

Deferred Maintenance



The Backlog That Could Threaten Higher Ed's Viability
A big bill for deferred maintenance is coming due.

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The Daily Tar Heel

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UNIVERSITY

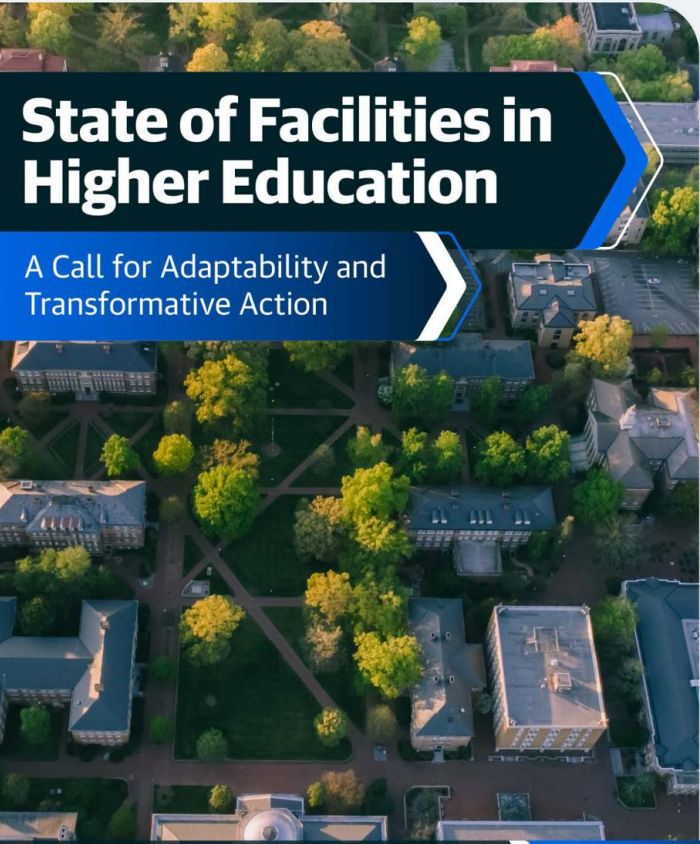
As UNC maintenance backlog hits record high, facility worker morale at an 'all time low'



Photo by [Derek Peng](#) / The Daily Tar Heel

Barriers bar the front entrance to Alumni Hall on Sunday, April 23, 2023. The building's broken step is one of many maintenance projects UNC has yet to complete.

