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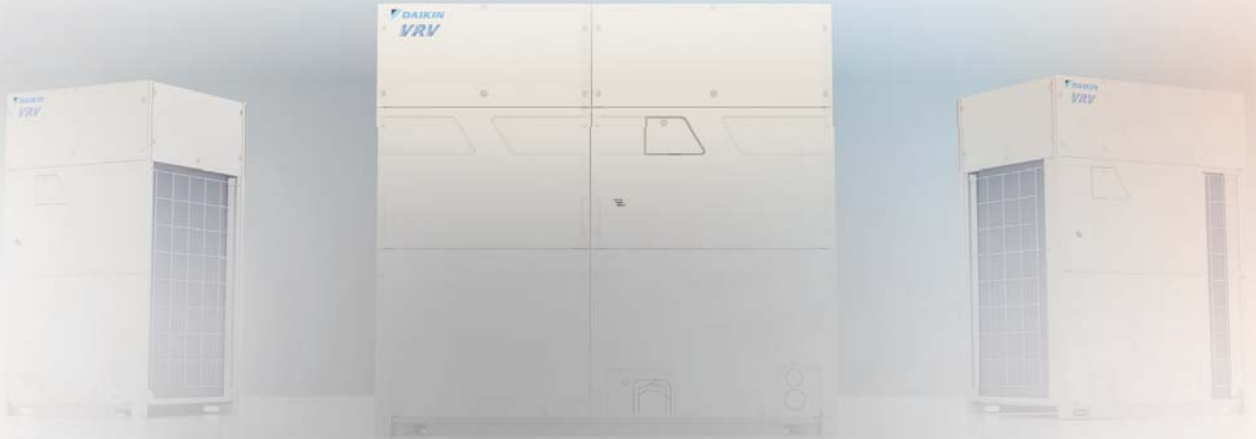
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# Fun with Numbers

By Mike Kennedy

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In my role as the person who gathers the enrollment numbers for this issue's AS&U 100 list of school districts with the most students, I have been immersed in figures for a few weeks.

After years of generating this list, I have grown accustomed to the familiar names among the largest districts. It's not surprising that the largest cities—New York, Los Angeles, Chicago—also have the districts with the most students. But because school districts come in all shapes and sizes, the largest ones don't necessarily correlate to the most populous cities. All things being equal, a district covering an expansive geographical area or a densely populated region will have more students than one that covers a sparsely populated area with only a few communities; a district that serves preK-12 students will have more students than a district with the same boundaries that has only elementary or only secondary students.

So one could view the list of the largest districts as arbitrary.

For instance, five of the 10 largest districts in 2020-21 were in Florida, in part because of the continuing growth that has made it the third-largest state, but also because school districts in the Sunshine State are countywide entities. By contrast, Los Angeles County, Calif., has 80 school districts, according to the Los Angeles County Office of Education, and Cook County, Ill., which includes Chicago, has more than 150 districts.

If school districts in all states coincided with county borders, Florida would not have any districts in the top 10. When students are counted by county, National Center for Education Statistics numbers for 2020-21 do show five of the 10 counties with the most students are from one state—but it's California, not Florida.

- Los Angeles County, Calif. — 1,374,222
- Harris County, Texas (Houston) — 882,929
- Maricopa County, Ariz. (Phoenix) — 740,289
- Cook County, Ill. (Chicago) — 723,842
- San Diego County, Calif. — 478,990
- Dallas County, Texas — 472,938
- Orange County, Calif. (Anaheim) — 442,790
- Riverside County, Calif. — 419,370
- San Bernardino County, Calif. — 396,911
- Tarrant County, Texas (Fort Worth) — 382,738

A countywide breakdown also would exclude New York City from the top 10. Because the city is divided into five counties, known as boroughs, the more than 1 million students attending city schools would be split into entities that would still be large, but not the largest.

- Brooklyn (Kings County) — 311,838
- Queens — 276,146
- Bronx — 214,196
- Manhattan (New York County) — 167,128
- Staten Island (Richmond County) — 63,000

In the alternative world of countywide districts, the states of California and Texas still would dominate the list of the 100 largest—15 California counties and 13 Texas counties make the list. New York state, with only one representative among the largest districts, has nine counties among the 100 with the most public school students. Florida has eight counties on the list, including the 100th entry, Pinellas County, with 96,068 students. By contrast, the 100th largest school district in 2020-21, Boston, had 48,112 students. ■

**Mike Kennedy**, senior editor, has written for *AS&U* on a wide range of educational issues since 1999.

## St. John's University will close Staten Island campus

St. John's University in New York City is shuttering its Staten Island campus in 2024 because of a drop in enrollment.

The university, whose main campus is in the Queens borough, says the Covid-19 pandemic exacerbated an existing enrollment decline at the location.

In fall 2021, 861 undergraduate and graduate students were enrolled at the Staten Island site, according

to the university's website. The expected enrollment for fall 2022 is 63% lower than it was in 2000.

St. John's Staten Island campus had its beginnings in the 1930s as a women's college, Notre Dame College. It was absorbed by St. John's in 1971.

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Image courtesy of Google.

## Victims and survivors of Uvalde shooting say they will file \$27 billion class-action lawsuit

Victims and survivors of the shooting attack at a school in Uvalde, Texas, plan to file a \$27 billion class-action lawsuit against the school district and other entities.



Image courtesy of Google.

ABC News reports that attorneys for many of those affected by the May 24 attack have served the Uvalde district with a notice of claim.

Lawyers have indicated that they intend to sue several law enforcement agencies as well as the manufacturer of

the gun used in the massacre. The shooting at Robb Elementary School left 19 students and two teachers dead.

The attorneys' notice to the school district cites an investigative report from the Texas House of Representatives that severely criticized the response by the district and law enforcement agencies to the shooting.

"Uvalde CISD and its police department failed to implement their active shooter plan and failed to exercise command and control of law enforcement responding to the tragedy," the Texas House report says.

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## District in California agrees to end racially discriminatory student discipline policies

The Victor Valley (Calif.) Union High School District has reached an agreement with federal officials to end racially discriminatory practices in how it disciplines Black students.



Image courtesy of Google.

The U.S. Department of Education's Office for Civil Rights says it has entered into a resolution agreement with the school system that will result in the district revising its discipline policies and procedures.

An investigation by the department's Office of Civil Rights found that the Victor Valley district violated civil rights laws by disciplining Black students more frequently and more harshly than similarly situated white students.

"[A]dministrators, teachers, and student witnesses reported discrimination in multiple areas such as

suspensions, expulsions, truancy, and issuance of law enforcement citations," the Department of Education said in a news release.

The district, about 80 miles north-east of Los Angeles, serves about 11,000 students in grades seven through 12 in Victorville and Adelanto.

The agreement with the Office of Civil Rights requires Victor Valley to revise its discipline policies and procedures, train its staff regarding them, and develop and carry out a corrective action plan to ensure nondiscrimination in student discipline.

The agreement also requires the district to offer and provide compensatory education for students harmed by its racially discriminatory discipline practices.

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## Consultant urges Atlanta school board to get rid of 16 properties

A consultant is recommending that the Atlanta school district sell or otherwise dispose of 16 of its properties.

The properties, most of which are former school sites, are scattered throughout the city, reports *The Atlanta Journal-Constitution*.

Consultants from the Sizemore Group presented their recommendations to the school board at a recent meeting.

Of the district's 152 properties, 105 are in use.

Consultants considered enrollment projections, risk hazards such as a site's proximity to railroads

and highways, and property size and location to determine which excess properties may no longer be needed.



Logo courtesy of Atlanta Public Schools.

Two buildings on the list could be historically significant, according to the district—the former Capitol View Elementary School, which was built in the late 1920s, and the former Lakewood Heights Elementary School.

A final board vote on the recommendations is expected in November. ■

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## Letting the light in

When the Unity Reed High School campus in Manassas, Va., opened 50 years ago, windows were not a priority. So for many years, teachers and students spent numerous hours in classrooms without the benefits of daylight.

But a brighter future has arrived at Unity Reed this school year. *The Prince William Times* reports that the Prince William County school district has undertaken a significant modernization at Unity Reed, which until 2020 was named Stonewall Jackson High School.

Workers have added windows to 30 Unity Reed classrooms, and the entire front façade of the building has a new look. Construction workers will return next summer to add more windows to classrooms in the back of the building. It is one of five school campuses in the Prince William County district where additional windows will be installed in the coming years.

After the district constructed high schools in recent years that featured plenty of windows that admitted ample quantities of daylight into classrooms, many of Unity Reed's 2,400 students complained to administrators that the facility needs on their aging campus were not a priority. Students and teachers complained that the Unity Reed's solid-brick exterior "looked like a prison."



Image courtesy of Google.

