school facilities in the last 5 years?** (Check one.)

    _____ Yes
    _____ No
    _____ Don't Know

    a. **Would training and/or technical assistance on ADA standards or accessibility be helpful to you in your role?** (Check one.)

       _____ Yes
       _____ No
       _____ Don't Know

Appendix III: School Facilities in Districts that Received Federal Impact Aid

This appendix summarizes key information on the condition of and funding for school facilities in districts that received Impact Aid.

The Department of Education (Education) administers the Impact Aid program to assist school districts that experience a financial burden as a result of certain federal activities being carried out there.[1] For example, federal Indian lands and military installations are exempt from property taxes—a key funding source that school districts use to offer a free public education. Impact Aid is intended to compensate school districts, in part, for the lost tax revenue.[2]

As noted in this report, property tax revenue was the most common source of funding school districts used for school facilities—an estimated 77 percent of all districts used property taxes for this purpose, based on our nationally representative survey. Districts with reduced property tax revenue, due to tax-exempt federal property or other reasons, may struggle to raise the funds needed for repairs and renovations to their school facilities.

School districts that are eligible to receive Impact Aid might qualify for several types of payments under the program. About 90 percent of all Impact Aid funding falls under the category of Basic Support payments. According to the Congressional Research Service (CRS), school districts generally use these funds for current expenditures, such as administration, instruction, and transportation. However, because Impact Aid Basic Support payments are not limited to specific uses, school districts may also use them for capital expenditures.

According to Education's data, approximately 1,040 school districts (of a total of about 14,000 school districts nationwide) received Basic Support

[1]In addition to Education's Impact Aid program, the Department of Defense (DOD) administers two programs referred to as "DOD Impact Aid" that supplement Education's programs: (1) for districts with significant numbers of military dependent students and (2) for districts serving military dependent students with severe disabilities. According to the Congressional Research Service (CRS), in fiscal year 2018, appropriations for the first program totaled $30 million for approximately 120 eligible school districts and appropriations for the second program totaled $5 million for about 50 eligible school districts. This appendix focuses on districts that received Impact Aid through Education's program.

[2]For an overview of the Impact Aid program, see CRS, *Impact Aid, Title VII of the Elementary and Secondary Education Act: A Primer*, R45400, (Washington, D.C.: November 2018). References to CRS throughout this appendix refer to information from this primer.

payments in fiscal year 2018 totaling $1.26 billion. The amount of these payments varied considerably by district—ranging from a high of about $55 million to a low of $540. Differences in the payments districts received resulted from several factors, including the number and types of federally-connected students the district served, according to CRS. In fiscal year 2018, there were 28 "heavily-impacted" school districts, meaning they were substantially affected by the presence of federally-connected children. Heavily-impacted districts receive increased Basic Support payments.

In addition to Basic Support payments, some school districts are eligible for Impact Aid Construction grants for construction and emergency facility repair and renovation. From fiscal year 2014 to 2019, appropriations for Impact Aid Construction funds have consistently been about $17.4 million each year. According to CRS, appropriations language in recent years has determined whether Impact Aid Construction funds are distributed through formula grants to eligible school districts or competitive grants to a limited number of school districts, and from fiscal year 2013 to 2018, distribution alternated between these two types of grants. Approximately 150 school districts are eligible to receive Impact Aid Construction grants, according to Education officials. In fiscal year 2018, these funds were distributed through competitive grants and eight school districts received grants, ranging from $143,000 to $5.3 million.

Sixty-seven school districts that received Impact Aid responded to our survey of school districts.[3] In addition, eight of the 16 districts we visited received Impact Aid Basic Support payments in fiscal year 2018. These districts varied based on their proximity to different tax-exempt federal properties (i.e., military installations and Indian lands), as well as the number and percentage of federally-connected students they educated. Two districts we visited received Impact Aid Construction grants.

