

2020 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 *Spaces4Learning* Editorial Team

CHANGES IN POPULATION AFFECT ENROLLMENT

POPULATION CHANGE

- One birth every 9 seconds
- One death every 10 seconds
- One international migrant (net) every 47 seconds
- Net gain of one person every 26 seconds

States in the South and West continued to lead in population growth. Nationally, the U.S. population grew by 0.5 percent. Idaho and Nevada were the fastest-growing states, with Idaho increasing by 2.1 percent, Nevada by 1.75 percent. In addition, Arizona and Utah grew by 1.7 percent, Texas and South Carolina by 1.3 percent, and Washington by 1.2 percent. Ten states lost population last year. New York had the largest numeric decline, losing 76,790 people. Texas had the largest numeric growth over the last year, with an increase of 367,215 people.

GROWTH BY NUMBER (2018 to 2019)		
State	2019 Population	Growth
Texas	28,995,881	367,215
Florida	21,477,737	233,420
Arizona	7,278,717	120,693
North Carolina	10,488,084	106,469
Georgia	10,617,423	106,292
Washington	7,614,893	91,024
Colorado	5,758,736	67,449
South Carolina	5,148,714	64,558
Tennessee	6,829,174	57,543
Nevada	3,080,156	52,815

Source: U.S. Census Bureau

ENROLLMENT PROJECTIONS ELEMENTARY AND SECONDARY

Total public and private elementary and secondary school enrollment was 56.4 million in fall 2016, the last year of actual public school data. Between fall 2016 and fall 2028, an increase of just under 2 percent is expected. Public school enrollments are projected to be higher in 2028 than in 2016 for the South and West, and to lower for the Northeast and Midwest.

- Enrollment in public prekindergarten through grade 8 is projected to decrease 1 percent between 2016 and fall 2022, then increase by 3 percent by fall 2028.
- Enrollment in grades 9-12 is projected to increase 5 percent between 2016 and fall 2023, then decrease by 3 percent in fall 2028.
- Public elementary and secondary enrollment is projected to increase 1.6 percent nationally, with some 25 states and the District of Columbia projected to have public school enrollment increases in both preK through grade 8 and grades 9 through 12. In contrast, 20 other states are projected to have enrollment decreases in both grade ranges.

DEGREE-GRANTING POSTSECONDARY

In fall 2017, there were 16.8 million undergraduate students and 3.0 million postbaccalaureate (graduate) students attending degree-granting postsecondary institutions in the U.S. Total enrollment in degree-granting postsecondary institutions is expected to increase 13 percent between fall 2015, the last year of actual data, and fall 2026.

- Enrollment in degree-granting postsecondary institutions of students who are 18 to 24 years old is projected to increase 17 percent between 2015 and 2026.
- Enrollment in degree-granting postsecondary institutions of students who are 25 to 34 years old is projected to increase 11 percent between 2015 and 2026.
- Enrollment in degree-granting postsecondary institutions of students who are 35 years old and older is projected to increase 4 percent between 2015 and 2026.
- Enrollment of males in degree-granting postsecondary institutions is projected to increase 11 percent between 2015 and 2026 to 9.7 million.
- Enrollment of females in degree-granting postsecondary institutions is projected to increase 15 percent between 2015 and 2026 to 13 million.

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
2009	75,163	54,849	49,361	34,409	14,952	5,488	4,179	1,309	20,314	14,811	5,503
2014	76,097	55,888	50,313	35,370	14,943	5,575**	4,202**	1,373**	20,209	14,655	5,554
*2019	76,767	56,753	50,803	35,683	15,120	5,951	4,374	1,576	20,014	14,865	5,149
*2026	78,404	57,987	51,833	36,451	15,382	6,154	4,509	1,645	20,417	15,163	5,254

*Projected; **Estimated

Source: National Center for Education Statistics, Projections of Education Statistics to 2026.

Note: Projections do not assume changes in policies or attitudes that may affect enrollment levels.