In early 2020, district administrators heard those complaints and proposed installing windows at Unity Reed and other aging schools. The Prince William County School Board subsequently approved an allocation of about \$30.2 million to install windows at four high schools—Unity Reed, Osbourn Park, Gar-Field and Woodbridge—and Graham Park Middle School. All were built in the 1960s and 1970s when many school designs eschewed windows in the name of better energy efficiency.



Image courtesy of Dodgeland School District.

## Wisconsin district unveils campus renovation

Skylights to bring natural light into the building interior are one of the notable features of the renovated Dodgeland School District building in Juneau, Wis.

*The Watertown Daily News* reports that the upgraded campus, paid for with a \$17 million bond referendum approved in 2020, welcomed students in September.

The improvements include a 4,000-square-foot addition that houses STEAM (Science, Technology, Engineering, Arts and Mathematics) classrooms, large spaces outside classrooms for students to work together, shop spaces in the middle/high school portion of the building, and new playground equipment

Dodgeland Superintendent Jessica Johnson said the renovation and expansion provides badly needed additional spaces for students.

## Texas district bolsters window security

The Round Rock (Texas) Independent School District has installed bullet-resistant film on the glass of front doors and windows at all of its elementary and middle school campuses.

The district says it paid for the window security with some of a \$815,000 grant from the Texas Education Agency to bolster security. In addition to fortifying its windows, the district has installed more fencing and surveillance cameras at its schools and a software service that keeps track of students' online interactions and activities.

Many school systems across the nation have sought to bolster campus security in the aftermath of the May shooting at Robb Elementary in Uvalde, Texas, that killed 19 children and two adults. The Arkansas School Safety Commission recommended in August that school windows should be covered with shatterproof film. ■



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# STOP Vehicle Attacks



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## Morgan State unveils first new residence hall in more than 3 decades

Morgan State University, a historically black institution in Baltimore, has opened Thurgood Marshall Hall, a \$95 million residence hall with some 670 beds for undergraduate and graduate students.

University President David K. Wilson said in a message to students that the 10-story facility is the first new residence hall built on Morgan State's Campus in more than 30 years. He cautioned that when the building opened in August, workers were still



**Thurgood Marshall Hall is the first new residence hall at Morgan State University in more than 30 years.**  
*Image courtesy of Morgan State University.*

completing several interior public spaces and doing final grading and landscaping to the grounds immediately surrounding the building. In addition, the dining facility in the hall is not finished; university officials expect it to be operating by the end of the semester.

The building will form a new campus hub for student activity. Building amenities include fitness centers, study rooms, and a convenience store.

The residence hall also pays tribute to Thurgood Marshall, a Baltimore native and the first African American Justice of the U.S. Supreme Court. Exhibits detailing his legacy will be woven into the design of the building.

The architect is Hord Coplan Macht.

## Belmont University's newest residence hall is its largest

The newest residence hall at Belmont University in Nashville, Tenn., is also its largest.

The university has opened the \$98 million Caldwell Hall as part of Belmont's residential village on the southeast side of campus. The new facility can accommodate 606 students and increases Belmont's capacity for on-campus living to more than 60% of its students.

The building primarily features four-bedroom units, along with single studios and two-to-six-bedroom units, all with private bedrooms. Amenities include flexible basement space, practice rooms, a fitness center, a two-story lobby featuring study and gathering areas, a laundry room and two exterior courtyards.

The architect is ESa, and the contractor is R.C. Matthews.

At 268,000 square feet, Caldwell Hall is Belmont's largest residence hall. The university has added more than 4,300 resi-



**Caldwell Hall is the newest residence hall at Belmont University.**  
*Image courtesy of Belmont University.*

dential spaces on campus in the past several years through the construction of 11 residence halls.

## University of Louisville opens another residence hall for first-year students.

For the second year in a row, the University of Louisville has opened a residence hall for first-year students.

The new hall, with the straightforward name of New Residence Hall, has been built on the main campus directly opposite Belknap Residence Hall, which opened in 2021.

The 450-student, traditional-style housing facility provides space primarily for first-year students in one- and two-bedroom units on five floors. It also will be home to the university's new Center for Engaged Learning, which provides students with hands-on job and research opportunities.



**The New Residence Hall at the University of Louisville will accommodate about 450 students.**  
*Image courtesy of Messer Construction.*

University officials say that together, the two residence halls have placed 900 first-year students close to numerous campus amenities such as Swain Student Activities Center, the Interfaith Center and Ekstrom Library.

Louisville says it has invested \$87 million in these two student housing projects. To make room, the university demolished Miller and Threlkeld halls, which had been home to first-year students for close to six decades.

The New Residence Hall was designed with input from students and offers common areas with abundant natural light, classrooms, private study rooms, a game room, a kitchen and several laundry areas. It also features private bathrooms.

## New residence hall at Missouri State University

Missouri State University has opened a 400-student residence hall on its Springfield campus.

Heitz House was built through a public-private partnership between the university and Bryan Student Housing LLC. Missouri State took ownership of the \$24 million residence hall in July.

The seven-story building has four stories of parking with three stories of living space on top. It has single-user private bathrooms, shared community spaces, a dining center and retail space.

The university partnered in May 2018 with Bryan Student Housing to build the residence hall, but because of Covid-19, completion of the project was delayed until this year.



The Heitz House residence hall at Missouri State University has space for 400 students. Image courtesy of Missouri State University

## \$215 million residence hall approved for University of Connecticut



A 657-bed residence hall is scheduled to open in 2024 at the University of Connecticut in Storrs. Image courtesy of University of Connecticut.

The University of Connecticut has approved the construction of a \$215 million residence hall on the Storrs campus.

The facility will have about 657 beds and a dining hall with about 500 seats, the university says in a news release. The additional dining hall will shorten wait times at other campus dining facilities. Amenities in the residence hall will include lounges, common spaces, a game room, laundry facilities, bicycle storage, seminar rooms, meeting rooms, and multipurpose spaces.

The building is designed to meet LEED Gold requirements. Energy demands for the new building will be reduced by a geothermal system. The project also includes landscaped storm water management areas that will limit rainwater runoff to Mirror Lake.

The residence hall is expected to open in 2024.

## Suite-style living space opens at Cal State Fullerton

California State University, Fullerton, has opened a campus housing community that provides living space for 600 students.

Dubbed “The Suites,” the development consists of three new residence halls: Noble, Redwood and Laurel.

Eight students live together in a suite. The unit has four double-occupancy rooms, two bathrooms and a small kitchenette. Each floor has several suites with a common area.

The addition of this new facility will bring total on-campus housing capacity to 2,200 students.

“We need to meet the demand for student housing as we encourage more students to live on campus,” said Larry Martin executive director of Housing and Residential Engagement. “We’ve noticed a shift in students’ attitudes about on-campus living. They recognize the convenience and the opportunities to connect with campus resources while really getting to know their peers.” ■



A suite-style residential community for 600 students has opened at Cal State Fullerton. Image courtesy of California State University, Fullerton.

# AN OUNCE OF PREVENTION

By Mike Kennedy

Effective preventive maintenance in education facilities is a goal that schools and universities strive for, but too often they lack the resources to carry out such strategies effectively. That frequently leads schools to defer needed maintenance, which can cause more severe and costly maintenance problems, and result in building conditions that put the health and safety of students and staff at risk.

The impact of Covid-19 on school facilities has heightened the concerns about how students and staff are affected by the air quality in classrooms and other learning spaces, and those concerns remain paramount as the threat of Covid-19 looms over another school year.

The U.S. Environmental Protection Agency, as part of its Tools for Schools program, has produced a Preventive Maintenance Guidance manual to help schools establish an effective preventive maintenance program that enhances indoor air quality.

“A good preventive maintenance program includes routine and regular maintenance and repair, which keeps equipment and facilities performing reliably and as intended,” the guide says. It helps your equipment have a longer life span and saves schools from unexpected, costly repairs.

The EPA guide lists six components of preventive maintenance for indoor air quality.

**HVAC and Equipment:** Monitoring a school’s HVAC system using preventive maintenance helps detect problems before they become severe. The EPA says regular inspection and keeping the system clean and exhaust systems clear help prevent problems that could require expensive repairs. “For example, a missing filter could, over time, lead to plugged coils, reduce your HVAC system’s effectiveness, contribute to poor IAQ, and result in substantial repair or replacement costs to HVAC system components,” the guide says.

**Mold and Moisture:** Schools should conduct routine inspections for moisture, which can lead to indoor mold growth. Mold can grow on any organic surface if enough moisture and oxygen are available, the EPA says. “Facility neglect often leads to moisture problems, especially when roofs, plumbing or ventilation systems are not routinely inspected,” the guide says. “Mold can discolor surfaces, deteriorate building material, and lead to health problems for students and staff.”

