

STATE UNIVERSITY OF NEW YORK
2023 MASTER CAPITAL PLAN, AS REQUIRED BY EDUCATION LAW
For State-Operated, Statutory, and Hospital Facilities

OVERVIEW

Master Capital Plan Statute and Scope of Report

“On or before November fifteenth of each year, the trustees of the state university of New York shall approve and submit to the chairman of the assembly ways and means committee and the senate finance committee and to the director of the budget a master capital plan setting forth the projects proposed to be constructed, reconstructed, rehabilitated or otherwise substantially altered pursuant to appropriations enacted or to be enacted during the succeeding five years. Such plan shall specify the name, location, estimated total cost at the time the project is to be bid, the anticipated date or dates on which the design of such project is to commence, the proposed method of financing and the estimated economic life of each project. Such plan shall further specify whether proposed projects constitute new construction, substantial rehabilitation, moderate rehabilitation or minor rehabilitation and shall indicate how projects support improvements in environmental protection, energy and resource management, solar energy and conservation. Such criteria for each method of financing shall include, but not be limited to: (i) an analysis of private enterprise, federal and any other appropriate financing standards (ii) the consideration of the period of economic life of projects as related to the method of financing, and (iii) project cost ranges for the methods of financing. Such plan specification and categories of construction shall be defined by the trustees, in consultation with the state university construction fund. Such capital master plan report shall also include, for each project over one-million dollars, a description of the projects; expected construction start date; any changes to the previously reported start or expected completion dates; any changes to the expected cost of the projects; the total cash encumbered for the project for the year and the total to date for the project; the total cash expended for the project for the year and the total to date for the project. All projects that are reported under this subdivision shall be identified by campus, the name of the specific facility for which the allocation is provided and a description of what the project is that is being provided” (*Education Law, section 355, subdivision 13*)

As prescribed by Education Law, this report focuses only on the current and long-range objectives of the Educational and Hospital Facilities programmed for the 29 State-operated campuses, four statutory colleges at Cornell, Alfred Ceramics, the three teaching hospitals located in Brooklyn, Stony Brook, and Syracuse, and facilities at System Administration. With limited exceptions, the report includes only those capital projects with an estimated total cost of over one million dollars, for which funding has been provided either through appropriations that have been enacted, or are anticipated to be enacted, pursuant to the most recent New York State Five-Year Capital Program and Financing Plan.

Residence halls operate under a separate, dedicated, fee revenue program, while community college project planning and execution is primarily done by the sponsoring local government(s). Information on these facilities is not included in this report.

In accordance with the foregoing, the State University of New York (SUNY/University) hereby submits the 2023 update to its Master Capital Plan.

MASTER CAPITAL PLAN OBJECTIVES

The University's objectives for its Master Capital Plan are to protect, maintain, preserve, and modify its physical plant to comply with health and safety codes; to address environmental concerns; to support and achieve the State of New York and the University's goals, including energy conservation and carbon reduction goals; to keep pace with changes in telecommunications, information and educational technologies, and emerging research requirements; and to adapt to ongoing changes in academic pedagogies, programs and student life affected by evolving educational and emerging marketplace demands.

Maintaining core campus infrastructure and nearly 1,800 academic buildings is the University's highest priority, as reflected in the current Master Capital Plan project portfolio. A large portion of the Plan includes projects designed to preserve, protect, and prevent deterioration of existing facilities, such as:

- Building exterior and interior rehabilitations and renovations
- Site infrastructure and utility projects
- Projects to replace or repair building systems (mechanical, electrical, plumbing)
- Energy efficiency projects, including deep energy retrofits (building exteriors, roofs, windows, lighting, etc.)
- Smaller critical maintenance projects such as masonry repairs, roof replacements, small classroom renovations, etc.