Conditions of School Facilities

Overall, on our survey of school districts, responses from the nongeneralizable group of districts that received Impact Aid were similar to the generalizable results for all districts nationwide both in terms of the

[3]Each of the 67 districts did not respond to every question. Data on whether a district that responded to our survey received Impact Aid come from Education's Local Education Agency Finance Survey, collected in conjunction with the U.S. Census Bureau. The school district survey data presented in this appendix are limited to the nongeneralizable responses of districts that received Impact Aid, unless otherwise noted.

key school building systems and features districts needed to update or replace and district priorities when updating or renovating school facilities.

Table 3 shows the number of school districts receiving Impact Aid payments that reported that at least half of their schools needed updates or replacements to each building system or feature listed. As shown, districts most commonly indicated needing to update or replace heating, ventilation, and air conditioning systems (32); followed by safety and security (27), roofing (25), interior light fixtures (23), and plumbing (23).

Table 3: Key Building Updates or Replacements Needed in Districts that Receive Impact Aid

School building system or feature	Number of districts that reported needing updates or replacements in at least half of their schools[a]
Heating, ventilation, and air conditioning	32 of 65 districts
Safety and security (e.g., cameras, alarms, access control)	27 of 65
Roofing	25 of 64
Interior light fixtures	23 of 65
Plumbing	23 of 65
Fire protection (e.g., alarms and suppression systems)	20 of 66
Electrical systems	20 of 65
Exterior light fixtures	20 of 64
Doors	19 of 65
Indoor air quality monitoring	19 of 64
Windows	17 of 65
Telecom systems (e.g., phone, cable, WiFi)	16 of 66
Water quality monitoring	16 of 65
Other features or retrofits for physical accessibility	12 of 64
Environmental conditions (e.g., exposure to asbestos, lead, mold)	11 of 66
Conveyance (e.g., elevators and lifts)	10 of 66
Structural integrity (e.g., walls, foundation)	10 of 65

Source: GAO analysis of school district survey data. | GAO-20-494

[a]A total of 67 school districts that received Impact Aid responded to our survey. Each district did not respond to every question.

Based on our school district survey, 51 of 66 districts that received Impact Aid had conducted a facilities condition assessment of their schools at

least once in the last 10 years. Of those 51 school districts, 34 reported assessing schools at least every 5 years. Nearly all districts (50 of 51) reported conducting the assessment for capital planning purposes and to assess safety and hazards.

Similar to generalizable estimates from our nationally representative survey of school districts, districts that received Impact Aid placed a high priority on safety and security (59 of 66 districts), monitoring environmental conditions (55 of 64), and student access to technology (54 of 65).[4]

Funding for School Facilities

Overall, more than half of districts that received Impact Aid and responded to our survey (36 of 66) reported that local funding was their primary source for funding school facilities projects. In comparison, 19 districts reported state funding as their primary source, eight districts reported federal funding, and three districts selected the “Other” option or did not know.

Similar to generalizable estimates from our survey of school districts, about three-quarters of districts that received Impact Aid and responded to our survey (49 of 66) reported using property tax revenue for school facilities. In addition, about two-thirds of them reported using local bonds and local grants for this purpose. Fewer districts reported using public-private partnerships, sales tax revenue, or other tax revenue for school facilities.

As noted above, districts may receive Impact Aid because they have lost property tax revenue due to certain federal activities, including being on or near federal property that is exempt from property taxes. Districts that serve a large proportion of federally-connected students, such as those located on or near federal Indian lands or military installations, may look similar to high-poverty districts in their lack of access to local funding mechanisms for school facilities. However, there is wide variety in the amount of Impact Aid payments districts received. This variety was similarly reflected in the eight school districts we visited that received Impact Aid. For example, the Basic Support payments the districts we visited received in fiscal year 2018 ranged from about $16,000 to about

[4]These data combine districts that reported either of the top two levels of priority—very much a priority and top priority—for a given system or feature on our survey.

$8.6 million, and the percentage of federally-connected students in the districts we visited ranged from 1 to 100 percent.

