2018 FACILITIES & CONSTRUCTION BRIEF

An Overview of the Education Construction Scene

While there is much we can't predict, there are a few things we know for sure. We know that the population of the U.S. is growing and along with it the enrollment in our K-12 schools. We know that there is a growing need for an educated workforce, affecting the enrollment of colleges and universities nationwide. We know that there is an ongoing deferred maintenance problem and a need to invest in the improvement of existing facilities. We also know that the construction and renovation of educational facilities is finally on the rise.

The following information is provided to give you a brief overview of what we know based on available data and a survey of our readers. In past reports, we've provided national medians on specific facility types, but this year accurate data was scarce, the sample size too small and the project scope too varied. What you find here are the trends in population and enrollment, the trends in overall education construction spending, and the results of our reader survey—giving you an overview of the trends in facilities and construction.

The *SP&M/CP&M* Editorial Team

CHANGES IN POPULATION AFFECT ENROLLMENT

POPULATION CHANGE

- One birth every 8 seconds
- One death every 10 seconds
- One international migrant (net) every 29 seconds
- Net gain of one person every 18 seconds

States in the South and West continued to lead in population growth. Nationally, the U.S. population grew by 0.72 percent. Eight states lost population between July 1, 2016, and July 1, 2017. Illinois had the largest numeric decline, losing 33,703 people (this was a relatively small percentage change compared to its population of 12.8 million). Wyoming had the largest percentage decline (1.0 percent). Three states that had been losing population in the previous year, Pennsylvania, Connecticut and Vermont, saw slight increases.

GROWTH BY NUMBER (2016 to 2017)

State	2017 Population	Growth
Texas	28,304,596	399,734
Florida	20,984,400	327.811
California	39,536,653	240,177
Washington	7,405,743	124,809
North Carolina	10,273,419	116,730
Georgia	10,429,379	115,759
Arizona	7,016,270	107,628
Colorado	5,607,154	77,049
Tennessee	6,715,984	66,580
South Carolina	5,024,369	64,547

Source: U.S. Census Bureau

ENROLLMENT PROJECTIONS

ELEMENTARY AND SECONDARY

Total public and private elementary and secondary school enrollment was 55 million in fall 2013, the last year of actual public school data. Between fall 2013, and fall 2025, an increase of 2 percent is expected. Public school enrollments are projected to be higher in 2025 than in 2013 for the South and West, and to lower for the Northeast and Midwest.

- Enrollment in prekindergarten through grade 8 is projected to increase 2 percent between 2013 and 2025.
- Enrollment in grades 9-12 is projected to increase 3 percent between 2013 and 2025.
- Public elementary and secondary enrollment is projected to increase 2 percent nationally, reflecting a 5-percent decrease in the Northeast, a 3-percent decrease in the Midwest, an 8-percent increase in the South and a 4-percent increase in the West.

DEGREE-GRANTING POSTSECONDARY

Total enrollment in degree-granting postsecondary institutions is expected to increase 15 percent between fall 2014, the last year of actual data, and fall 2025.

- Enrollment in degree-granting postsecondary institutions of students who are 18 to 24 years old is projected to increase 13 percent between 2014 and 2025.
- Enrollment in degree-granting postsecondary institutions of students who are 25 to 34 years old is projected to increase 16 percent between 2014 and 2025.
- Enrollment in degree-granting postsecondary institutions of students who are 35 years old and over is projected to increase 20 percent between 2014 and 2025.

ENROLLMENT PROJECTIONS (In Thousands)

Year	All	pK-12	pK-12: Public			pK-12: Private			Degree-Granting Postsecondary		
			Total	pK-8	9-12	Total	pK-8	9-12	Total	Public	Private
2005	72,647	55,187	49,113	34,204	14,909	**6,073	**4,724	**1,349	17,487	13,022	4,466
2010	75,886	54,867	49,484	34,625	14,860	5,382	4,084	1,299	21,019	15,142	5,877
*2015	75,810	55,546	50,268	35,298	14,970	5,278	3,968	1,311	20,264	14,789	5,475
*2020	77,875	55,862	50,774	35,559	15,215	5,088	3,871	1,217	22,013	16,038	5,975
*2025	79,800	56,510	51,420	36,052	15,368	5,090	3,943	1,147	23,290	16,967	6,323

*Projected; ** Estimated

Source: National Center for Education Statistics, Projections of Education Statistics to 2025.
Note: Projections do not assume changes in policies or attitudes that may affect enrollment levels.