**Green Cleaning and Materials Selection:** School maintenance workers should choose products with few effects on human health and the environment. “Look for products and services that minimize waste, conserve energy or water, or reduce the amount of toxics used or left behind,” the guide says. When new schools are being constructed, administrators should discuss with architects and facility planners which materials will be used in the construction.

**Integrated Pest Management (IPM):** Schools should adopt IPM strategies that remove things that

pests need to survive— food, water and shelter— and block possible entry points to the building. Deferring maintenance of a building can lead to deterioration, which may enable pests to enter through wall cracks and find conditions where their numbers can multiply, such as leaky areas or poorly cleaned spaces. “Through routine inspections and keeping facilities and equipment in good working condition, IPM can keep pests at bay and prevent possible reentry,” the guide says.

**Source Control:** Schools can minimize the use of hazardous chemicals at schools by using pollution prevention principles and looking for safer alternatives. “Consider the possible health, safety and environmental consequences before buying a particular chemical,” the guide says. “Create a purchasing policy that promotes environmentally preferable products, and conduct periodic inventories of the chemical products in your school to identify hazards.”

**Energy Efficiency:** Poor energy management can create indoor air quality problems that may result in poorly ventilated spaces. Carrying out preventive maintenance can improve energy efficiency while ensuring that IAQ is protected. School districts also can include IAQ protections in their energy efficiency retrofits and other building upgrade projects to make the best possible improvements without risking student and staff health.

The EPA points out several benefits that schools will see from carrying out or improving a preventive maintenance program:

- Saves energy and reduces operating costs.
- Reduces the number of emergency repairs, freeing up resources.
- Enables flexible maintenance schedules.
- Prevents premature equipment breakdowns.
- Enables maintenance staff to identify minor problems quickly, reducing expensive repair costs and unplanned downtime.
- Ensures the building will run smoothly and not disrupt the educational process.
- Keeps equipment running efficiently.
- Contributes to a healthful learning environment for students and staff. ■

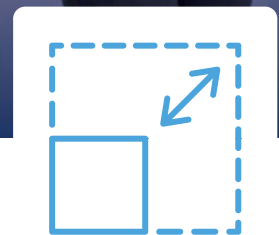
Preventive maintenance strategies in schools can help protect the health and safety of students and staff.

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# AS&U 100

*The disruptive effects of a global pandemic led to a widespread drop in enrollment numbers for public school districts, including nearly all of the nation's largest systems.*

By Mike Kennedy



Enrollment in the Davis (Utah) district, the nation's 49th largest by enrollment, declined by 3.6% in 2020. Photo courtesy of Paul Rivera.

As the Baby Boom generation worked its way through the education system, student enrollment in U.S. public schools grew steadily and peaked at about 46 million in 1971. In the 1970s, the birth rate had slowed, and by 1984, the number of students attending public schools bottomed out at about 39.2 million, according to figures from the National Center for Education Statistics (NCES).

But in the decades that followed, the numbers have steadily increased; by 2019, nearly 50.8 million students were receiving their education in the nation's public schools.

Then came Covid.

When it became clear in March 2020 that Covid-19 was a highly contagious and potentially deadly disease, normal life in the United States ground to a halt, including the nation's education institutions. Nearly all schools and universities abruptly shut down in-person instruction for the rest of the 2019-20 school year, and when it was time for classes to resume for the 2020-21 school year, many of those students did not come back. Some may have transferred to private schools, some may have switched to homeschooling, and some may have fallen through the cracks and were not part of any education program.

The result was that from 2019-20 to 2020-21, the number of students enrolled in U.S. public schools fell by 1.4 million—a 2.7% drop, from 50.8 million to 49.4 million, about the same enrollment total for 2009-10.

The decline affected every region of the country—year-to-year enrollment fell in all 50 states and the District of Columbia. Oregon reported the largest percentage drop—8.1%, from 610,649 to 560,917, and Texas had the largest drop—122,592, from 5,495,398 students to 5,372,806, the NCES says.

The shrinking enrollment numbers also affected the districts in the AS&U 100 list of the largest U.S. public school systems. Their numbers declined at a greater rate—3.4%—than the national average. The 100 largest districts in 2020-21 accounted for about 10.7 million students; those districts had 11.1 million students in 2019-20.

(Note: To remain consistent with lists from previous years, the AS&U 100 uses data from the California Department of Education for districts in that state instead of NCES figures; the California numbers include charter school enrollment, and the federal numbers do not.)

## Widespread decline

All but four of the AS&U 100 reported enrollment declines in 2020-21. Enrollment numbers in five districts dropped by more than 10,000 from fall 2019 to fall 2020: New York City (-37,730); Los Angeles Unified (-21,941); Houston (-13,118), Miami-Dade County (-13,046), and Clark County, Nev., (-12,627).



The Osceola County (Fla.) district more than tripled its enrollment from 1990 to 2020. Photo courtesy of School District of Osceola County



**The Wake County (N.C.) district, the nation's 15th-largest, was one of many to report enrollment declines in 2020.** *Photo courtesy of Sean Busher Imagery.*

On a percentage basis, 15 of the 100 largest districts had enrollment declines of 5% or more—nine of those were in Texas: El Paso (8.3%), Austin (7.5%), Fort Worth (7.3%), North East (6.3%), Houston (6.2%), Aldine (5.9%), Dallas (5.7%), Lewisville (5.4%) and Round Rock (5.2%). The other districts with large percentage declines: Mesa Unified (7.6%), Albuquerque (6.0%), Metro Nashville (6.0%), Douglas County (6.4%), DeKalb County (5.4%), Winston-Salem Forsyth County (5.0%).

The four districts with enrollment increases were Frisco (1.3%) and Katy (0.9%) in Texas, Pasco, County, Fla., (0.6%) and Forsythe County, Ga. (1.2%). In comparison, 63 of the 100 largest districts in reported year-to-year enrollment increases from 2019-20 to 2020-21.

Enrollment figures are critical for most public school systems because they determine how much funding they receive. The large amounts of federal Covid relief funding may enable some school districts to avoid or delay financial difficulties in the short run, but if student numbers do not rebound after the threat of Covid has passed, schools may face budget problems.

The three states with the largest overall population and the most public school students also have the most representation on the AS&U 100. Texas, Florida and California claim 46 spots on the list. Texas has 20 districts in the AS&U 100, and they account for more than 1.5 million students. Florida has fewer districts on the list—15—but because those school systems are countywide entities, they account for more students—more than 2 million. Five of the 10 largest school districts are in Florida. The 11 California districts in the AS&U 100 account for 1.2 million students. Only one other state accounted for more than 1 million students in the AS&U 100—New York. It has only one district on the list, but New York City sits on top of the list as the largest school district in the nation with 1,094,138 students, according to city figures.

Because school districts have been formed in a variety of ways—some coincide with municipal boundaries, some stretch across multiple jurisdictions, some encompass entire counties (and one encompasses an entire state), some cover only elementary grades or only secondary grades—the size of a school district and whether it is large enough to be one of the nation's largest is somewhat arbitrary. Twenty-four states do not have any districts among the 100 largest in 2020-21.

## Long-term changes

Despite the widespread 2020 declines in enrollment, the list of districts on the AS&U 100 remained stable. Only one district from 2019-20—Santa Ana Unified in California—dropped off the list in 2020-21. Added to the 2020-21 list is Charleston County, S.C.



**New York City remains the largest U.S. district, but its 2020 enrollment dropped by more than 37,000 students.** *Photo courtesy of Stuart D. Phillips.*

To see the significant enrollment changes that have reshaped which school systems are among the nation's largest districts, one needs to look at the numbers over many years. The number of students attending schools in 2020 in the 100 largest districts is 27% greater than the number enrolled in those districts in 1990. Twenty-three of those districts have doubled their size over those 30 years—including eight districts in Texas: Frisco, Cypress-Fairbanks, Conroe, Round Rock, Lewisville, Fort Bend, Northside and Klein.

The district among the 100 largest that has by far grown the fastest in the last three decades is the Frisco district, about 30 miles north of Dallas. Its 2020 enrollment of 63,493 is more than 48 times larger than its 1990 enrollment of 1,310 students.

Other districts in the AS&U 100 with tremendous enrollment growth over 30 years: Loudoun County, Va., which has more than quintupled in size from 14,485 to 81,066; Douglas County, Colo., which is nearly five times the size it was in 1990 (13,125 to 62,979); and Osceola County, Fla., where enrollment has more than tripled to 68,640 from 19,514.