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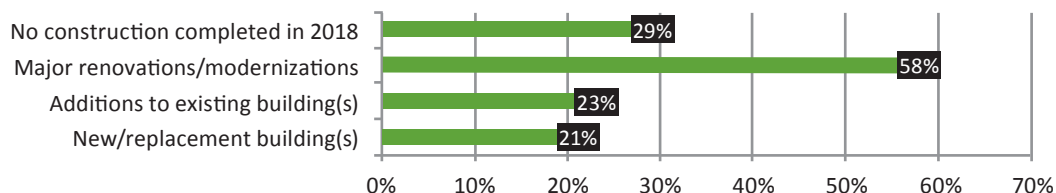
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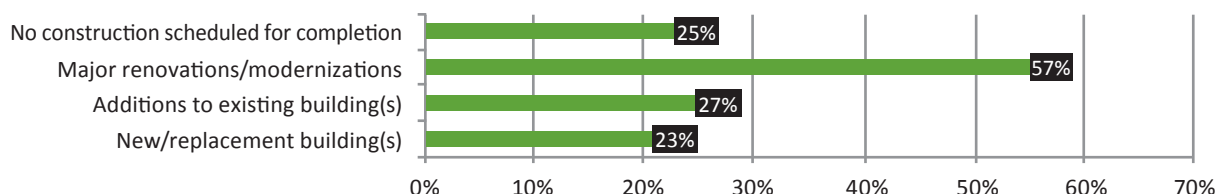
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SURVEY ON COLLEGE CONSTRUCTION

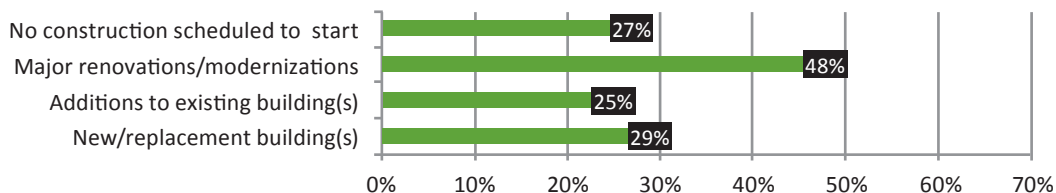
Did you COMPLETE any construction projects in 2019?



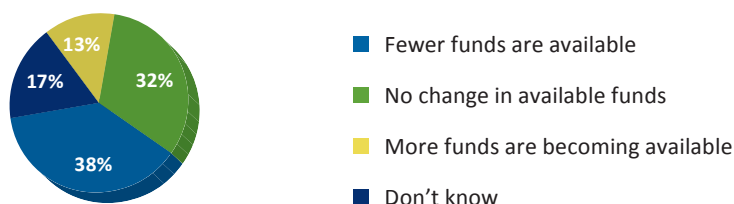
Will you COMPLETE any construction projects in 2020?



Will you START any construction projects in 2020?



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



Survey Respondents: 151 colleges and universities responded to this survey among 37 states, one province in Canada, and Egypt.

KEY TAKEAWAYS

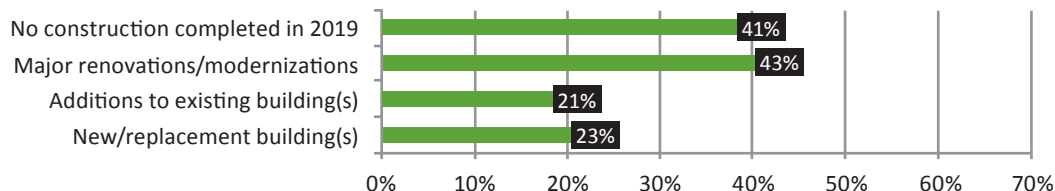
- Seventy-one percent of institutions surveyed completed construction in 2019.
- Seventy-three percent of institutions surveyed are planning to start construction projects in 2020.
- Major renovations and modernizations of existing facilities will continue to be the focus.
- Only 13 percent of survey respondents feel that more funds for construction are becoming available (down from 22 percent last year), and 38 percent (up slightly from last year's 33 percent) feel that fewer funds are available.

