

Strategies

Resilient campuses are shaped through thoughtful, adaptable planning and design decisions. The strategies that follow provide a practical toolkit for campuses to evolve and endure through times of challenge and opportunity.



Embed Natural Solutions
Use native and climate-adapted plant species to support ecological processes, strengthen biodiversity, improve climate resilience, and connect the campus community with the natural environment.



Plan for Adaptable Mobility
Support multi-modal transportation networks to keep campus accessible through changing conditions and use patterns.



Rightsize Assets
Align space portfolios with demand, prioritizing performance, adaptability, and long-term stewardship over single-occupant ownership.



Support Gathering and Expression
Create welcoming, visible public spaces that enable assembly, dialogue, and community use in both everyday and critical moments.



Reinvest and Adapt Existing Assets
Continuously improve and repurpose existing buildings and infrastructure, extending their use and reducing reliance on new construction.



Embed Student Support in Place
Integrate student services with daily campus life to improve access for students with diverse needs.



Reinforce Memory and Meaning
Integrate preservation, adaptation, art, and storytelling to strengthen institutional identity.



Incorporate System Redundancy
Provide backup systems and alternative infrastructure pathways to allow continuous operations during disruptions.



Enable Digital and Hybrid Community
Connect physical and digital environments to support learning, extend campus boundaries, and sustain community amidst disruptions.



Design for Cross-Pollination
Bring people, disciplines, and ideas together in shared spaces to support collaboration, innovation, and knowledge exchange.



Distribute Critical Functions
Spread key functions across campus, reducing reliance on any single building or infrastructure component.



Design for Slack
Plan for flexible, lightly programmed spaces to absorb change, support evolving needs, and enable incremental adaptation.



2026 COMPARING CAMPUSES

Resilience by Design

As we celebrate America's 250th birthday, we're reflecting on how internal priorities and outside forces shape campus planning. Some events, such as aging infrastructure or long-term enrollment trends, can be anticipated and planned for. Others, including extreme weather, public health crises, or geopolitical conflicts, arrive suddenly and with impacts beyond an institution's immediate control.

These pressures test institutions. Resilient campuses experiment, adapt, and recover from these pressures to continue serving their communities and fulfilling their missions.

The physical campus plays a central role in resilience. Space shapes how people gather, learn, and connect. It can support continuity during change or limit an institution's ability to respond. Decisions about what is dissolved, preserved, adapted, or created influence how effectively a campus can evolve.

Campuses that have proven resilient over time share commonalities. They prioritize reinvestment in existing buildings, extending their usefulness through targeted renovations and adaptations. They contain multi-functional spaces that flex with new initiatives and programs. They embed key functions—learning, support, and gathering—across campus facilities and neighborhoods. And they align physical environments with evolving institutional priorities and student needs, remaining attentive and responsive to the communities they serve.