EDUCATIONAL CONSTRUCTION SPENDING

The total dollar value of educational construction work done in the United States (including 50 states and the District of Columbia) is estimated to have exceed $99.6 billion dollars in 2017. This is the largest year-over-year increase we have seen since 2008.

YEAR	TOTAL (Millions of Dollars)
2003	$ 74,315
2004	$ 74,251
2005	$ 79,687
2006	$ 84,929
2007	$ 96,758
2008	$ 104,891
2009	$ 103,203
2010	$ 88,405
2011	$ 84,986
2012	$ 84,673
2013	$ 79,059
2014	$ 79,681
2015	$ 83,518
2016	$ 91,953
2017	$ 99,580 (est)

2017 IN REVIEW: MORE STATISTICS

For 2017 as a whole, nonresidential building advanced 7 percent to $270.7 billion, according to an analysis by Dodge Data & Analytics (*www.construction.com*). The analysis indicates that institutional building categories as a group climbed 14 percent, a stronger gain than the 9 percent increase reported during 2016.

The institutional building categories as a group increased 9 percent in December 2017 alone. Healthcare facilities climbed 29 percent. The other major institutional category, educational facilities, receded 7 percent in the month of December following its 13 percent November gain. Large educational facilities projects that reached groundbreaking in December were led by a $135 million middle school in Sparks, NV; a $90 million science and technology building at Virginia Polytechnic Institute in Roanoke, VA; and an $87 million business and behavior science building at Clemson University in Clemson, SC.

The educational facilities category in 2017 overall increased 6 percent, as college and university construction starts jumped 20 percent after experiencing a 3 percent decline in the previous year. Large college and university projects that reached groundbreaking in 2017 included a $421 million research laboratory at the University of California in Merced, CA, and a $327 million school of engineering and applied sciences at Harvard University in Allston, MA.

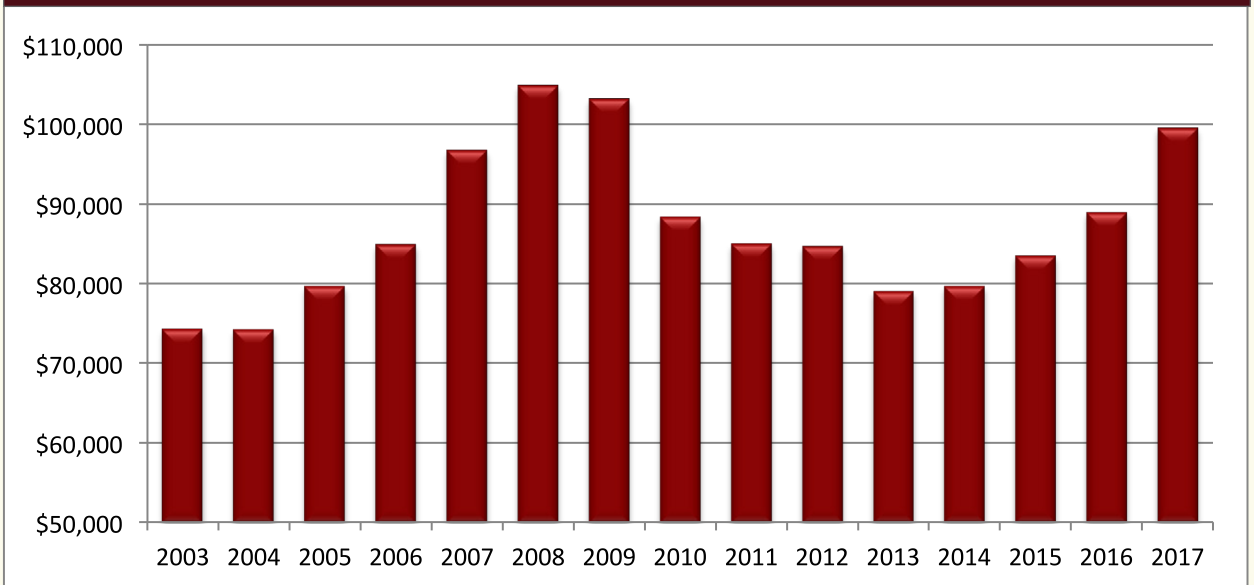
The K–12 portion of the educational facilities category rose 5 percent in 2017, according to the Dodge Data & Analytics report; a smaller gain than the 14 percent increase they reported during the previous year.