The Clark County (Nev.) district, already a large system in 1990, has seen its enrollment figures soar by nearly 200,000 students over 30 years, and has become the nation's fifth-largest district with 319,292 students. ■

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	District	State	2020-21	2019-20	Enrollment Change 2019 to 2020	% Enrollment Change 2019-2020	1990-91 Enrollment	30-year % Change
1	New York City (district data)	NY	1,094,138	1,131,868	-37,730	-3.33%	943,969	15.9%
2	Los Angeles Unified (state data)	CA	574,996	596,937	-21,941	-3.68%	625,086	-8.0%
3	Chicago	IL	341,382	347,484	-6,102	-1.76%	408,714	-16.5%
4	Miami-Dade County	FL	334,261	347,307	-13,046	-3.76%	292,023	14.5%
5	Clark County	NV	319,292	331,919	-12,627	-3.80%	121,959	161.8%
6	Broward County	FL	260,235	269,172	-8,937	-3.32%	161,101	61.5%
7	Hillsborough County	FL	218,943	223,305	-4,362	-1.95%	124,337	76.1%
8	Orange County	FL	199,089	208,875	-9,786	-4.69%	102,672	93.9%
9	Houston	TX	196,943	210,061	-13,118	-6.24%	194,435	1.3%
10	Palm Beach County	FL	187,057	194,675	-7,618	-3.91%	105,712	76.9%
11	Fairfax County	VA	180,028	188,887	-8,859	-4.69%	128,766	39.8%
12	Gwinnett County	GA	177,401	180,589	-3,188	-1.77%	63,930	177.5%
13	Hawaii	HI	176,441	181,088	-4,647	-2.57%	171,309	3.0%
14	Montgomery County	MD	160,564	165,267	-4,703	-2.85%	103,757	54.8%
15	Wake County	NC	159,802	163,404	-3,602	-2.20%	64,266	148.7%
16	Dallas	TX	145,113	153,861	-8,748	-5.69%	135,320	7.2%
17	Charlotte-Mecklen- burg	NC	142,733	149,845	-7,112	-4.75%	77,069	85.2%
18	Prince George's County	MD	131,646	135,952	-4,306	-3.17%	108,868	20.9%
19	Duval County	FL	126,815	130,279	-3,464	-2.66%	111,142	14.1%
20	Philadelphia	PA	124,111	130,617	-6,506	-4.98%	190,798	-35.0%
21	San Diego Unified (state data)	CA	118,523	122,916	-4,393	-3.57%	121,152	-2.2%
22	Cypress-Fairbanks	TX	114,881	117,446	-2,565	-2.18%	41,196	178.9%
23	Baltimore County	MD	111,084	115,038	-3,954	-3.44%	86,737	28.1%
24	Memphis-Shelby County	TN	110,780	113,198	-2,418	-2.14%	106,223	4.3%
25	Cobb County	GA	107,379	112,097	-4,718	-4.21%	69,441	54.6%
26	Northside	TX	103,151	107,817	-4,666	-4.33%	50,229	105.4%
27	Polk County	FL	100,495	102,952	-2,457	-2.39%	64,579	55.6%
28	Pinellas County	FL	96,068	99,772	-3,704	-3.71%	92,976	3.3%
29	Jefferson County	KY	95,911	100,348	-4,437	-4.42%	91,450	4.9%
30	Lee County	FL	94,927	95,613	-686	-0.72%	43,240	119.5%
31	DeKalb County	GA	93,470	98,800	-5,330	-5.39%	74,108	26.1%
32	Fulton County	GA	90,300	93,897	-3,597	-3.83%	41,195	119.2%
33	Prince William County	VA	89,548	92,237	-2,689	-2.92%	41,888	113.8%



	District	State	2020-21	2019-20	Enrollment Change 2019 to 2020	% Enrollment Change 2019-2020	1990-91 Enrollment	30-year % Change
34	Denver	CO	89,081	92,143	-3,062	-3.32%	59,013	51.0%
35	Katy	TX	84,176	83,423	753	0.90%	59,078	42.5%
36	Anne Arundel County	MD	83,044	84,984	-1,940	-2.28%	65,011	27.7%
37	Albuquerque	NM	83,031	88,312	-5,281	-5.98%	88,295	-6.0%
38	Alpine	UT	82,800	83,540	-740	-0.89%	38,852	113.1%
39	Loudoun County	VA	81,066	83,606	-2,540	-3.04%	14,485	459.7%
40	Metro Nashville	TN	80,494	85,588	-5,094	-5.95%	67,452	19.3%
41	Jefferson County	CO	80,099	84,078	-3,979	-4.73%	76,275	5.0%
42	Baltimore City	MD	77,856	79,187	-1,331	-1.68%	108,663	-28.4%
43	Pasco County	FL	77,125	76,661	464	0.61%	33,891	127.6%
44	Fort Worth	TX	76,858	82,891	-6,033	-7.28%	69,163	11.1%
45	Fort Bend	TX	76,735	77,756	-1,021	-1.31%	36,270	111.6%
46	Austin	TX	74,871	80,911	-6,040	-7.46%	65,797	13.8%
47	Greenville County	SC	74,094	77,302	-3,208	-4.15%	51,471	44.0%
48	Fresno Unified (state data)	CA	72,419	73,381	-962	-1.31%	71,500	1.3%
49	Davis	UT	72,082	74,773	-2,691	-3.60%	55,558	29.7%
50	Milwaukee	WI	71,510	74,683	-3,173	-4.25%	92,784	-22.9%
51	Brevard County	FL	70,996	73,962	-2,966	-4.01%	56,503	25.6%
52	Guilford County	NC	70,047	72,682	-2,635	-3.63%	24,575	185.0%
53	Long Beach Unified (state data)	CA	69,708	72,002	-2,294	-3.19%	71,342	-2.3%
54	Osceola County	FL	68,640	69,925	-1,285	-1.84%	19,514	251.7%
55	Seminole County	FL	66,226	68,096	-1,870	-2.75%	48,831	35.6%
56	Virginia Beach	VA	65,612	68,706	-3,094	-4.50%	70,266	-6.6%
57	Washoe County	NV	64,988	67,854	-2,866	-4.22%	38,466	68.9%
58	Conroe	TX	64,563	64,799	-236	-0.36%	23,288	177.2%
59	Elk Grove Unified (state data)	CA	63,947	64,480	-533	-0.83%	27,246	134.7%
60	Frisco	TX	63,493	62,705	788	1.26%	1,310	4746.8%
61	Granite	UT	63,430	66,276	-2,846	-4.29%	78,554	-19.3%
62	Aldine	TX	63,302	67,259	-3,957	-5.88%	41,372	53.0%
63	Douglas County	CO	62,979	67,305	-4,326	-6.43%	13,125	379.8%
64	Volusia County	FL	61,088	63,009	-1,921	-3.05%	48,342	26.4%
65	Chesterfield County	VA	60,840	62,614	-1,774	-2.83%	44,480	36.8%
66	North East	TX	60,483	64,539	-4,056	-6.28%	39,909	51.6%

	District	State	2020-21	2019-20	Enrollment Change 2019 to 2020	% Enrollment Change 2019-2020	1990-91 Enrollment	30-year % Change
67	Knox County	TN	59,169	61,545	-2,376	-3.86%	50,429	17.3%
68	San Francisco Unified (state data)	CA	58,705	61,031	-2,326	-3.81%	61,688	-4.8%
69	Mesa Unified	AZ	57,956	62,703	-4,747	-7.57%	62,470	-7.2%
70	Howard County	MD	57,293	58,868	-1,575	-2.68%	29,949	91.3%
71	Jordan	UT	57,267	57,771	-504	-0.87%	64,991	-11.9%
72	Arlington	TX	56,840	59,532	-2,692	-4.52%	44,958	26.4%
73	Cherry Creek	CO	54,184	56,228	-2,044	-3.64%	29,210	85.5%
74	Seattle	WA	53,973	55,986	-2,013	-3.60%	43,593	23.8%
75	Garland	TX	53,921	55,701	-1,780	-3.20%	37,978	42.0%
76	Klein	TX	52,824	54,096	-1,272	-2.35%	26,220	101.5%
77	Mobile County	AL	52,460	53,941	-1,481	-2.75%	67,203	-21.9%
78	Clayton County	GA	52,149	54,424	-2,275	-4.18%	34,754	50.1%
79	Omaha	NE	51,914	53,483	-1,569	-2.93%	41,699	24.5%
80	Winston-Salem Forsyth County	NC	51,843	54,566	-2,723	-4.99%	37,625	37.8%
81	San Bernardino City Unified (state data)	CA	51,330	53,037	-1,707	-3.22%	40,589	26.5%
82	Corona-Norco Unified (state data)	CA	51,318	52,557	-1,239	-2.36%	23,036	122.8%
83	Forsyth County	GA	51,152	50,544	608	1.20%	7,742	560.7%
84	Atlanta	GA	51,012	52,416	-1,404	-2.68%	60,714	-16.0%
85	San Juan Unified (state data)	CA	50,762	50,820	-58	-0.11%	47,690	6.4%
86	El Paso	TX	50,661	55,253	-4,592	-8.31%	64,092	-21.0%
87	Pasadena	TX	50,614	52,878	-2,264	-4.28%	37,643	34.5%
88	District of Columbia	DC	50,317	51,440	-1,123	-2.18%	80,694	-37.6%
89	Henrico County	VA	50,191	51,786	-1,595	-3.08%	32,638	53.8%
90	Plano	TX	50,154	52,629	-2,475	-4.70%	28,398	76.6%
91	Capistrano Unified (state data)	CA	49,974	50,419	-445	-0.88%	26,852	86.1%
92	Lewisville	TX	49,361	52,189	-2,828	-5.42%	20,776	137.6%
93	Cumberland County	NC	49,278	50,750	-1,472	-2.90%	44,612	10.5%
94	Manatee County	FL	49,181	50,088	-907	-1.81%	26,207	87.7%
95	Detroit	MI	48,782	50,644	-1,862	-3.68%	168,116	-71.0%
96	Oakland Unified (state data)	CA	48,704	49,588	-884	-1.78%	52,095	-6.5%
97	Charleston County	SC	48,330	50,299	-1,969	-3.91%	43,667	10.7%
98	Round Rock	TX	48,302	50,953	-2,651	-5.20%	19,636	146.0%
99	Jefferson Parish	LA	48,160	49,862	-1,702	-3.41%	58,177	-17.2%
100	Boston	MA	48,112	50,480	-2,368	-4.69%	60,543	-20.5%