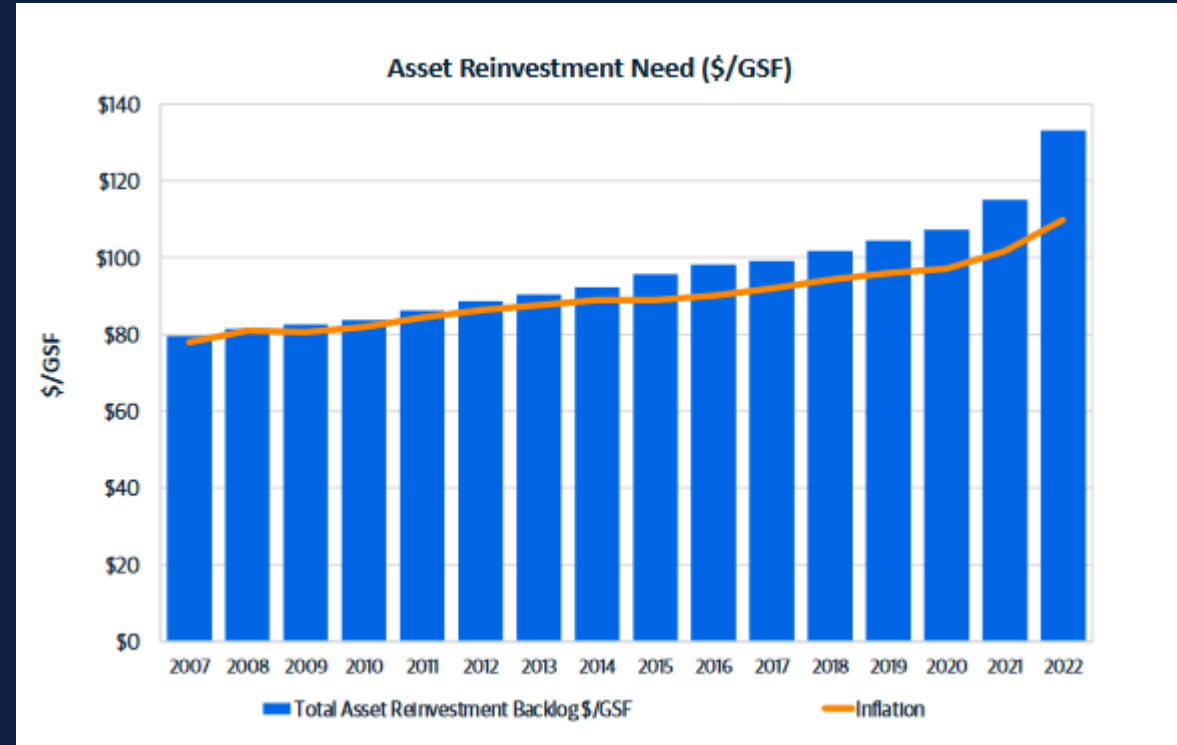
Deferred Maintenance



State of Facilities in Higher Education

A Call for Adaptability and Transformative Action

GORDIAN 10th edition

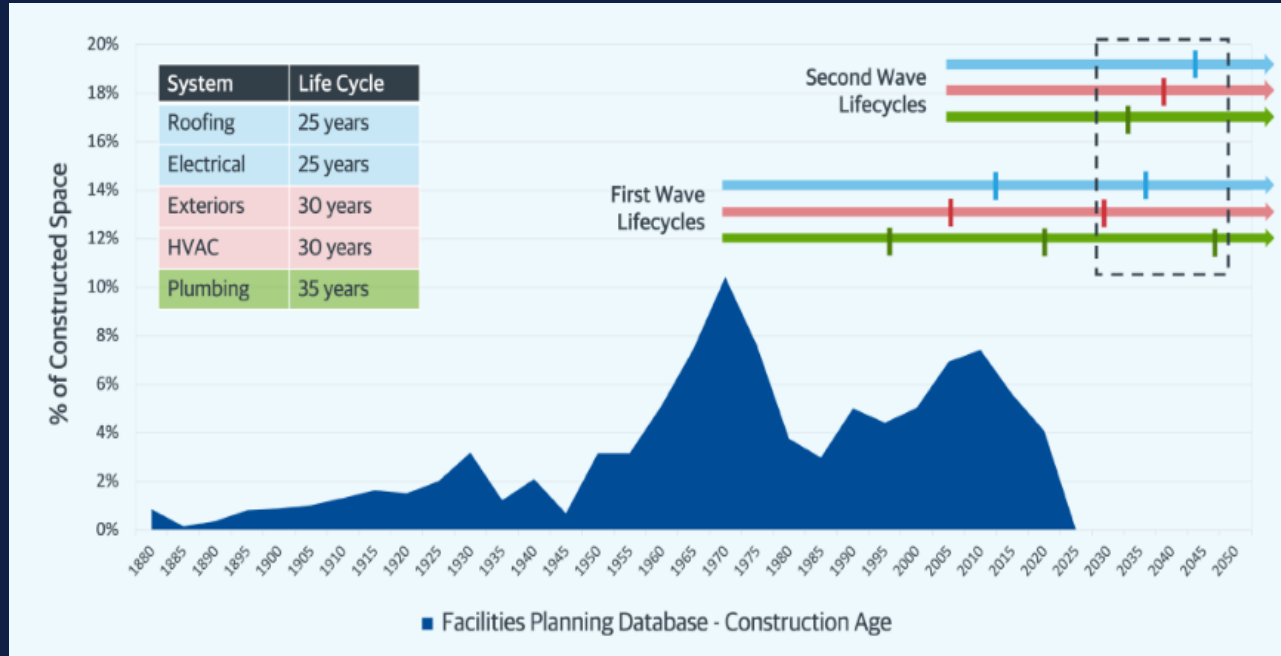


Since our last edition of the State of Facilities, renewal needs have exploded from **\$105/gsf** to **\$133/gsf**