OTHER ISSUES FACING INSTITUTIONS

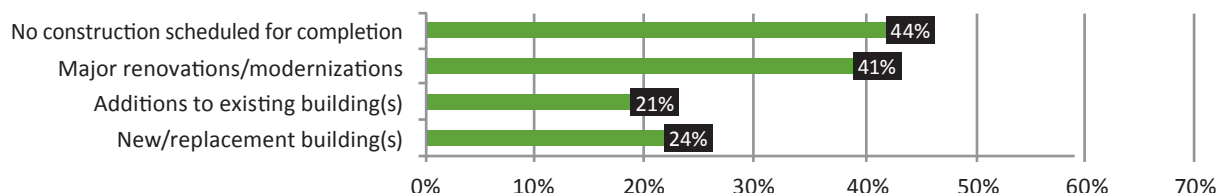
- Maintaining a preventive maintenance strategy on an aging physical plant with limited resources.
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- Technology and infrastructure updates. Student/faculty aspirations and expectations.
- Master planning with a forecast of declining high school graduation rates through 2032 that will affect college enrollments.
- Consistency in project management of large projects. Delays that are poorly managed and effect tail-end completion.
- Time taken away from regular job duties.
- Making sure there is a strategic plan in place for identified projects based on comprehensive study of campus needs.
- Finding appropriate swing space to renovate existing facilities and working around a busy college campus.
- Competing with other universities for state bonded projects and upgrading seismic safety of buildings.

SURVEY ON SCHOOL CONSTRUCTION

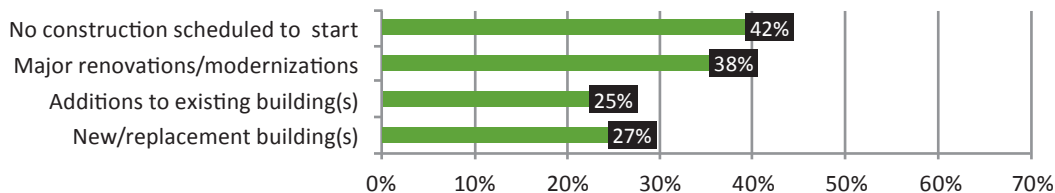
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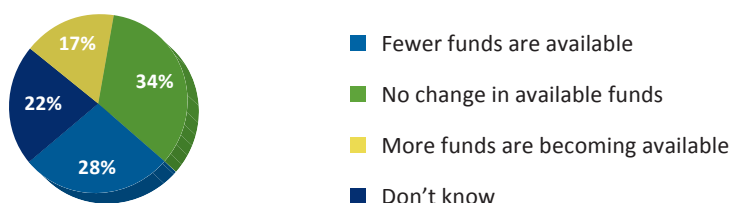
Will you COMPLETE any construction projects in 2020?



Will you START any construction projects in 2020?



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



Survey Respondents: 181 pK-12 school districts responded to this survey among 24 states.

KEY TAKEAWAYS

- Fifty-nine percent of districts surveyed completed construction in 2019.
- Fifty-six percent of districts surveyed are planning to start construction projects in 2020.
- Major renovations and modernizations are the major focus of projects completed in 2019 and expected to be started in 2020.
- Most institutions surveyed—62 percent—believe that there will either be no change or fewer funds available for construction projects in 2020.

OTHER ISSUES FACING INSTITUTIONS

- The cost of building materials.
- The cost of an engineer or architect.
- Finding qualified contractors/sub-contractors that provide quality construction.
- Labor shortage for all trades and skyrocketing escalation of construction costs.
- Finding land that meets the need, but is not too expensive.
- Fewer bidders.
- Completing projects inside existing buildings without academic interruption.
- Slow decision-making process.
- Community support to pass a bond referendum.
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- Safety concerns during construction.
- Prioritization—too many needs for available funds.
- More regulations increase the building cost.
- Existing traditional school buildings provide structural challenges to renovate to the newer open classroom concept.
- Planning for the everchanging nature of educational programming and planning for growth without over-building.

EDUCATIONAL CONSTRUCTION SPENDING

The total dollar value of education construction work done in the U.S. (including all 50 states and the District of Columbia) is estimated to be \$98 billion in 2019. There was a small percentage increase of 0.2 percent from last year's total spent on education construction.

YEAR	TOTAL (Millions of Dollars)
2005	\$ 79,687
2006	\$ 84,928
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CAPITAL INVESTMENT IN REVIEW: MORE DATA

THE AMOUNT OF CAPITAL investment dedicated to existing campus facilities by North American colleges and universities reached an 11-year high in 2017, according to a new report from Sightlines, a Gordian company.

The sixth annual "State of Facilities in Higher Education" report found that total capital investment into existing properties on college campuses reached nearly \$5 per gross square foot in 2017. This caps a steady climb that began in 2011 and is the highest figure recorded since 2007.