Officials in one of the districts we visited that received Impact Aid explained that, because the district is located on an Indian reservation, there is no property tax base to levy or bond against.[5] In the absence of these local funding options, officials said the district relied on state funding and some federal Impact Aid funding to address facility needs, and noted that the lack of local funding made it difficult for them to reach their goals for their school facilities. For example, officials said the state does not provide funding for designated classrooms for bilingual education. Because the district does not have the local property tax base to fund these spaces, officials said they must be creative with classes and teacher schedules to provide bilingual education. The location of these classes moves to different parts of the school at different times, meaning that teachers cannot set up a stable classroom that is properly equipped to teach bilingual education to students in the district, according to district officials.

None of the officials we interviewed in the eight districts that received Impact Aid said their district used Basic Support payments to address issues with the conditions of school facilities. Officials in two districts we visited described receiving Impact Aid construction grants. Officials in one of these districts explained that when these funds are distributed via formula grant, the amounts are not large enough to support a major capital project. An official in the district that had received a competitive grant in recent years said the district used the funds to build a new combined middle and high school.

In addition, representatives from the National Association of Federally Impacted Schools and the National Indian Impacted Schools Association told us they have heard anecdotally about some school districts using their Impact Aid funds as the basis for borrowing funds to pay for school facilities projects. They described this as particularly risky because Impact Aid appropriations levels are not guaranteed to remain consistent each year. The representatives said if funding levels for Impact Aid are reduced

[5]The Secretary of the Interior has discretionary authority to take land in trust on behalf of Indian tribes or their members. Trust status means that the federal government holds title to the land in trust for tribes or individual members. Once land is taken in trust it is no longer subject to state and local property taxes and zoning ordinances. Act of June 18, 1934 (Indian Reorganization Act), ch. 576, 48 Stat. 984-988 (1934), codified as amended at 25 U.S.C. §§ 5101-5144.

in the future, the districts would still have to pay back the borrowed funds before allocating funding for other purposes such as general operations, teacher salaries, educational materials, and other essentials for educating students in the school district.

On our state survey, eight states reported providing additional school facilities funding or other assistance to districts in the state that receive Impact Aid.[6] For example, an official in New Mexico told us the state has two programs targeted to school districts that get Impact Aid. One program awarded $10 million to districts in 2019 to help them provide teacher housing, according to state officials. State officials said a second state program in New Mexico awarded $24 million in 2019 to districts that received Impact Aid to assist them with projects that were ineligible for funding through New Mexico's other programs. For example, these officials said this funding could help schools in need of athletic fields, performing arts centers, or administrative buildings.

[6]The eight states were: Alaska, Arizona, Iowa, Kansas, Minnesota, New Mexico, Oklahoma, and Utah.

Appendix IV: School Facilities in Charter School Districts

Charter schools comprise a small but growing group of public schools. We previously reported that, in contrast to most traditional public schools, many charter schools are responsible for financing their own buildings and other facilities, i.e., charter school districts may not have access to the same local funding mechanisms as traditional school districts.[1] As a result, charter schools vary in terms of whether they own their own building or pay rent, and whether they operate in buildings originally designed as a school or in buildings that have been redesigned for educational purposes. Sometimes charter schools may also share space in their building with others, such as non-profit organizations. In addition to differences in facility access and finance, charter school governance also varies. We previously reported that in some states, charter schools function as their own school district, while in other states, charter schools have the option to choose between being their own school district or part of a larger school district.[2]

The data presented in this appendix are limited to the nongeneralizable responses of the 52 charter school districts that responded to our survey of school districts, unless otherwise noted.[3] In addition, we visited five charter schools across four states (California, Florida, Maryland, and Rhode Island) as part of our school district site visits. This appendix summarizes key information on the condition of and funding for school facilities in these charter school districts and schools.[4] Responses from the nongeneralizable group of charter school districts were similar to the generalizable results for all districts in the nation for key building updates, as well as priorities for modernizing school facilities, but different for how these districts access funding for school facilities.