APPA/Sightlines - 2023

Deferred Maintenance

	Total GSF	Pre-1900 GSF	1900-1929 GSF	1930-49 GSF	1950-69 GSF	1970-1989 GSF	1990-99 GSF	2000-Present GSF
UNCG	6,740,988	35,417	861,780	278,212	1,149,300	1,123,287	970,848	2,322,144
		0.5%	12.8%	4.1%	17.0%	16.7%	14.4%	34.4%



State of Facilities in Higher Ed Gordian - 2021

- 2020 estimated deferred maintenance backlog for state-supported buildings was at \$396M, and non-state-supported buildings at approximately \$90M, totaling over \$486M. Several of these numbers were based on the 2015/2018 FCAP report. Including campus utilities distribution and infrastructure, we had estimated our total backlog to be at or over **\$500M**.
- Although the national estimate, according to APPA/Gordian, is now at **\$133/GSF**, we are estimating our deferred maintenance backlog to be in the \$110/gsf or estimated at **\$750M**.

Construction Labor Pool and Cost Impacts

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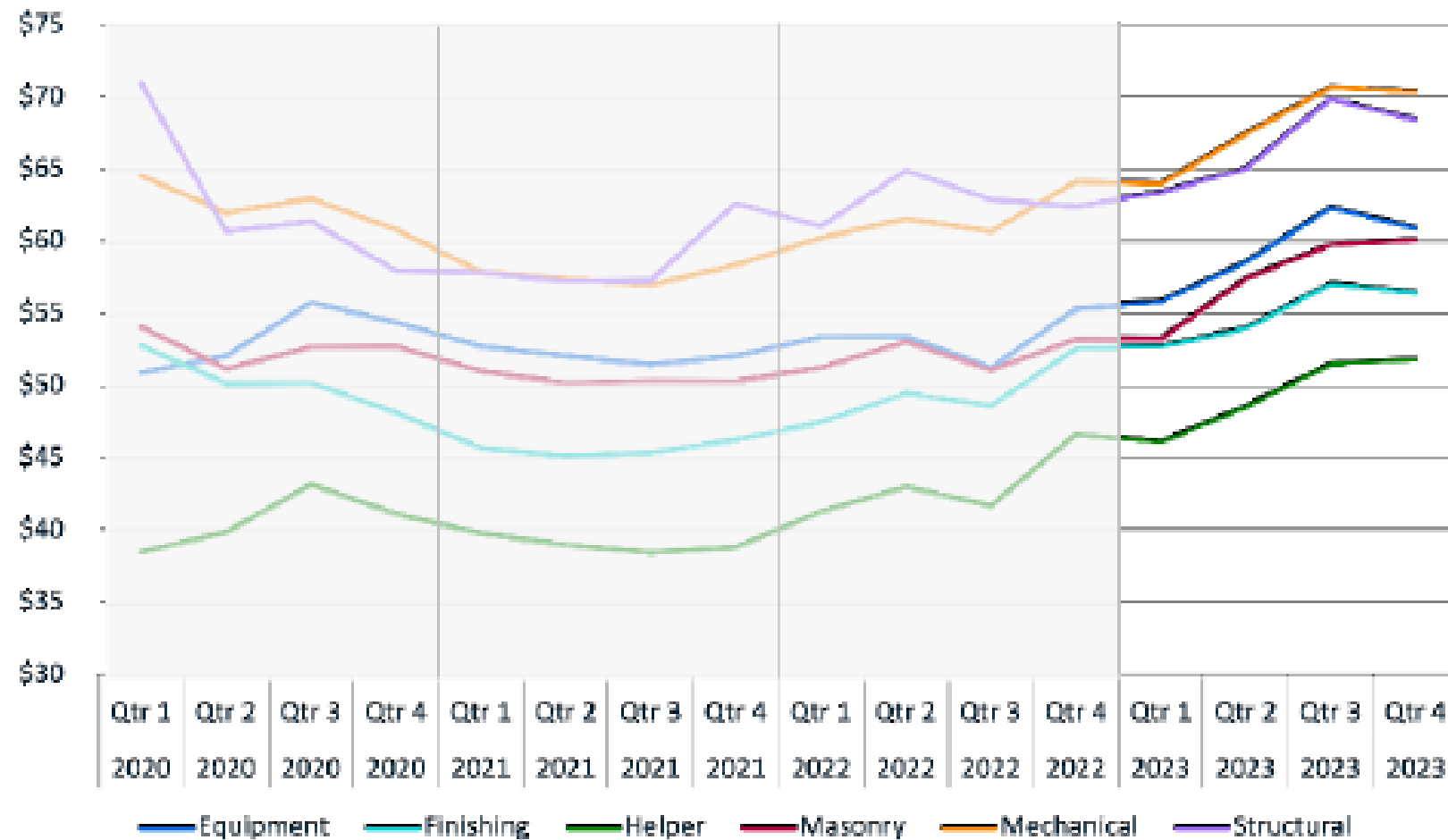
Winter 2023