The report also identified a potentially challenging trend for college facilities managers. A deep dive into the ages of existing buildings on hundreds of campuses indicated the coming need for major capital investments.

Other notable trends identified in the report included:

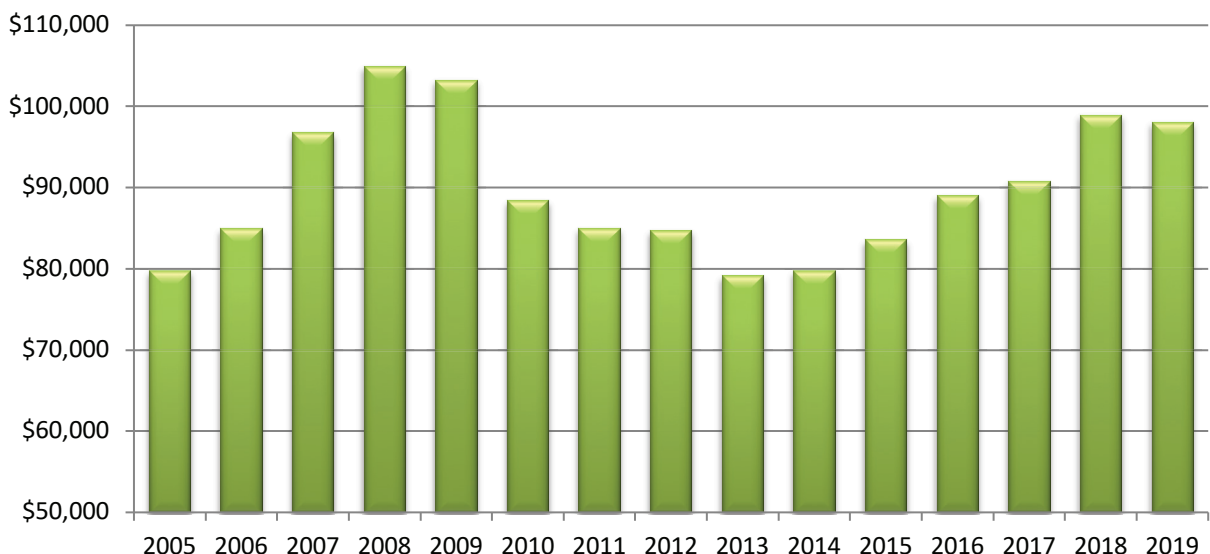
- **Campus expansion continues despite declining enrollment** —The educational landscape has become increasingly competitive in recent years, causing institutions to double down on the construction of new facilities. This strategy may pay off for research institutions (14 percent increase in space, 16 percent increase in enrollment since 2007), but it will likely leave many masters institutions

(17 percent increase in space, 4.5 percent increase in enrollment since 2007) with swollen campus footprints and declining tuition revenues to cover the costs.

- **College debt continues to pile up** — With enrollment revenues, endowment support, and state funding all on the decline, institutions have financed their capital investments by borrowing money at low interest rates for the past decade, compounding existing debt issues. Total debt funding (more than \$41 billion in 2016, according to *The Atlantic*) may prove harder to service if interest rates continue to rise.
- **There's no stopping the backlog** — Despite positive capital investment trends, funding is unable to keep pace with the mounting list of project needs. Backlogs continue to grow and significantly impact campus operations and the overall experience of students, faculty, staff, and guests.

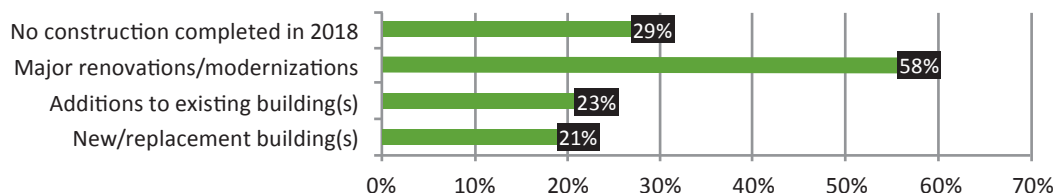
The report is based on comprehensive data collected and analyzed by Sightlines (www.sightlines.com) from more than 360 college and university campuses annually, which collectively operate more than 52,000 buildings that serve 3.5 million students.