## HIGHER EDUCATION: INSTITUTIONS WITH LARGEST ENROLLMENT, FALL 2020

The rush to virtual learning and online instruction in March 2020 accelerated a trend that was already being seen at many colleges and universities. Thousands of students had already taken advantage of the flexibility and accessibility of online courses—in fall 2019, the four institutions with the most students enrolled were primarily online programs.

When Covid-19 prevented most college students from continuing on-campus classes and in many cases forced them to leave their campus housing, virtual courses became a more feasible alternative for those unwilling to wait out the uncertainty of whether campuses would be allowed to return to more normal operations.

So it's not a surprise that in fall 2020 institutions that cater to online students were once again at the top of the list of the schools with the largest enrollments. Western Governor's University, Southern New Hampshire University, Grand Canyon University and Liberty University reported having the most students enrolled, and each of them had a significant increase in their numbers compared with pre-Covid numbers of the previous year.

Several other institutions among those with the largest enrollments also are primarily geared toward online students—University of Phoenix, University of Maryland Global Campus, Arizona State University Digital Immersion, and the American Public University System.

One institution that showed up for the first time near the top of the enrollment list is Dallas College, with more than 74,000 students. The seemingly large enrollment increase results from the renaming of the Dallas County Community College District and combining the enrollments from its seven campuses into one.

Overall, higher education enrollment in fall 2020 experienced a decline similar to what K-12 districts experienced. NCES figures show that in fall 2020, the number of students enrolled in U.S. postsecondary institutions was 19,355,811, compared with 20,006,901 in fall 2019.

## TOP 25 HIGHER EDUCATION

Institution	Location	Fall 2020 Enrollment	Fall 2019 Enrollment
Western Governors University	Salt Lake City UT	147,866	136,139
Southern New Hampshire University	Manchester NH	134,345	113,514
Grand Canyon University	Phoenix AZ	103,427	96,211
Liberty University	Lynchburg VA	93,349	85,586
The Pennsylvania State University	University Park PA	89,816	91,427
University of Phoenix-Arizona	Phoenix AZ	89,763	94,724
Arizona State University Campus Immersion	Tempe AZ	74,795	53,286
Dallas College	Dallas TX	74,781	12,947
University of Central Florida	Orlando FL	71,881	69,402
Texas A & M University-College Station	College Station TX	70,418	68,726
Lone Star College System	The Woodlands TX	70,109	74,300
Ivy Tech Community College	Lawrenceburg IN	63,809	72,689
Ohio State University-Main Campus	Columbus OH	61,369	61,391
Florida International University	Miami FL	58,836	58,711
University of Maryland Global Campus	Adelphi MD	58,526	58,281
Arizona State University Digital Immersion	Tempe AZ	53,993	45,073
University of Florida	Gainesville FL	53,372	52,407
Northern Virginia Community College	Annandale VA	52,873	51,822
New York University	New York NY	52,775	52,885
University of Illinois Urbana-Champaign	Urbana IL	52,679	51,605
University of Minnesota-Twin Cities	Minneapolis MN	52,017	51,327
University of South Florida	Tampa FL	50,626	44,246
The University of Texas at Austin	Austin TX	50,476	51,090
Rutgers University-New Brunswick	New Brunswick NJ	50,411	50,173
American Public University System	Charles Town WV	50,047	45,249



Renovations in Severance Hall at Wellesley College sought to improve air comfort while maintaining architectural elements.

All images courtesy of Finegold Alexander Architects

# Fresh air and less energy

By Mike Kennedy

**C**ovid-19 has pushed indoor air quality to the forefront of concerns that schools and universities have about their facilities. But even before the emergence of the coronavirus and the global pandemic that followed, many education institutions were taking steps to make sure that the spaces where students were spending most of their time were safe and healthful.

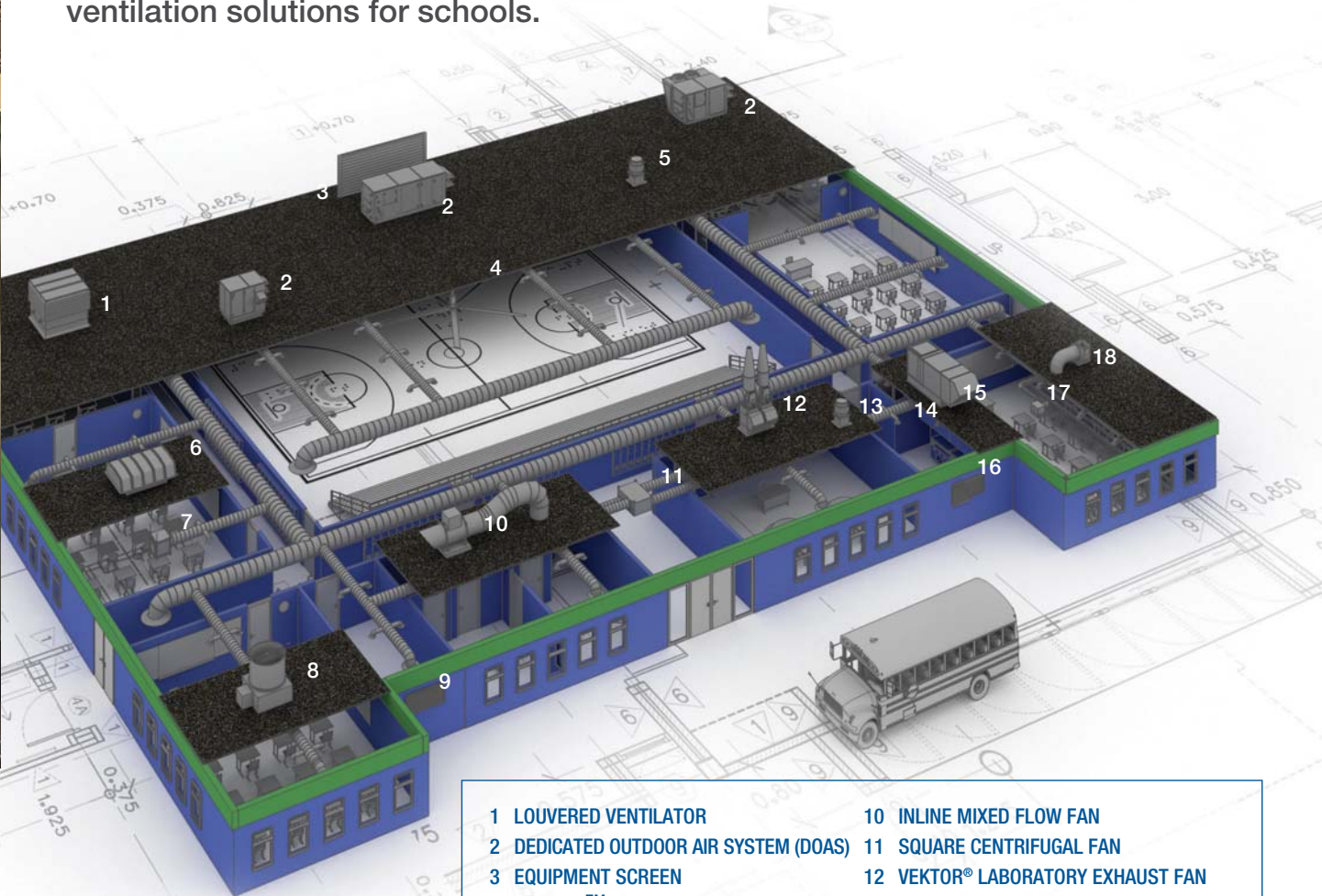
“Pre-Covid, some of the work we were doing in schools did focus on indoor air quality, specifically from the aspect of asthma,” says Rebecca Perry, president and director of sustainability at Finegold Alexander Architects in Boston. “Indoor air quality is a huge problem. Part of the reason is the age of our schools. So many of them were built in the 50s and the 60s. Many of them, particularly in the Northeast, were equipped with gas-fired boilers that feed radiators. They don’t even have fresh air.”