The Great Adaptation: Navigating the New Construction Labor Pool

For those trying to manage construction costs in the U.S. market, relief is always just out of reach. After several years of sustained volatility in material cost and availability, inflation is cooling and markets are stabilizing. However, concerns loom in a new area – labor. Since the start of the COVID-19 pandemic in 2020, a series of factors have caused significant friction in the construction labor market. Alas, industry stakeholders have traded one crisis for another.



Average Total Hourly Labor Cost by Category



Source: Gordian's RSMeans Data

Chart 1

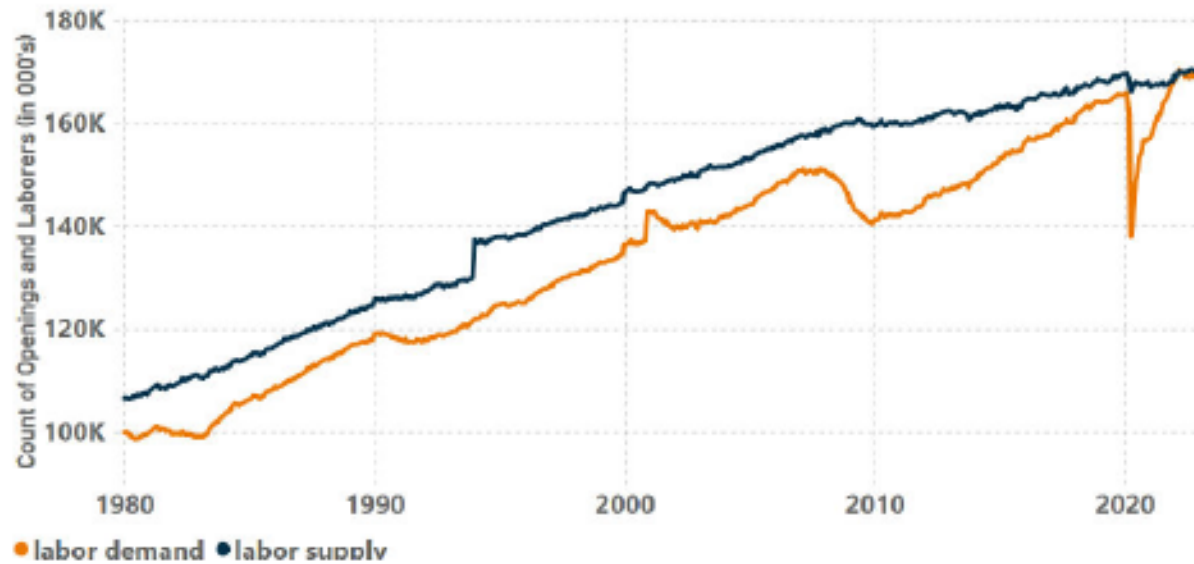
Mega-Projects



These mega-projects and major infrastructure investments are increasing labor costs and decreasing the skilled labor pool across the country. Maintenance and repair on existing assets have been hit particularly hard. A significant backlog of deferred maintenance accrued during the COVID-19 pandemic and subsequent supply chain crunches are now at risk of further delay due to labor shortages. Many strategic responses, such as material substitutions or maintenance modifications, are simply deferring costs into the future, which may not be a viable response unless structural changes occur in the labor market.

The Balance of Labor Supply and Demand Has Never Been Tighter

Rising demand coupled with the tepid growth of labor is pushing wages higher

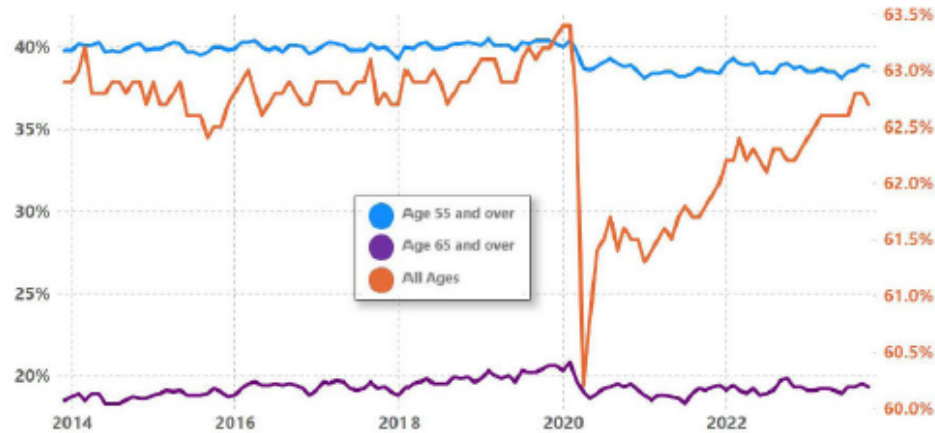


Source: Bureau of Labor Statistics (BLS)