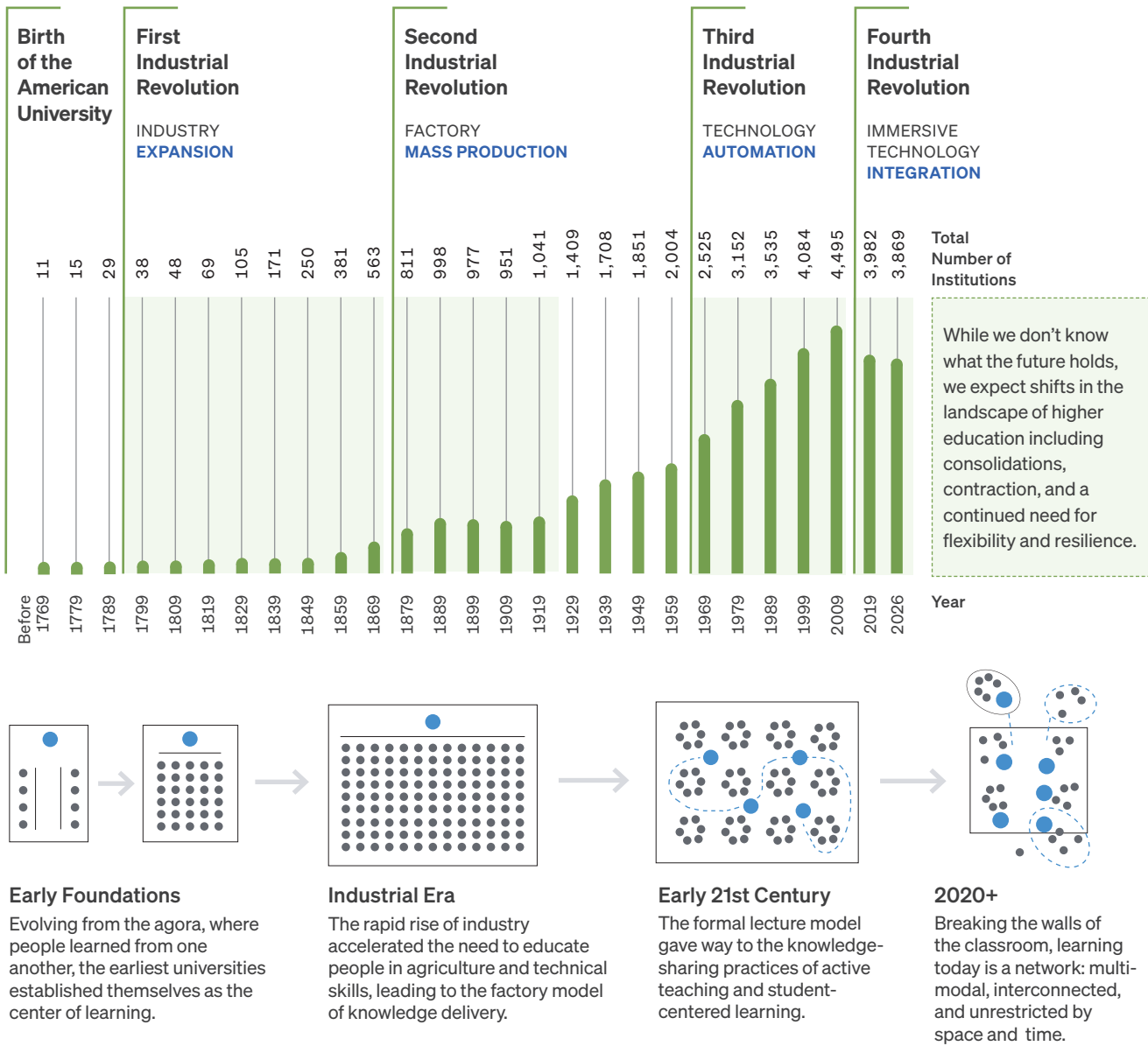
This poster explores resilience through a series of historic and contemporary lenses. Together, these case studies show how planning and design can help institutions respond to disruption and continue to thrive through uncertain times.

Our thanks to the colleges and universities whose stories of resilience are documented here. References available upon request. All research and data is intended for comparative use only. Recognizing that errors are inevitable, we apologize for any inaccuracies. **Concept**—Jim Wheeler. **Graphic Design**—Anji Kim, Margaret Zikovich. **Content**—Cassie Bair, Ray Byrd, Shannon Downing, David Duxbury, Wendy Gies, Amanda Hodgson, Jessica Leonard, Allison Wilson

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Evolution

America's institutions of higher education have evolved in response to industrial and technological change. Although the number of institutions grew dramatically over two centuries, demographic and financial pressures are driving consolidation across certain regions and institution types. The sector's enduring strength lies in its resilience and capacity to serve changing societal needs.



EXTERNAL CONFLICTS

Wars and armed conflicts have caused physical destruction and postwar rebuilding at colleges and universities, as well as significant changes in enrollment due to mass student enlistment and the GI Bill. External conflicts have also influenced the trajectory of institutional identity as wartime efforts have shifted focus within university research enterprises.

Sewanee: The University of the South
Sewanee, Tennessee

Founded in 1862, Sewanee laid its cornerstone in 1867 only to have planning and construction halted by the American Civil War. The university rebuilt slowly after the war, opening in 1868 with three wood-frame buildings. Through incremental growth over subsequent decades, Sewanee consolidated its focus on the liberal arts and theology, emerging as one of the South's leading Episcopal universities.

Image: Bird's Eye View of Sewanee, ca 1910
Source: <https://www.sewanee.edu/about/sewanee-projects/landingscapearchiv/projects/locating-slavery-legacies/>

Texas A&M University
College Station, Texas

Beginning at its founding in 1876, Texas A&M required all male students to join the Corps of Cadets. Through World War II, the Corps produced more commissioned officers than West Point and Annapolis combined. The university's drill fields, Military Walk, and Corps dorms continue to anchor the Aggie identity and traditions for the new voluntary co-ed Corps.

Image: The Texas A&M Band and Corps of Cadets marching on campus, 1909
Source: Texas Chronicles History, Mystery and Adventure, Facebook

California Institute of Technology
Pasadena, California

In the 1930s, Caltech graduate students began experimenting with rocket motors, laying the groundwork for what would become the Jet Propulsion Laboratory (JPL). Buoyed by World War II military funding and the Space Race, JPL accelerated Caltech's already strong research identity. Laboratories, engineering facilities, and computational infrastructure expanded, cementing Caltech's global reputation in aerospace, physics, and planetary science.