In tandem with their age, the intended use of SUNY facilities is continually changing to suit the evolving pedagogies of higher education workforce demands, and to maximize suitability for the advancement of SUNY's mission. Classrooms and laboratories that were built decades ago no longer meet the needs of today's students or the needs of the New York State workforce. Students require and expect a campus to be both attractive and serviceable, with up-to-date technology and instructional facilities at least better than those offered in the K-12 educational setting. Upgrading and repurposing existing resources to meet these expectations is often a significant portion of a campus' capital plan. In a 2016 Cooperative Institutional Research Program survey¹ prospective college students ranked the college visit as *very important*, falling only slightly below the academic reputation, financial assistance/cost, and the likelihood of employment after graduation. This indicates the significance of the physical environment's influence on the student's college choice, including impressions made by classroom and laboratory spaces.

¹ *Higher Education Research Institute*

SUNY Facility Fast Facts

(Fall 2023)

1960-80 Evolution of SUNY campuses

40% of all State-owned Buildings are SUNY Facilities

1,771 Educational Buildings
63.3M GSF*

29 Hospital Buildings
5.3M GSF

495 Residence Halls
21.5M GSF

538 Community College Buildings
20.8M GSF (county-owned)

110.9M Total** GSF

50 Average Building Age in Years

72% of SUNY Inventory is more than 40 Years Old

*GSF: Gross Square Feet

**Includes community colleges and residence halls



CHALLENGES AND OPPORTUNITIES WITHIN SUNY'S CAPITAL PROGRAM

Size of Physical Plant/Age of Facilities/Conditions

SUNY's educational and hospital facilities have evolved greatly from their beginnings. These facilities became assets of SUNY, and by extension, the State, in two major periods. The first was at the creation of the SUNY system, spanning 1948 to 1953, where a total of 24 campuses that were stand-alone institutions began life as SUNY system-related entities. The second, between the 1960's and the 1980's, saw either the transition or establishment of eight State-operated or statutory campuses that are now part of the SUNY system. Today, SUNY campuses account for 40 percent of all State-owned building assets (excluding infrastructure and land), with the Educational Facilities alone accounting for nearly 1,800 educational buildings covering over 63 million gross square feet (GSF). The maintenance of these campus facilities continues to grow in cost as a direct result of their inherent age. Over the past 60 years, the passage of time and the impact of heavy use have left a mark on SUNY's physical condition. Approximately 72 percent of all educational and hospital facilities are more than 40 years old, with some dating back to the creation of SUNY itself and a system-wide average age of 50 years. Though SUNY has invested significant resources over the years to address the renewal needs of these aging facilities, SUNY's State-operated and statutory colleges have an immediate renewal need of \$8.6 billion, which is an increase of \$0.8 million since last year alone.

Predictable Funding – Navigating Varying Levels of State Support

An essential element in the successful management of the renewal and replacement of these capital assets is the ability to plan for the long term. This ability is enabled by consistent and predictable funding which allows campuses and hospitals to plan, design, and schedule projects many years in advance. Over the past 14 years, SUNY has experienced periods of consistent and predictable funding, as well as periods of unpredictable funding. In addition to the years of unpredictable funding, SUNY hospitals were provided funding in 2008, and were not provided funding again until 2016.

Despite these challenges, SUNY did benefit during those years with additional funding for strategic initiatives that included funding for new construction, as well as funding for NYSUNY 2020 projects that provided significant investments for large special projects at various campuses. The 2022-23 and 2023-24 Enacted Budget significantly increased capital funding. In the 2023-24 Enacted Budget, annual critical maintenance funding increased to \$650 million, and provided \$670 million in flexible funding for projects that include new construction.

Capital Funding Fast Facts

Unpredictable Years	2009-12	<i>Predictable</i> \$550M Critical Maintenance annually
	2013	\$0 Critical Maintenance
	2014	\$402M Critical Maintenance
	2015	\$219M Critical Maintenance
	2016	\$290M Critical Maintenance \$175M Hospital
	2017-21	<i>Predictable</i> \$550M Critical Maintenance annually \$100M Hospital in 2016 \$150M Hospital in 2020
	2022	\$550M Critical Maintenance \$650M Flexible Funding \$150M Hospital
	2023	\$650M Critical Maintenance \$670M Flexible Funding Includes \$200M for Research Facilities at Stony Brook University and University at Buffalo \$150M for Hospitals