The government's efforts to stimulate the economy through consumer spending resulted in the creation of an astounding 28 million new jobs in 18 months. At the aggregate level, these were enough new jobs to replace those lost during the pandemic. However, the plan was too blunt an instrument to address the ensuing skills mismatch. As a result of the economy's initial COVID shutdown in early 2020, over one million Baby Boomers, many with decades of work experience, permanently left the workforce.

U.S. Labor Force Participation Rate by Select Age Groupings

(% of population in labor force)



Source: Bureau of Labor Statistics (BLS)

In the three years since, the percentage of the over 55-years-old working population has not made a meaningful recovery from the pandemic. There is no expectation of this cohort returning to the construction labor force. The result is that, post-COVID, construction companies have been left with a structurally different pool of laborers without having the time to adapt their practices accordingly. It is this mismatch between jobs and workers that explains why businesses find themselves in the unenviable position of paying more per hour for labor while getting less output per labor hour.

Nor are additional labor sources on the way to solve the problem. A historically high proportion of those between the ages of 25 and 54 are already engaged in the workforce. Attempts to encourage more American-born people from this cohort to join the construction labor pool will produce underwhelming returns and/or come at a steep price. Similarly, businesses should expect little relief from immigrant labor. In 2022, 18% of the U.S. workforce was composed of foreign-born workers, a record high. That year's immigrant labor unemployment rate, 3.4%, was even lower than the nation's overall rate.