The response to Covid-19 over the last two years has persuaded many of those responsible for education facilities to focus more intently on providing facilities with



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good indoor air quality that are safe and healthful for students and staff.

“For a lot of years, we’ve had people beating the drum about how much time we spent indoors, the lack of indoor air quality, how it’s just plain not good for people,” Perry says. “The pandemic has definitely driven a conversation that can become as wide-ranging as it should be—about everything from viruses to forever chemicals to the materials that go into buildings. It has enabled a more open and hopefully productive dialogue about how we can all work to make the environment better.”

### Addressing older buildings

Upgrading older educational facilities can be more complicated than improving heating and ventilation, or installing a more efficient air conditioning system.

“In the New England region, most of these campuses don’t have dedicated air systems because the buildings are not used in the summer primarily, especially the residence halls,” says Lara Pfadt, an architect and sustainability strategist at Finegold Alexander.

More recently, some college campuses have identified summer use of their facilities as a potential revenue source and are looking to improve ventilation and air quality in their buildings, Pfadt says. But at the same time, these campuses have prioritized reduction or elimination of greenhouse gas emissions (GHG) on campus.

## On the Agenda: Air Quality

The Biden Administration says it will continue helping schools to improve the air quality in their facilities, as part of an ongoing effort to combat the spread of Covid-19 and other airborne diseases

In a back-to-school message, the White House signaled that upgrading ventilation systems and other steps to boost air quality remains a priority. A 2020 report from the Government Accountability Office found that the heating, ventilation, and air conditioning (HVAC) systems in thousands of U.S. schools were inadequate.

“Effective ventilation and air filtration are important parts of Covid-19 prevention,” the White House message says. “In addition to other layered prevention strategies, taking actions to improve indoor air quality can reduce the risk of exposure to particles, aerosols, and other contaminants, reduce the spread of Covid-19, and improve the health of building occupants.”

Schools can use federal Covid relief funding from the American Rescue Plan to improve ventilation by inspecting, repairing, upgrading, and replacing HVAC systems; purchasing and installing air conditioners, fans, portable air cleaners, and germicidal UV light systems; and repairing windows, doors, and dampers that let fresh air into school buildings, the White House says.

The White House plans to recognize schools that have been leaders in improving indoor air quality. The Department of Energy’s Efficient and Healthy Schools Campaign announced recognition earlier this year for several districts in four areas: HVAC inspection and maintenance for indoor air quality; efficient HVAC for indoor environmental quality; ongoing monitoring and analytics for HVAC performance; and team approach to support strategic investments in efficient and healthy schools.

Among the school systems recognized: Charleston County and Greenville County in South Carolina; Adams 12 Five Star and Boulder Valley in Colorado; Newark, N.J.; Mariposa County, Calif.; Columbia, Mo.; and Davis, Utah. The Efficient and Healthy Schools Campaign plans for recognition in the coming school year will continue to prioritize projects that accelerate indoor air quality improvements.

The Administration says it also is collaborating with organizations that provide guidance and technical support to help make indoor air quality improvements easier for schools to navigate. Those include HVAC professional associations, including the American Society of Heating, Refrigerating and Air-Conditioning Engineers, International Association of Sheet Metal, Air, Rail, and Transportation Workers, National Energy Management Institute, and the Sheet Metal and Air Conditioning Contractors’ National Association.

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In the aftermath of Covid-19, the renovation of Severance Hall at Wellesley College sought to provide more living space for students.

“They often have really high climate goals, so they don’t want to go immediately to air conditioning buildings,” Pfadt says.

Climate commitments have led many higher education institutions to develop specific targets for reducing emissions.

“It’s driving a whole series of projects on campuses where they have central energy plants and make their own electricity,” Perry says. “There’s a lot of fossil fuel input into making the steam and a lot of greenhouse gas emissions come out of it.”

Curtailling those emissions means finding a different way to generate electricity.

“They’re looking at going to different energy plant setups, looking at geothermal, at different kinds of energy centers and in many cases taking a steam loop and turning it into a low-temperature hot water loop,” says Perry.

### Reducing emissions

One of those colleges with ambitious climate goals is Wellesley College in Wellesley, Mass., which has committed to substantially reducing greenhouse gas emissions (GHG) on its campus. In pursuit of its objective to reduce GHG by 90% by 2040, Wellesley embarked on improvements that called for changing from steam and high-temperature hot water for space heating on campus to a low-temperature water loop. Finegold Alexander is the architect on the project.

The switch to low temperature water at Wellesley will support potential geothermal installations in the future and help achieve the goal of reducing carbon emissions.

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Planned upgrades at Wellesley College include converting the campus energy system from a steam distribution loop to low temperature hot water.

Another aspect of the Wellesley work is the renovation of Severance Hall, a student residence that was built in 1926. The emphasis in the Severance Hall upgrades is on air comfort.

“The driver of this project is the energy efficiency of the building,” says Pfadt. “They are creating these cool spaces within the building that are running higher levels of air exchange.”

The areas targeted for air cooling include dining areas or other spaces where people tend to congregate.

In addition, design decisions after the Covid-19 led to providing students more space in their living areas and having bathrooms and kitchenettes that can be closed off in case students have contracted a bug or need to quarantine, Pfadt says.

As architects, Perry and Pfadt also have tried to make sure that the engineering-based solutions for improving indoor air quality in buildings are balanced with the desire to maintain the character and other architectural features of the building.

“How we change the central generation of energy is very much an engineering exercise,” Perry says. “Somebody needs to help sort out and prioritize what are the different ways we can deal with that when we get to the architecture...What we’re doing is bringing the design thinking and the holistic approach of an architect to the problem.” ■

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# Getting Schooled on **CYBERATTACKS**

*Education institutions need to bolster protections for their technology infrastructure to deter cyberattacks and recover quickly when one occurs.*

By Mike Kennedy

**A**s students and staff return to classrooms and lecture halls for another school year, education administrators must make sure they have systems in place to provide a safe and secure learning environment—protecting people and property not only from physical threats, but also from virtual attacks online intruders.



Cybersecurity experts say preparing for the possibility of a cyberattack will help school systems avoid succumbing to ransom demands.  
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## security

Cyberattacks have been a problem for several years at schools and universities, which are heavily dependent on technology for their operations. But the number of attacks escalated in 2020 as education institutions coping with the Covid-19 pandemic had to rely to an even greater degree on technology to provide the online connections needed for virtual instruction.

Those working in the cybersecurity field say education institutions need to do a better job protecting their technology infrastructure from attack, but if they take steps to improve security, they can recover quickly from attacks and avoid paying ransom.

“It’s all about being resilient and being prepared—and once an attack happens, being able to recover from it,” says Lisa Plaggemier, executive director of the National Cybersecurity Alliance.

### Types of threats

Cybersecurity breaches at a school may encompass everything from students circumventing restrictions so they can look at a forbidden website to a sophisticated and malicious attack that disables an entire technology network

The Cybersecurity & Infrastructure Security Agency (CISA), part of the Department of Homeland Security, defines some of the common cyberattacks on education institutions:



Greater reliance on online connections after the Covid-19 outbreak has been blamed for an increase in cyberattacks on school systems.

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### Q&A with Jane Smith

Principal, ABC Firm

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- **Phishing:** a fraudulent attempt to obtain sensitive information or data, such as usernames, passwords, and credit card or bank account details, by disguising oneself as a trustworthy entity.
- **Denial of service:** Legitimate users are unable to access information systems, devices, or other network resources because of the malicious actions of a cyber attacker.
- **Ransomware:** An attacker steals and threatens to disclose confidential student and staff data unless the school pays a ransom.

### Targeting schools

Anyone with a computer and internet connection is a potential victim of a cyberattack, and education institutions are not the only entities at risk. But many schools are more enticing targets for cyber thieves because their technology infrastructure is more vulnerable to attacks.

“They’re going to pick on any organization that they think is a soft target, that isn’t prepared,” says Plaggemier. “If you are behind the times at all with your technology, you’re a softer target.”

School systems may be vulnerable when they don’t train their employees not to click on phishing emails, or if they don’t have good email filtering. They may find their organizations exposed if their firewall or their anti-virus software is not up to date.

“Any of those basic technology hygiene issues—if you get too far behind, you’re a softer target,” Plaggemier says.

Many school systems have fallen behind in protecting their computer systems, Plaggemier asserts. In the rush to provide students and staff with technological advancements that enhance learning and teaching, they may be less diligent in making sure the latest gadgets and software don’t create security problems.