Flexible Capital Funding for Building Enhancements and New Construction

The past two budget cycles have provided flexible appropriations for major rehabilitations and new construction including:

- \$200 million for research facilities at Stony Brook University and the University at Buffalo
- \$118 million for engineering buildings at the University at Buffalo and Stony Brook University
- \$44 million for semi-conductor and manufacturing facilities at SUNY Polytechnic Institute
- \$75 million for a computer science building at Farmingdale
- \$75 million for the renovation of the former Albany High School for Engineering and the construction of the Artificial Intelligence Center at the University of Albany

LONG RANGE PLANNING

Effective planning is an essential component of a robust capital program that invests limited resources where that investment will have the greatest impact on the University's mission, as well as preserve and maintain State assets and meet sustainability goals. Medium- and long-range planning require comprehensive, ongoing, disciplined, data-informed, and participative approaches. SUNY's primary efforts are based on three essential planning tools:

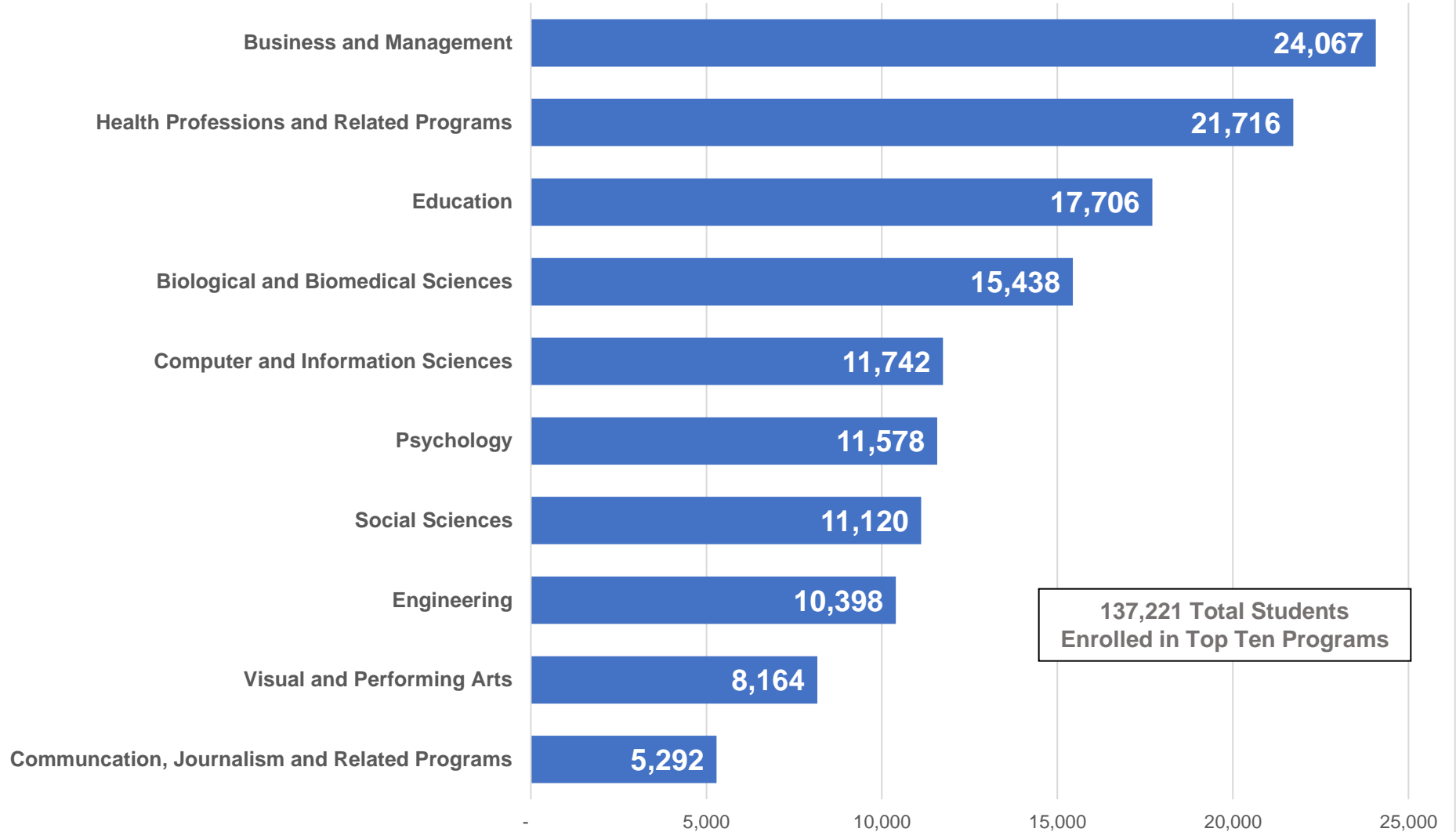
- I. Facilities Master Plans (FMPs)
- II. Life-Cycle Modeling (LCM)
- III. Clean Energy Master Plans (CEMPs)