EDUCATION CONSTRUCTION (Millions of Dollars)

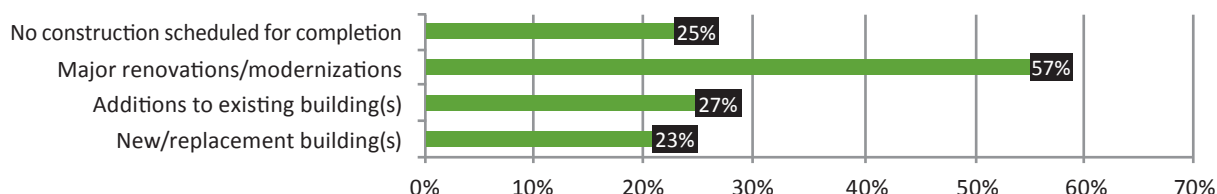


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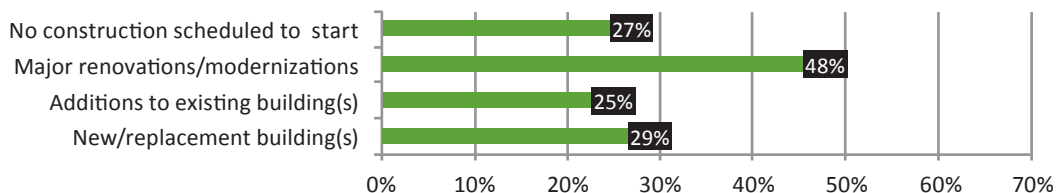
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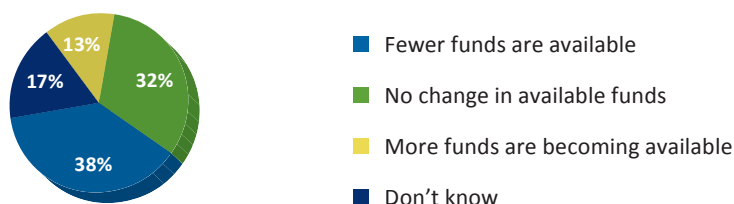
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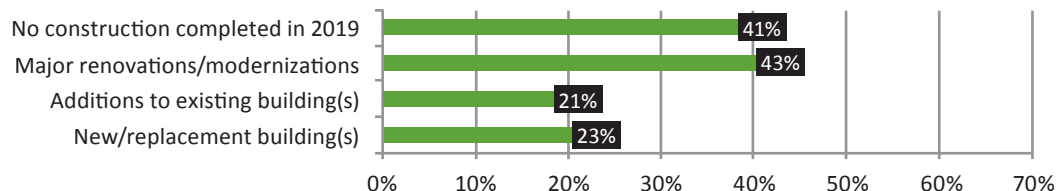
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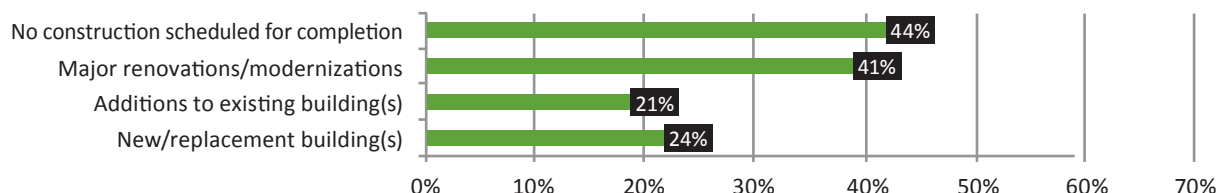
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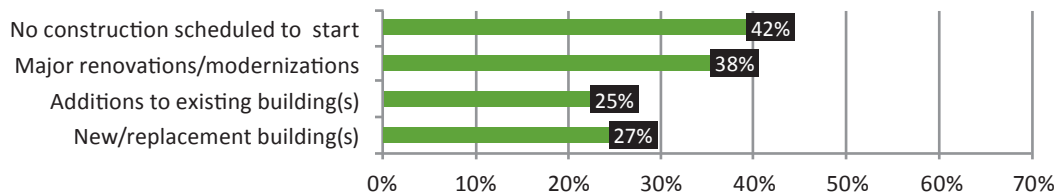
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