Classroom technology can make some schools vulnerable to cyberattacks.

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# SECURITY TIPS

The National Initiative for Cybersecurity Careers and Studies (NICCS) has provided these cybersecurity tips for students and teachers returning to school:

- Create strong passwords for new (and old) accounts.
- Enable multi-factor authentication when possible.
- Be suspicious of unsuspecting emails – double check links and attachments before opening.
- Lock all devices when not in use (laptops, tablets, phones, etc.).
- Keep all software and apps up to date.
- Limit social media networks to people you actually know.



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“Schools are very quick to want kids to have the latest technology,” says Plaggemier. “But if you just go into it with rose-colored glasses and say, ‘Look at all the great stuff the kids are going to be able to do,’ in this day and age, it’s a bit naive. When you bring in the technology without thinking about security, without thinking about the downside, or what could possibly go wrong, there is potential for harm. It’s like letting kids play in traffic or in the roughest part of town where there’s predators and criminals. It’s a free-for-all.”

## Outside access

Education institutions have to be vigilant not only about protecting their software and technology infrastructure, but also about ensuring that the vendors working with schools have equally strong security practices.

“You have to make sure that the companies you are doing business with have met your standard for protecting your data,” Plaggemier says.

The technology that many schools use will have student and staff information that is stored in third-party systems, and that data could be at risk if the third party’s security standards don’t measure up. “What a school really needs to worry about is, does it have a third-party risk assessment process?” Plaggemier says. “Does it ask those vendors to provide proof that they’re doing their utmost to protect students’ and employees’ data? It can’t be just a checkbox exercise. It’s needs to be a substantive conversation that they’re having.”

## Be prepared

CISA recommends that schools take the following steps to help deter cyberattacks:

- Patch operating systems, software, and firmware as soon as manufacturers release updates.
- Regularly change passwords to network systems and accounts, and avoid reusing passwords for different accounts.

- Set antivirus and anti-malware solutions to automatically update and conduct regular scans.
- Monitor privacy settings and information available on social networking sites.
- Configure network firewalls to block unauthorized IP addresses and disable port forwarding.

If an attack does occur, advanced preparation will help a school system contain the damage and recover quickly.

“It’s all about employees knowing what to do,” says Plaggemier. “Get off the network as soon as you can to keep [the attack] from spreading. Shut down your machine. And then, the IT folks should have backups, so you can roll over to your backups. It’s important to have the backup files structured properly so that the ransomware can’t spread to the backup files.”

That preparation includes going through possible attack scenarios as a regular exercise to anticipate what steps to take in an actual incident.

Plaggemier recommends that education institutions conduct table-top exercises, such as those offered by CISA, at least once a year in which key personnel practice how they should respond to an attack.

“You need not just the technical folks to participate, but everybody that would be involved if you had a ransomware incident—the superintendent and other decision makers at the administrative level,” Plaggemier says. “The leadership folks—their eyes get opened and they realize, ‘I get it now,’ and budgets for the IT team suddenly appear that might not have been there before.”

## Don’t pay

Both the Cybersecurity Alliance and CISA are adamant that schools and universities should not succumb to threats and pay the ransom that thieves demand.

“Do not pay ransoms,” CISA urges. “Payment does not guarantee files will be recovered. It may also inspire cyber actors to target additional organizations, encourage other criminal actors to engage in the distribution of ransomware, and fund illicit activities.”

Plaggemier noted that a 2019 cyberattack on 23 local governments in Texas ended with minimal disruption and with none of the entities giving in to ransom demands. State officials, who stepped in on behalf of the local government, credited advanced preparation for lessening the effect of the attack.

“Schools should look at that example as a guide to not paying,” Plaggemier says. “Don’t wait until it’s too late. It will be very costly and very disruptive. ■

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# Sustainability Theater: Make sure cleaning vendors are doing more than performance art.

By Stephen Ashkin

Schools and universities have been true leaders on sustainability for many reasons. With a genuine interest in “doing it right,” education institutions can impart numerous lessons from their experience with the Covid pandemic.

Recalling the early days of the pandemic, Derek Thompson coined the term “hygiene theater.” He said that Covid-19 “has reawakened America’s spirit of misdirected anxiety, inspiring businesses and families to obsess over risk-reduction rituals that make us feel safer but don’t actually do much to reduce risk—even as more dangerous activities are still allowed. This is hygiene theater.”

Although it was important to acknowledge occupant concerns, hygiene theater often did little more than waste money, time and resources.

## Are we reporting our way to a false sense of security?

These same concerns are emerging when vendors make sustainability claims that are nothing more than performance art and do little to reduce the risk of harm to the environment, building occupants or employees.

Examples of what might be sustainability theater include a manufacturer placing a single, small solar panel on its roof while failing to address actual energy consumption; a product distributor leasing a single electric car or delivery vehicle while failing to address its fleet’s overall fuel efficiency; or a service provider promoting that it is owned by women or minorities yet failing to address the diversity, training, pay, benefits and other issues relating to its frontline workers.

Although these claims (and the marketing that often goes along with it) may make good theater, they often hide whether the vendor is making a real commitment to sustainability.

## Avoiding sustainability theater

To avoid sustainability theater, a vendor in the cleaning industry must authentically disclose how its products and services affect the environment and people. School and universities should consider requesting information on the following:

- **Who is it reporting to?** Connecting with numerous existing programs such as AASHE’s STARS, Climate Disclosure Program, ENERGY STAR, SmartWay Transport, LEED, WELL, B-Corp and more will indicate whether a vendor has a genuine commitment to sustainability. Simply put, some disclosure to respected organizations is an indicator of a real commitment, and certainly better than empty promises and theater.
- **Is its program managed by someone with expertise in sustainability?** Imagine hiring someone to teach a technical subject like chemistry. One would expect that person to have the relevant training, credentials and experience relating to the subject. Unfortunately, far too often vendors hire or



Image courtesy of Getty Images.

appoint someone to lead its sustainability efforts with little to no expertise in sustainability. To get a sense of someone’s expertise, check LinkedIn. If a background is loaded with sales, marketing, public relations, government affairs or other unrelated experience, theater may be the unintended result of this person’s lack of technical expertise in sustainability. And make no mistake about it – sustainability is highly technical and requires real expertise.

- **Consider if its numbers are objective and meaningful:** A vendor’s “numbers” will depend on what it does and what is important or “material.” For example, a manufacturer might report on its use of energy, water, waste and packaging; whereas a distributor of cleaning products might focus on the fuel efficiency of its delivery fleet; whereas a service provider might focus on diversity, wages, benefits, training, retention and other issues affecting its frontline workers. Unfortunately, far too often vendors provide no data, data that is unverified, or data that does not address the vendor’s most important impacts. Each of those can be an indication that it is simply performance art.

As Thompson wrote about hygiene theater, let’s ensure that money, time and resources are being used effectively – and the same applies to avoiding sustainability theater. ■

**Stephen Ashkin** operates the Green Cleaning Network, a 501(c)3 not-for-profit educational organization.



# Spaces for Student-Centered Learning

By Paul Erickson

*(This is part one of a three-part series)*

Educators and architects, breaking new ground in best practices for teaching and learning, are creating new types of school spaces. Studies on how physical space affects education and social well-being have led to new ways to support student-centered learning, empowering students to learn differently from historical doctrine.

Student-centered learning has shifted teacher-controlled protocols – moving from lecture settings to diverse teaching methods, from specified time and varied learning to specified learning outcomes in varied time frames, from teacher transfer of knowledge to student discovery and understanding, and from “one size fits all” to “each student is unique.” In school design, the shift moves from classrooms only to a variety of different learning spaces and settings.

Throughout preK-12 education years, students are taught to keep an open mind to innovative ideas and viewpoints. Educators and architects should use the same approach in designing spaces for schools. The terms “flexible,” “adaptable,” and “movable” describe capabilities that lead to spatial diversity, supporting student-centered learning.

## Physical Impact

Design a building’s structural system to enhance spatial flexibility. Long-span joists, deck, and floor systems allow for expansive column-free area and provide greater ability to configure space. Varied ceiling heights provide more flexibility to create interesting learning environments. Overhead structural beams designed to support suspended movable partitions allow spaces to quickly accommodate different learning arrangements. The outdated structural bearing-wall systems that form “classroom-corridor-classroom” eggcrate layouts, continuous wall obstructions, and constraints in design flexibility are hindrances to avoid.

In the design evolution of building circulation, codes have played a significant role. Building codes now permit facilities with building-wide fire suppression sprinkler systems to be “reclassified,” eliminating corridor fire-rating requirements (i.e., fire dampers, fire-rated doors, door closers, minimal openings and size limitations). This game-changer introduces glass walls, expansive operable wall and door openings, and furniture and furnishings into circulation space.