The top five states for K–12 school construction in 2017, with their percent change from the previous year, were the following—Texas, down 4 percent; New York, up 24 percent; California, up 13 percent; Washington, up 43 percent; and Ohio, up 9 percent.

The 3 percent increase for total construction starts at the national level in 2017 was the result of mixed behavior by geography. The Northeast climbed 17 percent, aided by strong gains for its institutional building sector and natural gas pipelines, while more moderate total construction growth was reported for the South Atlantic, up 6 percent; and the West, up 3 percent. Total construction declines in 2017 were reported for the South Central, down 3 percent; and the Midwest, down 8 percent.

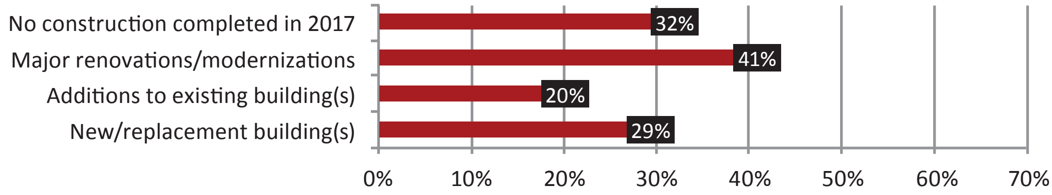
Educational construction spending includes expenditures for new buildings and structures, additions, renovations, rehabilitations, major replacements (such as the complete replacement of a roof or heating system); mechanical and electrical installations; site preparation and outside construction of fixed structures or facilities such as sidewalks, parking lots, and utility connections. Educational facilities include preschools, primary/secondary schools, higher education facilities, trade schools, training facilities, and other educational spaces including museums and libraries.

EDUCATION CONSTRUCTION (Millions of Dollars)

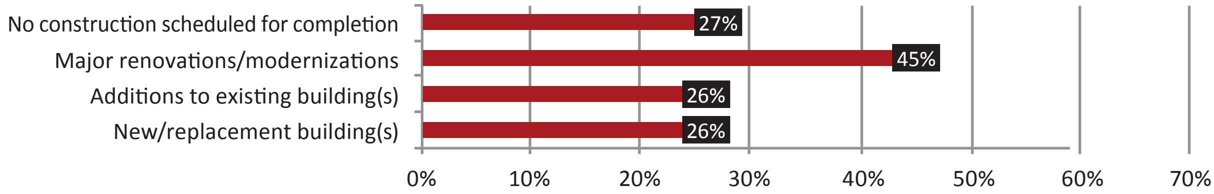


SURVEY ON SCHOOL CONSTRUCTION

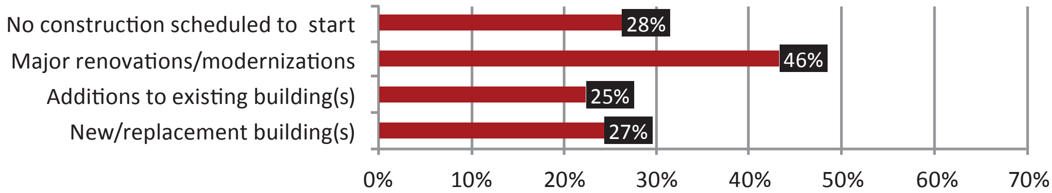
Did you COMPLETE any construction projects in 2017?



Will you COMPLETE any construction projects in 2018?



Will you START any construction projects in 2018?



What is your opinion on the funds available for construction compared to last year?

Survey Respondents: 133 pK-12 school districts responded to this survey among 38 states.

KEY TAKEAWAYS

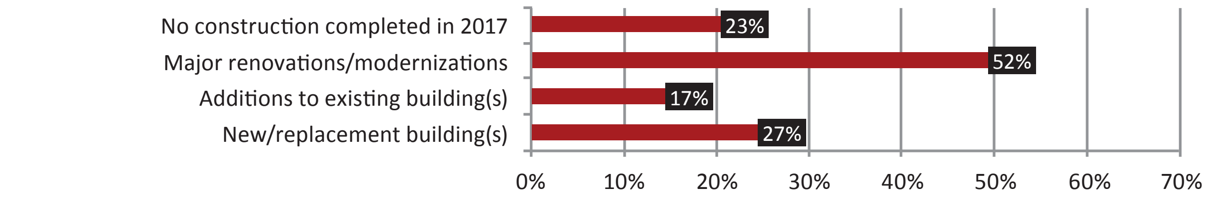
- Sixty-eight percent of districts surveyed completed construction in 2017.
- Seventy-two percent of districts surveyed are planning to start construction projects in 2018.
- Major renovations and modernizations are the major focus of projects completed in 2017 and expected to be started in 2018.
- Most institutions surveyed—62 percent—believe that there will either be no change or fewer funds available for construction projects in 2018.