Facilities Master Plans

SUNY and the Fund first addressed this need in 2011 by completing the first-ever system-wide Facilities Master Plan (FMP) initiative to consider mission, enrollments, and course planning in identifying physical space needs. The FMPs also evaluate existing space inventories, usage and condition to accommodate need, and provide recommendations for strategic facility improvements to meet current and future educational demands. As part of the University's continuous planning process, campuses periodically update their FMPs, largely in response to changes in campus leadership and strategic priorities, as well as programmatic changes driven by shifting student demands and enrollment. Recent enrollment challenges at some institutions, and projected demographic declines, necessitate evaluating campus facilities for space utilization and potential right-sizing efforts, including the possibility for selective demolitions of the least utilized and worst condition facilities.

Specific programs enrollments have experienced fluctuations, especially in the short term due to the impact of the pandemic on college enrollment, but the core traditional programs remain strong. However, enrollment in non-traditional programs (i.e., construction and production trades), although comparatively smaller overall, have seen a relative steady increase in recent years. This requires that campus buildings evolve to accommodate both the changing programmatic needs and necessary student support spaces. There has been a dramatic shift over the past ten years in demand for certain programs, from those that can be accommodated in traditional instruction spaces, to those that require more specialized labs and collaborative learning environments such as engineering, computer science and biological science programs. Nevertheless, capital plans also must continue to invest in spaces that support traditional programs, such as business, management, and education, that comprise some of the current largest programs in the SUNY system. Enrollment in programs such as these, as seen in the most recent enrollment figures, can be cyclical and dependent on market demand.