Image: Caltech alumni and JPL employees at the 22nd Annual Alumni Seminar, 1959
Credit: NASA/JPL-Caltech

PUBLIC HEALTH DISRUPTIONS

Public health events have repeatedly reshaped higher education, often strengthening universities' roles as research and community-serving institutions. Across contexts, resilience has meant not just surviving crises, but institutionalizing health expertise, integrating research with service, and adapting campus operations to protect and support institutional communities.

Harvard University
Cambridge, Massachusetts

In 1897, Harvard appointed Marshall Bailey its first medical adviser, despite lacking dedicated student health facilities. His five-year campaign culminated in the opening of the purpose-built Stillman Infirmary in 1902. One of the first in American higher education, it marked a growing institutional responsibility for student well-being. The infirmary's dedicated infectious disease pavilion proved its value as public health crises emerged in the decades that followed.

Image: Stillman Hall, Hospital for Harvard, Cambridge, MA, 1899, Original Plan. Montague & Kingsbury
Source: <https://www.stillmanhall.org/products/stillman-hall-hospital-for-harvard-cambridge-ma-1899-original-plan-montague-kingsbury>

Tulane University
New Orleans, Louisiana

Tulane University traces its origins to the Medical College of Louisiana, founded in 1834 to train physicians confronting outbreaks of yellow fever and cholera. The institution became the public University of Louisiana in 1847 before being reorganized as a private university in 1884. In 1912, it established the nation's first School of Hygiene and Tropical Medicine, reflecting its enduring public health mission.

Image: Lithograph of the Medical College of Louisiana, circa 1850
Source: <https://medicine.tulane.edu/about-us>

Johns Hopkins University
Baltimore, Maryland

Established in 1916, the Johns Hopkins School of Hygiene and Public Health, now the Bloomberg School, opened its doors at the height of the influenza pandemic of 1918. Founding faculty were already on the front lines. Wade Hampton Frost led the federal influenza task force before joining Hopkins to establish its epidemiology department. Each successive public health crisis has deepened the school's expertise and global reputation.

Image: Class in bacteriology, School of Hygiene and Public Health, Johns Hopkins University, Baltimore, Maryland, circa 1916-1925
Source: <https://source.rockarch.org/story/early-20th-century-reforms-of-medical-education-worldwide/>

PEDAGOGICAL EVOLUTION

How we teach and train students has changed over time to meet evolving academic and student needs. From fully in-person residential college experiences to commuter and fully remote education, higher education provides opportunities for lifelong learners to cultivate their knowledge and skillsets.

University of Virginia
Charlottesville, Virginia

UVA's foundation as a community where students and faculty lived and learned together established a new teaching model in built form. This prototype influenced the residential college model and campus planning across the country, popularizing the idea that education happens both inside and outside the classroom. Though largely unchanged in appearance, the Academical Village has been continuously adapted to meet contemporary needs.

Image: University of Virginia, 1855 (Bohn)
Source: Wikimedia Commons

Michigan State University
East Lansing, Michigan

Michigan State is considered the prototype for land-grant institutions established under the Morrill Act of 1862. Founded seven years before the Act, MSU pioneered a model that expanded the campus to include experimental farms, engineering workshops, and state-wide extension and research stations. This represented a fundamental expansion of higher education beyond classical lecture halls to embrace experiential learning, scientific research, and workforce development for the industrial classes.

Image: MAC Campus Vista, MSU in late 19th Century
Source: <https://campusarch.msu.edu/?p=1907>

Joliet Junior College
Joliet, Illinois

Recognized as the first public community college in the United States, Joliet Junior College (JJC) began in 1901 as a postgraduate program within a local high school. When JJC moved to its own campus in 1969, technical labs, workforce training facilities, health sciences buildings, and flexible classrooms supported applied learning for commuter students, demonstrating how campus design can reflect a commitment to accessibility and open community use.

Image: Original building of Joliet Junior High School. Joliet Junior College operated in this building until 1967
Source: <https://photos.jjc.edu/old-historical-photos-of-americas-first-public-community-college>

ENVIRONMENTAL PRESSURES

By creating localized damage or disruption, earthquakes, tornadoes, floods, and wildfires have inspired universities to build and rebuild hardened buildings, improved drainage or fire-resistant landscapes, and robust utilities. Over time, environmental risk has become embedded into campus planning and research, turning geographic vulnerability into a long-term institutional strength through the development of specialized facilities such as monitoring systems, shelters, and/or research centers.

Stanford University
Stanford, California

The 1906 San Francisco Earthquake destroyed or damaged many facilities on campus, including the library, gymnasium, Memorial Arch, and Memorial Church. While most of these structures were never rebuilt in their original form, Memorial Church and subsequent new buildings on campus were developed using reinforced materials. Long-term seismic retrofit programs have worked to stabilize and protect other campus facilities.