OTHER ISSUES FACING INSTITUTIONS

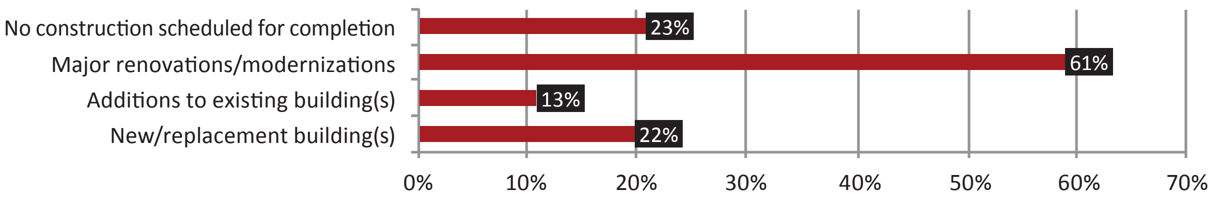
- Funding is the biggest issue.
- Resistance by voters to approve bonds with property tax increases.
- Trying to keep pace with local growth and enrollment increase.
- Availability of manpower for the various trades to complete their work.
- Old facilities.
- Preventative maintenance schedule and having staff abide and adhere to scheduling. Accountability.
- Getting plans approved at State Education Department in a timely period.
- Regulatory requirements.
- Time management for project completion by the school start date in the fall.
- Safety, logistics and continuing the educational program during construction/renovation.
- Maintenance: personnel to maintain new buildings and associated new landscape.
- Increasing cost of construction and depleted labor pool.
- Communication and transparency between administration and maintenance department or contactors.
- State and local site/development requirements.

SURVEY ON COLLEGE CONSTRUCTION

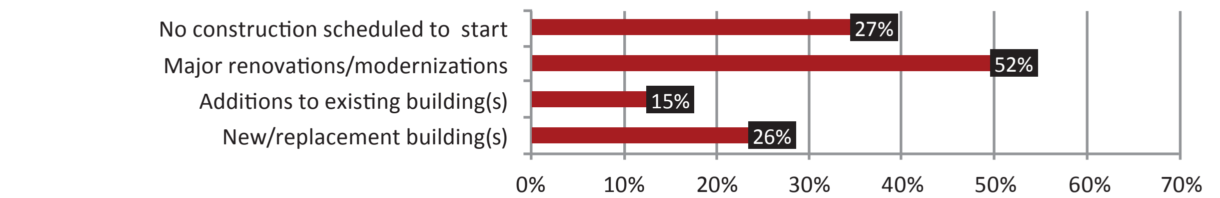
Did you COMPLETE any construction projects in 2017?



Will you COMPLETE any construction projects in 2018?



Will you START any construction projects in 2018?



What is your opinion on the funds available for construction compared to last year?

Survey Respondents: 143 colleges and universities responded to this survey among 38 states.

KEY TAKEAWAYS

- Seventy-seven percent of institutions surveyed completed construction in 2017.
- Seventy-three percent of institutions surveyed are planning to start construction projects in 2018.
- Major renovations and modernizations of existing facilities will continue to be the focus.
- While only 18 percent of survey respondents feel that more funds for construction are becoming available, only 29 percent (a significant drop from last year's 43 percent) feel that fewer funds are available.

OTHER ISSUES FACING INSTITUTIONS

- Adequate construction labor availability.
- Hiring enough staff to support the workload of deferred maintenance and construction services.
- Quality of construction from low bidders.
- We see an aging workforce and struggle to maintain a good workforce.
- Maintaining continuous operations during renovations.
- Preparing for future technology needs.
- Institutional commitment to certain growth trajectories. A reactionary vs. planned approach in strategic planning places us in a position of consistent fast-tracking, which equates to risk and vulnerability in development.
- Bureaucratic hurdles for vendor selection, procurement, etc. Causes great delays that impact cost.
- Rules and regulations, zoning, permitting.
- Basically, just space for additional offices/classrooms and storage.
- P3 versus conventional funding decisions.
- Scheduling time for the project.
- Matching the existing construction materials in older buildings; i.e., new exterior elevator structure.
- Weather.