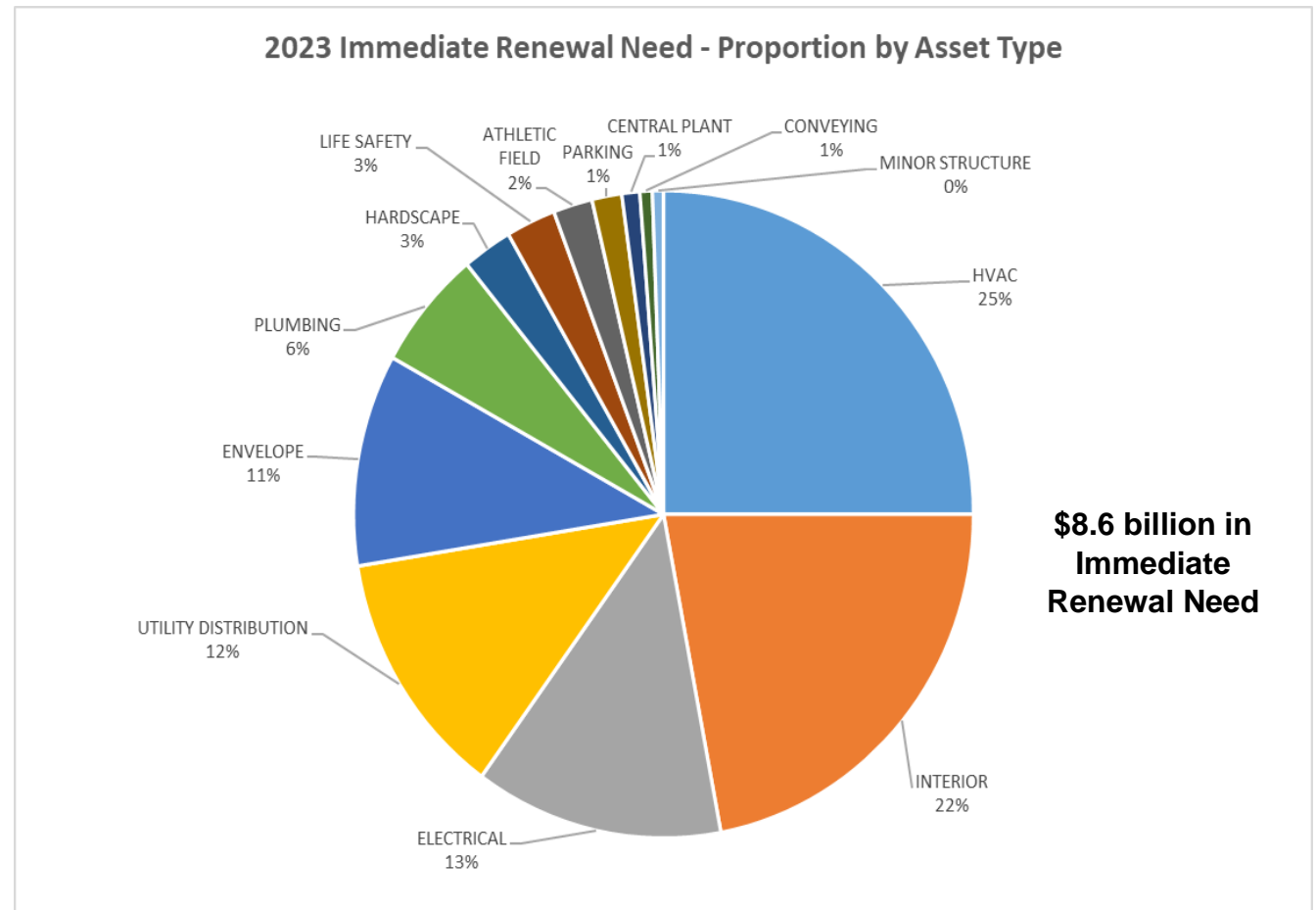
Top Ten SUNY Programs by Fall 2022 Enrollment



Life-Cycle Modeling

To complement the FMPs, and to ensure that the planning effort incorporates not only changing programmatic and academic needs, data on the condition of the University's buildings and infrastructure is utilized. In 2017, SUNY and the Fund implemented software that maintains data on asset conditions and allows for continual life cycle modeling. The software tracks the remaining useful life of approximately 44,000 asset components for each building and infrastructure system for all of SUNY's State-operated campuses. Each component has a replacement cost that is used to quantify the amount of investment needed to renew the component. This model enables SUNY to determine the annual levels of investment needed to keep these components in a state of good repair. Useful lives of components are updated in real-time as construction work is completed, allowing for intelligent data analysis to determine renewal information for each campus. Responsible planning practices have proven to help maintain the aging physical plant of SUNY in the past and will continue to do so with this more comprehensive life cycle modeling data.

SUNY and the Fund's capital planning process is now based on data-driven decision making that utilizes the FMPs, the new life cycle modeling software, an application integrating asset needs with planned projects, and programmatic enrollment trend data to plan future projects that balance key areas: advance the long-range capital plan, address academic needs, and renew aging infrastructure and buildings. This ensures that capital investment is targeted for those projects that can have the greatest impact on each campus, and throughout the SUNY system. The pie chart above shows the breakdown of this immediate need by major asset type.