## Circulation Space

With reclassified corridor design, learning and collaboration areas and transparency between spaces are easily incorporated into circulation pathways. This change increases space utilization. Architects and educators now view circulation paths not only as exit routes, but also as learning areas for individualized study, small group work, impromptu collaboration, social interaction, and just-in-time teacher-student coaching.

At the Rushford-Peterson PreK-12 School in Minnesota, new types of activities are designed into widened circulation areas including tech/genius bars, “fishbowls” (i.e., glass-enclosed small group rooms), recessed nook seating areas, learning stairs, art display pods, learning graphics, and other features. Circulation space, which makes up 35% of the building’s square footage, is transformed into learning space for about 95% of the school day.

## Learning Zone

The term classroom could be renamed “learning zone” to emphasize the shift from teacher-directed class instruction to student-centered activity-based learning. Design the space with every wall as a technology-rich front wall. Provide mobile screens and operable partitions to create various-sized spaces with seating options for individual study and small group collaboration. Group six to eight learning zones together with support areas to form a learning cluster.

## Specialty and Core Spaces

Specialty spaces are integral to student-centered learning. They include flexible team learning areas, SMART rooms, maker spaces, STEM/STEAM areas, CTE spaces, FAB labs, science research labs, learning stairs and outdoor spaces.

Core spaces are taking on new purposes, shedding former designs and functions. Learning commons, student dining facilities, physical education spaces, administrative spaces, wellness/calming centers, school stores and coffee shops, black boxes for performance and presentation, windowed mechanical rooms for real-world learning, and other spaces are being reimaged. ■

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**Paul W. Erickson**, AIA/NCARB/REFP, executive officer & partner, is past president of ATSR Planners/Architects/Engineers. He has 45 years of experience in school planning, design, and construction. Erickson can be reached at [perickson@atsr.com](mailto:perickson@atsr.com).

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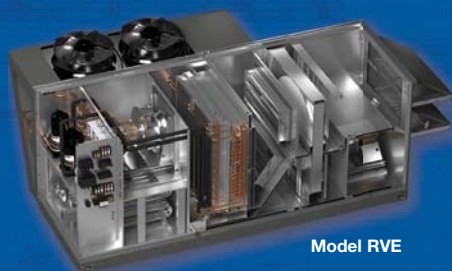
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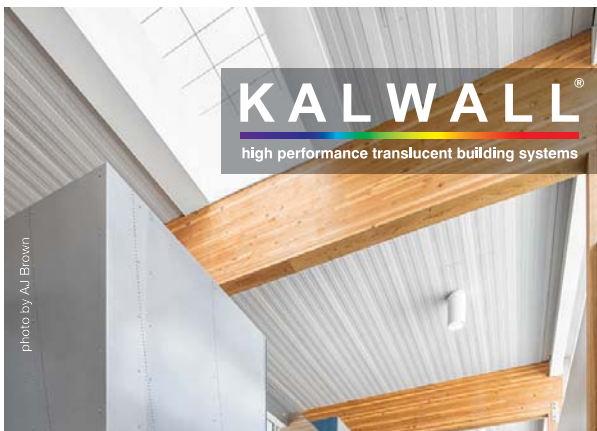


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## Attorneys general intervene on behalf of transgender student in Indiana

A coalition of 22 state attorneys general have filed an amicus brief in opposition to an Indiana school district's efforts to bar a transgender male student from using boys' bathrooms.

The attorneys general are arguing in support of a 13-year-old student, identified only as A.C., who sued the Metropolitan School District of Martinsville after being denied access to boys' bathrooms at the middle school he attends. A U.S. District Court judge ruled earlier this year that the school system must allow the student to use the bathrooms that align with his gender identity, and the district has appealed.

A.C. was born female, but identifies as male and has presented himself as male since he was 9 years old.

In their friend-of-the-court brief, the attorneys general, citing experiences in their states, assert that "ensuring transgender people have access to public facilities consistent with their gender identity—including access to common restrooms—benefits all, without compromising safety or privacy, or imposing significant costs."

The bathroom restrictions that the Martinsville district is seeking to impose violate Title IX regulations prohibiting sex-based discrimination, the attorneys general contend.

"[T]he policy fails to advance any legitimate interest such as protecting public safety or personal privacy," the brief argues. "Its only function is to stigmatize a particular group, which violates equal protection."

The attorneys general also cited the lower court's finding that the Martinsville district failed to show that allowing A.C. to use boys' bathrooms would infringe on the privacy of other students.

"No student has complained concerning their privacy," the lower court said. "The School District's concerns with the privacy of other students appears entirely conjectural. No evidence was provided to support the School District's concerns."

Court documents state that A.C. "sometimes tries to go the entire day without using the restroom at all," despite the physical discomfort it causes and serious health consequences that



could result. The brief cites a 2019 GLSEN survey in which 82% of transgender student said they had avoided school bathrooms because they felt unsafe or uncomfortable.

Evidence presented to the district court said the bathroom restrictions imposed on A.C. caused him to be late for class disrupted his ability to focus in school, worsened his anxiety and depression, made him feel isolated and made "being at school painful."

Martinsville's policy "needlessly denies A.C. something most people take for granted: the ability to use a public restroom consistent with one's lived experience of one's own gender," the brief says. "The policy singles out transgender students like A.C. and forces them either to forgo restroom use or to choose between two other detrimental options: using common restrooms corresponding to their sex assigned at birth or using special single-user restrooms."

Forcing transgender students to use bathrooms corresponding to their sex assigned at birth "subjects them to potential harassment and violence, and violates medical treatment protocols," the attorneys general assert.

The attorneys general say that the experiences in their states with nondiscriminatory bathroom policies do not compromise personal privacy.

"[N]ondiscriminatory policies have neither generated privacy issues nor imposed substantial costs on schools," the brief asserts. "The risk that students will see others' intimate body parts, or have their intimate body parts seen by others, is not presented by ordinary restroom use. And in any event, concerns about the presence of others (whether or not transgender) can be addressed—and are being addressed—by increasing privacy options for all students, without singling out transgender people for stigmatizing differential treatment."

Martinsville is about 35 miles southwest of Indianapolis.

The states represented in the amicus brief: California, Colorado, Connecticut, Delaware, Hawaii, Illinois, Maine, Maryland, Massachusetts, Michigan, Minnesota, Nevada, New Jersey, New Mexico, New York, North Carolina, Oregon, Pennsylvania, Rhode Island, Vermont, Washington, and the District of Columbia.

## Florida governor ousts 4 Broward County school board members

Florida Gov. Ron DeSantis has removed four Broward County School Board members from their positions after a grand jury faulted their actions in connection with the 2018 Marjory Stoneman Douglas High School mass shooting.



Image courtesy of Florida governor's office.

DeSantis said he was following the recommendations of the grand jury, which called for suspending the board members because of their "incompetence, neglect of duty, and misuse of authority."

The grand jury said that a safety-related alarm that could have possibly saved lives at Marjory Stoneman Douglas "was

and is such a low priority that it remains uninstalled at multiple schools." It also found that students in Broward County schools "continue to be educated in unsafe, aging, decrepit, moldy buildings that were supposed to have been renovated years ago."

The shooting attack at Marjory Stoneman Douglas High School in Parkland left 17 students and staff dead and 17 injured.

"These are inexcusable actions by school board members who have shown a pattern of emboldening unacceptable behavior, including fraud and mismanagement, across the district," DeSantis said in a news release.

DeSantis removed Patricia Good, Donna Korn, Ann Murray and Laurie Rich Levinson from office — and appointed Torey Alston, Manuel "Nandy" A. Serrano, Ryan Reiter and Kevin Tynan to replace them. ■

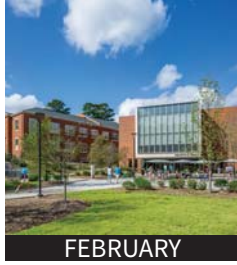
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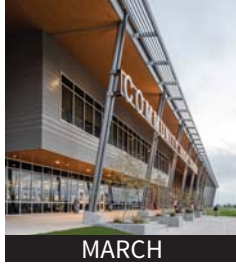
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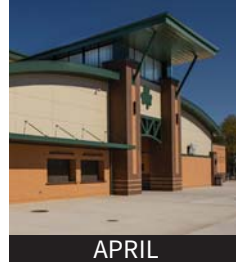
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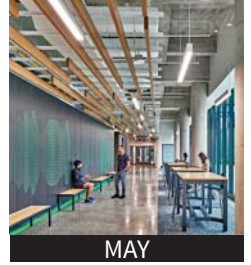
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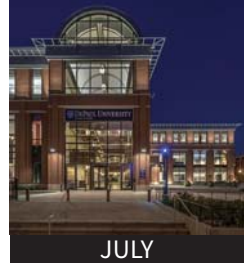
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