Image: T.H.D. Series Postcard, 1906 San Francisco Earthquake, Stanford University
Source: <https://www.hmcu.com.au/t906-t-h-d-series-postcard-1906-san-francisco-earthquake-standford-university/>

Union University
Jackson, Tennessee

In February 2008, an EF4 tornado struck campus and destroyed roughly 70% of student residences. Within hours, the local community opened housing for displaced students; within approximately two weeks, classes resumed; and by the Fall 2008 semester, the campus had resumed full operations. Rebuilt student residences focused on storm-resilient design, incorporating safe rooms to shelter occupants during future emergencies.

Image: Dorm Reconstruction, June 7, 2008
Source: <https://www.usu.edu/newsroom/2008/06/07>
Credit: Wayne Holmes

Rice University
Houston, Texas

Hurricane Harvey made landfall near Corpus Christi in August 2017, stalling over the Houston region and causing catastrophic flooding that exposed the vulnerability of low-lying, storm-prone cities. In response, Rice University expanded its research and planning efforts around stormwater management, flood modeling, and risk assessment to improve resilience to future storm events across the Houston region.

Image: Students stand in a flooded parking lot on the campus after Hurricane Harvey, August 2017.
Source: <https://www.cornnews.com/harvey-postpones-first-week-of-college-on-houston-coast>

FINANCIAL DRIVERS

Higher education has responded over time to changes in both funding sources and the scale of funding availability. Strategies such as redefining institutional mission, building relationships across public and private communities, altering campus form, and expanding access have historically helped institutions thrive despite financial adversity.

University of Chicago
Chicago, Illinois

Founded in 1890, the University of Chicago was still under construction and heavily dependent on donor support when the Panic of 1893 struck, even as it began admitting its first students. As the institution pursued its ambitious goal of becoming a leading research university, leadership prioritized graduate education and scholarly inquiry. By consistently nurturing donor relationships, the university sustained campus development throughout the nationwide economic downturn.

Image: View of campus from Ferris Wheel, 1933
Source: <https://www.uic.edu/about/graduate-schools-and-regulations/april-1992/>

Pennsylvania Western University
California, Clarion, and Edinboro, Pennsylvania

Facing enrollment declines and growing challenges in maintaining aging campus infrastructure, California University of Pennsylvania, Clarion University, and Edinboro University consolidated in 2022 to form Pennsylvania Western University, a single institution with multiple campuses under one administration. As part of the integration, the new institution reviewed classroom utilization, residence hall occupancy, and administrative space to shift toward more efficient space use.

Image: (top to bottom) PennWest California, PennWest Clarion, and PennWest Edinboro
Source: <http://pennwest.edu>

Mills College at Northeastern University
Oakland, California

After years of enrollment and financial pressure, Mills College merged with Northeastern University in 2022. The merger preserved the historic Oakland campus, integrating what was among the oldest women's colleges west of the Rockies into Northeastern's expanding global network of campuses. The case illustrates how financial disruption can lead to institutional reinvention, campus reuse, and continuity of place under a new operating model.

Image: Aerial view of campus
Source: <https://oakland.northeastern.edu/about-us-campus/>

SOCIAL & CULTURAL CHANGE

American higher education has grown from serving primarily affluent, white, male students to reflecting a broader and continually evolving understanding of what it is to serve the "public good." Teachers colleges, women's colleges, Historically Black Colleges and Universities (HBCUs), community colleges, and graduate education programs now exist to serve a broad range of student identities and learning objectives.

Alcorn State University
Lorman, Mississippi

Recognized as the oldest historically Black land-grant institution in the United States, Alcorn State University developed around an agricultural campus where working the land was central to its vocational mission. Enduring decades of segregation and underfunding, the institution nonetheless produced influential leaders of the 1960s Civil Rights Movement, building a lasting legacy for Black advancement in the rural South.

Image: Alcorn State University, 1961
Source: Mississippi Digital Library, The Alcornite 1961

University of California, Berkeley
Berkeley, California

Beginning in the 1960s, Berkeley's campus evolved spatially and symbolically through activism as sustained student protest reshaped campus from a controlled academic environment toward open political expression. Sproul Plaza and Free Speech Movement memorials anchor this legacy in place, while the contested redevelopment of People's Park demonstrates that the tension between institutional authority and community expression remains a persistent force on campus.

Image: First occupation of Sproul Plaza, September 1964
Source: <https://sfm-a.org/>

Sweet Briar College
Sweet Briar, Virginia

Facing enrollment decline and financial challenges, Sweet Briar nearly closed in 2015. An alumnae campaign raised millions to keep the college open, demonstrating how institutional networks can sustain campuses through crisis. Sweet Briar restructured its academic programs around women's leadership, reset tuition, and recommitted to its mission as an intentionally small, focused institution that highly prioritizes faculty reinvention and renewal.

Image: The "Sweet Briar Forever" slogan, which was part of a major community effort to keep the college open, 2016
Source: <https://sfm-a.org/>