ECONOMIC DEVELOPMENT

Jobs and the State Economy

The SUNY Educational Facilities and Hospital Capital Programs are administered by the Fund. The Fund coordinates capital planning and funding for all capital projects under these programs, while design and construction contracts for these projects can be managed by either the Fund or the campuses. Campuses typically manage smaller, quick-turnaround projects and the Fund manages larger, longer duration projects. As SUNY is a state-wide entity, these projects play an important role in New York's state and local economy.

SUNY's physical environment and continued capital investment to maintain this infrastructure fuels economic development in four important ways. First, SUNY plays a vital role in educating New York State's future workforce. Modern, up-to-date, facilities are essential to providing a quality education for students, the majority of whom are from New York and stay in New York after graduation. Second, capital investment to update facilities and modernize laboratories that support research promotes economic development by assisting with the recruitment of world class faculty and researchers who generate revenue through grants and patents. Third, capital investment in SUNY, particularly in urban environments, revitalizes communities and brings SUNY and the community together. Finally, capital investment has the direct benefit of creating local design and construction industry jobs throughout New York State.

SUNY's physical environment is essential to supporting the economic output produced by the University. A report produced by the Rockefeller Institute of Government estimated that SUNY's annual economic impact on New York State's economy is \$28.6 billion and generates a return on investment of \$8.17 for every \$1 invested.

The current economy continues to have a significant impact on project bidding, particularly the availability of construction workers, delays in materials due to the supply chain, costs for materials, and the threat of recession. However, construction on SUNY campuses has proven to be an effective economic driver during periods of past fiscal uncertainty and provides project opportunities when the private sector falters.

As New York State seeks to maintain its economy, SUNY is in a unique position to aid this effort as both an educational and economic force. As demonstrated in the sidebar, the investment made in SUNY's capital program (with current year wage rates) over the last 12 years has greatly benefited every region of the State just in the creation of construction and construction-related jobs. The data shows that direct capital investment results in high-paying jobs and is exclusive of any trickle-down economic impact.

Investment Fast Facts

Current Invested and Jobs Created over 12 Years
(and associated 2023 Wage Rates)

North Country

\$408M Invested
2,766 Jobs Created (\$58/hour)

Capital Region

\$763M Invested
5,171 Jobs Created (\$67/hour)

Mohawk Valley

\$482M Invested
3,268 Jobs Created (\$63/hour)

Western NY

\$1,649B Invested
11,170 Jobs Created (\$65/hour)

Finger Lakes

\$450M Invested
3,053 Jobs Created (\$59/hour)

Central New York

\$1.5B Invested
10,465 Jobs Created (\$59/hour)

Southern Tier

\$1.1B Invested
7,839 Jobs Created (\$59/hour)

Mid-Hudson

\$539M Invested
3,654 Jobs Created (\$85/hour)

NYC

\$762M Invested
3,876 Jobs Created (\$116/hour)

Long Island

\$2.5B Invested
17,374 Jobs Created (\$109/hour)

SUSTAINABILITY

Energy Savings and Environment

SUNY has long been a leader in promoting energy efficiency and sustainability, especially through capital program investment. For almost two decades, SUNY has been at the forefront in achieving various energy and carbon reduction goals. These initiatives have included requiring Leadership in Energy and Environmental Design (LEED) Silver ratings on all new buildings, additions, and major rehabilitation projects at State-operated campuses and statutory colleges, leading the way for the State to achieve the goals established by Executive Orders 88 and 166, as well as the Climate Leadership and Community Protection Act (CLCPA), and most recently, Executive Order 22 mandating reductions in site energy, carbon in construction materials and construction waste.

In response, the Fund-issued design directives guide campuses and design consultants on the major building and infrastructure components that should be incorporated into the design of SUNY facilities, where feasible. The directives intend to achieve a net-zero carbon emissions standard for all new SUNY buildings, and a deep energy retrofit standard for major building renovations.

SUNY has played a significant role in achieving these energy and sustainability goals as demonstrated in the chart to the right and will continue to be a leader in this regard. SUNY is ensuring that State-operated campuses and statutory colleges have a roadmap in place to help them achieve the ambitious goals established by the CLCPA. The Fund established a partnership with the New York State Energy and Research Development Authority (NYSERDA) to become the lead grantee under NYSEDA's FlexTech program to offset the costs for conducting comprehensive Clean Energy Master Plans (CEMPs) at each eligible campus. SUNY and the Fund will continue to be a major contributor towards meeting the targets outlined above.