Conditions of School Facilities

The highest number of charter school districts (20 of 51) indicated needing to update or replace heating, ventilation, and air conditioning systems in the majority of their schools, followed by windows (16), roofing (15), and interior light fixtures (15).

[1]GAO, *K-12 Education: Lead Testing of School Drinking Water Would Benefit from Improved Federal Guidance*, GAO-18-382, (Washington, D.C.: July 2018).

[2]GAO-18-382.

[3]Each of the 52 districts did not respond to every question.

[4]Of the 52 charter school districts that completed our survey, 40 districts had one school, 10 districts had between two and five schools, and two districts had more than five schools.

School officials at a charter school we visited told us they were having ongoing issues with several key building features, such as doors and windows. The charter school rents their facility from the traditional school district and has a lease that specifies who is responsible for certain maintenance and repair projects. School officials told us the school has a "utilities-only" lease, meaning they should not be responsible for any repairs, but officials told us they had to take on several projects to make the facility usable. Although the traditional school district—of which this charter school is a part—is responsible for many of these projects, district officials said they have not had the funding to address this. For example, before the school opened, school officials said they had to install door handles on interior doors and re-key the building so that they were able to lock and unlock doors. In addition, school officials told us that teachers have complained that windows are nailed shut and cannot be opened.

Based on our school district survey, 24 of 52 charter school districts had conducted a facilities condition assessment of their schools at least once in the last 10 years. Of those 24 school districts, 19 reported assessing schools at least every 5 years. Twenty-three charter school districts reported conducting the assessment to assess safety and hazards. Officials at four of the five charter schools we visited told us they were responsible for maintaining their own facilities. The other charter school we visited was part of a larger network of charter schools, and had regional offices that assisted with facilities and operations.

When updating or renovating school facilities, charter school districts responding to our survey ranked security and technology as their highest priorities, similar to the generalizable results for all districts in the nation. The top reported priorities were student access to technology (44 of 52), safety and security (43 of 51 districts), and telecommunication systems such as WiFi (36 of 51).[5] An official at a charter school we visited in Florida said safety and security was one of their main focuses when constructing the school. The school and parking lot are gated, and there is a camera to monitor all cars and people entering the campus. School officials told us that all classrooms and common areas are equipped with phones that can broadcast announcements throughout the campus, and that they have a lightening alert system so that they can move students indoors if a storm is approaching.

[5]These data combine districts that reported either of the top two levels of priority—very much a priority and top priority—for a given system or feature on our survey.

Funding for School Facilities

As previously noted, charter schools may or may not be part of a larger school district, and may not be able to access local funding sources such as property tax revenue. As noted in this report, property tax revenue was the most common source of funding that all school districts reported using for school facilities—an estimated 77 percent of all districts nationwide used property taxes for this purpose. Most charter school districts that responded to our survey indicated that state funding was their primary method of funding school facilities (32 of 49) and fewer (8 of 49) reported local funding as their primary method. The most common local funding mechanism that charter school districts reported using for facilities was grant funding (20 of 46 districts), followed by public-private partnerships (12 of 47 districts).

A charter school we visited told us about several areas in their school that they had improved with grants from non-profit organizations. For example, a teacher at the school applied for a grant from a foundation to replace the basketball hoops and paint in the gym, and a separate organization had installed a new playground at the school.

Based on our state survey, 26 states provide funding to charter schools for facilities—22 states provide direct funding to charter schools and four states provide funding to non-charter school districts, which would indirectly fund certain charter schools. Of the 26 states, 20 states reported doing so either through a funding formula, or a combination of funding formula, charter school requests, and other methods. The most common factor that states considered when determining levels of facilities funding for charter schools was the size of the student population (12 of 25 states). Of the 26 states that provide funding to charter schools for construction or maintenance and operations of charter school facilities, 19 reported using allocated funding from the state legislature to do so.

Appendix V: GAO Contact and Staff Acknowledgments

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Staff Acknowledgments

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