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Construction Spending by Region (x\$1m, 2012)

	1/1/2018	1/1/2019	1/1/2020	1/1/2021	1/1/2022	1/1/2023	1/1/2024	1/1/2025
North West	\$108,482.16	\$102,508.59	\$108,909.57	\$115,869.19	\$107,385.96	\$94,082.69	\$97,918.78	\$100,710.56
South West	\$223,632.89	\$211,989.74	\$227,291.92	\$232,647.56	\$215,790.62	\$203,007.02	\$215,451.41	\$222,289.15
North Central	\$177,828.29	\$179,421.10	\$186,995.28	\$176,434.73	\$162,232.02	\$161,909.47	\$169,342.63	\$166,575.49
South Central	\$184,081.88	\$196,114.60	\$211,257.71	\$204,692.43	\$194,192.17	\$195,540.71	\$201,626.59	\$202,677.59
North East	\$163,227.70	\$165,473.72	\$164,106.58	\$158,956.21	\$151,596.99	\$150,850.78	\$144,958.04	\$142,830.06
South East	\$243,508.81	\$253,589.74	\$268,427.86	\$270,615.83	\$271,320.38	\$284,403.31	\$274,826.56	\$268,041.97

◀ HISTORIC | FORECAST ▶

SOURCE: U.S. Bureau of Labor Statistics

Top Regional Projects Sorted by Construction Value

Project Name	Location	Value
Global Villages or Gwinnett Place Mall Redevelopment	Duluth, GA	\$10B
Burnham Place at Union Station	Washington, DC	\$8.5B
ATL Next - Hartsfield-Jackson Airport Expansion	Atlanta, GA	\$6B
Hyundai Electric Vehicle Manufacturing Plant	Ellabell, GA	\$5.5B
Baltimore Peninsula	Baltimore, MD	\$5.5B
Wolfspeed's Factory	Siler, NC	\$5B
Hyundai Electric Vehicle Battery Plant	Kingston, GA	\$5B
Project Tera Electric Vehicle Plant	Atlanta, GA	\$5B
VinFast Manufacturing Plant	Moncure, NC	\$4B
American Dream Miami	Miami Lakes, FL	\$4B

SOURCE: Build Central



Find your way here

Recent Bid Results

BID DATE	NAME	TOTAL PROJECT BUDGET	CONSTRUCTION COST ESTIMATE - BASE BID	BASE BID (LOW)	VARIANCE	% VARIANCE
2024-01-25	Cone Art Building Lighting & Controls Replacement - Phases 2 & 3	\$1,353,750	\$874,440	\$456,000	\$418,440	48%
2023-12-19	Taylor Theatre Infrastructure Renovations	\$10,504,664	\$7,581,585	\$11,209,600	-\$3,628,015	-48%
2023-12-14	Moore Strong Elevator Replacement	\$468,000	\$260,810	\$260,845	-\$35	0%
2023-12-07	Campus Chilled Water Infrastructure & Equipment Improvements	\$13,800,000	\$11,436,647	\$9,700,000	\$1,736,647	15%
2023-11-21	Sullivan Building Flat Roof Replacement	\$433,855	\$362,000	\$270,100	\$91,900	25%
2023-11-16	Sullivan Greenhouse Repairs	\$783,424	\$460,460	\$606,400	-\$145,940	-32%
2023-11-09	Mossman Building Roof Replacement	\$1,250,000	\$983,900	\$660,376	\$323,524	33%
2023-10-26	Armfield Preyer Exterior Renovation	\$613,385	\$352,552	\$617,000	-\$264,448	-75%
2023-10-19	Phillips Hawkins and Moore Strong Phased Resident Halls HVAC Replacement	\$10,685,509	\$4,889,020 (PH)	NO BIDS	RESCHED TO 4/2024	N/A



Thank you