Energy Fast Facts

- SUNY is close to achieving the NYS Energy Plan goal of a 40% reduction in greenhouse gases (GHG) by 2030. SUNY is at a current reduction of 36.5%.
- In accordance with E.O. 88, SUNY's energy use intensity (EUI) was successfully reduced by 20% from 2010 to 2020.
- SUNY continues to progress towards the Paris Accord goal of 20% GHG reduction by 2025 with a 18.3% reduction to date.
- SUNY's on-site renewable generation totaled over 20 million megawatt (MWh) hours last year!
 - Cornell Solar – 11.6k MWh
 - UB Solar – 5.1k MWh
 - Fredonia Solar – 1.0k MWh
 - Albany Solar – 1.0k MWh
 - Cortland Solar – 873 MWh
 - Cobleskill Solar – 120 MWh
 - ESF Solar – 94 MWh
 - Delhi Solar – 56 MWh
 - Delhi Wind – 1 MWh
 - Alfred State – 3 MWh

FINANCING THE CAPITAL PROGRAM

Appropriations for educational and hospital projects are paid using State funds in the first instance. The State is reimbursed for these expenditures periodically from bonds issued by the Dormitory Authority of the State of New York or the Empire State Development Corporation under the Personal Income Tax and Sales Tax Revenue Bonding Programs. The State pays the debt service on these bonds².

Only a very small amount (\$25 million) of State pay-as-you-go funding was made available to campuses during a multi-year period beginning in 2004, for smaller, less-bondable capital projects. Since then, no additional pay-as-you-go funding has been provided. In addition, in many cases, campuses provide grant funds or other campus-raised revenues to supplement and support priority capital projects.

Aside from the essential need to invest in public higher education, there are several reasons why bonding is the most appropriate method for financing capital investments in the University's physical plant and infrastructure. First and foremost, it provides a consistent source of ongoing funding to maintain the asset values of essential facilities, i.e., the availability of hard dollar appropriations sufficient to fund the capital projects which is not always available.

Second, is the extended useful life benefit received from the investment. For SUNY educational and hospital capital projects, the average extension of useful (or economic) life of a facility, or facility component, exceeds 28 years for all projects undertaken. This compares favorably to the weighted average term of the bonds sold to finance these projects, which usually ranges between 15-20 years.

Last, with the advent of the enhanced revenue coverage available under the Personal Income Tax (PIT) State Bonding Program and the Sales Tax State Bonding Program implemented in recent years – which now support the bonding needs of both SUNY and CUNY capital programs, among others – the overall cost of bonding has been reduced, while bond ratings have remained high. (Most recent ratings for SUNY Educational Facility and Hospital PIT bonds remain at “Aa1” from Moody's and “AA+” from Fitch.) The State's annual debt service cost on the bonds issued to fund the capital program is a small percentage of the amount of money made available through bonding.

² Note: Prior to the 2022-23 Enacted Budget, pursuant to annual transfer language provisions, each of the University's three teaching hospitals were required to reimburse the State from their operating revenues for the ongoing annual debt service costs of all bonds sold in support of hospital capital projects.

THE FUTURE OF THE SUNY CAPITAL PLAN

The facility needs of campuses constructed in years past do not often meet the requirements of today. The constant effort to renovate facilities to make them suitable to meet today's demands requires a mix of renovations, additions, and new construction. Historical SUNY Capital Plans made considerable investment and progress towards achieving this goal, but the continued demands on both State resources and SUNY require constant rethinking and reworking of universally accepted approaches.

SUNY has advocated for, and is the beneficiary of, several new opportunities that authorize the Fund to enter into design-build contracts that provide an additional contract mechanism in which to deliver capital projects in the future, multiple years of flexible appropriations that give campuses an opportunity to address capital initiatives that they may not have achieved in past fiscal years, and the ability to draw on other State agency resources to complete comprehensive Clean Energy Master Plans (CEMPs) that will help achieve the climate mitigation goals of the CLCPA.

As one of the larger components of the entire State's overall capital program, and as a major component of the State's physical assets, the continued good stewardship of SUNY's educational and hospital facilities is of paramount importance. Capital investment in SUNY has the immediate and direct effect of creating thousands of high-paying construction and construction-related jobs throughout New York State.

While economic uncertainty continues to have an impact on capital spending levels, it is important to remember that SUNY has also demonstrably transformed communities and helped revitalize urban areas. SUNY's world-class faculty and researchers contribute millions of dollars through research and commercializing innovation, facilitated by modern facilities. SUNY has educated millions of students within the walls of its facilities since its inception and the many have remained in New York to become part of its workforce. SUNY is a driving force in New York's economy and capital investment is a catalyst that will continue to prevail through any challenging times that may be ahead.

**State University of New York
Facility Profile as of Fall 2023
State-Owned Only**

Research University Centers	Acreage	Academic Buildings	Residential Buildings	Hospital Buildings	Total State Owned Gross Square Feet (GSF)
ALBANY	464	64	71	0	5,850,077
BINGHAMTON	777	77	45	0	7,116,838
STONY BROOK	1,452	127	73	10	12,921,577
UNIVERSITY AT BUFFALO	1,239	118	12	0	10,330,753
Sub Totals	3,932	386	201	10	36,219,245

Other Research/Doctoral	Acreage	Academic Buildings	Residential Buildings	Hospital Buildings	Total State Owned Gross Square Feet (GSF)
ALFRED CERAMICS	11	13	0	0	459,216
CORNELL UNIVERSITY - CONTRACT COLLEGES	3,338	289	0	0	4,932,522
DOWNSTATE	13	5	2	2	2,225,641
ESF	4,774	187	0	0	1,118,739
OPTOMETRY	0	1	0	0	298,000
SUNY POLY	765	14	7	0	989,350
UPSTATE	99	24	1	17	4,693,213
Sub Totals	9,000	533	10	19	14,716,681

Comprehensive Colleges	Acreage	Academic Buildings	Residential Buildings	Hospital Buildings	Total State Owned Gross Square Feet (GSF)
BROCKPORT	461	54	24	0	2,891,735
BUFFALO STATE	135	39	11	0	3,025,376
CORTLAND	611	85	31	0	2,649,011
EMPIRE ST	25	8	0	0	242,839
FREDONIA	252	34	21	0	2,315,016
GENESEO	221	37	18	0	2,326,058
NEW PALTZ	216	39	19	0	2,264,649
OLD WESTBURY	604	29	14	0	1,343,611
ONEONTA	1,515	48	18	0	2,415,650
OSWEGO	342	48	24	0	3,468,118
PLATTSBURGH	261	31	12	0	2,156,158
POTSDAM	274	40	15	0	2,356,242
PURCHASE	508	31	5	0	2,369,359
Sub Totals	5,426	523	212	0	29,823,822

Colleges of Technology	Acreage	Academic Buildings	Residential Buildings	Hospital Buildings	Total State Owned Gross Square Feet (GSF)
ALFRED STATE	1,246	49	35	0	1,495,916
CANTON	381	24	4	0	982,720
COBLESKILL	569	53	10	0	1,295,017
DELHI	481	36	6	0	1,043,101
FARMINGDALE	387	44	3	0	1,480,691
MARITIME	52	30	4	0	787,741
MORRISVILLE	1,230	84	10	0	1,624,311
Sub Totals	4,346	320	72	0	8,709,497

Other	Acreage	Academic Buildings	Residential Buildings	Hospital Buildings	Total State Owned Gross Square Feet (GSF)
SYSTEM ADMINISTRATION	7	9	0	0	660,052
Sub Totals	7	9	0	0	660,052

	Acreage	Academic Buildings	Residential Buildings	Hospital Buildings	Total State Owned Gross Square Feet (GSF)
Grand Total	22,711	1771	495	29	90,129,297