III. **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 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 more than 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, and to maximize suitability for the advancement of SUNY’s mission. Classrooms and laboratories 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 by their K-12 education. 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 survey 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 how much the influence the physical environment might have on the student’s college choice, including impressions made by classroom and laboratory spaces.

SUNY is committed to maintaining its standing as a functional and desirable destination for New York’s (and beyond) best and brightest. The Master Capital Plan aims to provide SUNY faculty, students, and staff with the highest functioning and best conditioned buildings and infrastructure possible in support of SUNY’s educational mission. To this end, the University is proud to share its planned capital investments in classrooms, laboratories, student support spaces, treatment centers, and infrastructure, which will allow SUNY to continue its role as an effective and accountable steward of essential resources of the State of New York. In order to build upon this progress, SUNY will continue to need sustained capital investment in order to address critical maintenance needs on all of its campuses.

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1 Higher Education Research Institute
Long-Range Planning

Effective long-term 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. Long-range planning requires a comprehensive, disciplined and focused approach. SUNY and the Fund first addressed this need in 2011 by completing the first-ever system-wide Facilities Master Plan (FMP) initiative.

The FMP initiative resulted in a 10-year plan projecting the capital investment needs for each of SUNY’s 34 State-operated and statutory campuses, as well as System Administration. Campus and Fund staff looked carefully at the current mission and strategic plans of individual campus programs, and assessed the ability of existing facilities to meet future expectations. The FMP considers mission, enrollments, and course planning in identifying physical space needs; evaluates the ability of existing space inventories, usage and condition to accommodate need; and provides 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.

SUNY’s total enrollment has grown by 2 percent over the last five years, from 219,759 students in 2013 to 224,187 students in 2018. However, the programs that students are enrolling in has changed considerably in the long term with a significant increase in students enrolling in STEM-related programs. Also of note, enrollment in trades (i.e., construction trades), although comparatively smaller overall, have seen a steady relative increase in the past five years. This requires that campus buildings evolve to accommodate both the changing programmatic needs and necessary student support spaces. As demonstrated in the following chart, there has been a dramatic shift over the past nine 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.
Percent Change in Headcount Enrollment, by Program of Study
Long Term vs Short Term Trends (2010-2018 vs 2014-2018)

Computer and Information Sciences and Support Services
- Percent Change in Headcount Fall 2010-2018: 96%
- Percent Change in Headcount Fall 2014-2018: 41%

Engineering
- Percent Change in Headcount Fall 2010-2018: 46%
- Percent Change in Headcount Fall 2014-2018: 9%

Biological and Biomedical Sciences
- Percent Change in Headcount Fall 2010-2018: 20%
- Percent Change in Headcount Fall 2014-2018: 7%

Health Professions and Related Clinical Sciences
- Percent Change in Headcount Fall 2010-2018: 3%
- Percent Change in Headcount Fall 2014-2018: 3%

Liberal Arts and Sciences, General Studies and Humanities
- Percent Change in Headcount Fall 2010-2018: -17%
- Percent Change in Headcount Fall 2014-2018: 13%

Education
- Percent Change in Headcount Fall 2010-2018: -23%
- Percent Change in Headcount Fall 2014-2018: 8%

English Language and Literature/Letters
- Percent Change in Headcount Fall 2010-2018: -41%
- Percent Change in Headcount Fall 2014-2018: -23%

History
- Percent Change in Headcount Fall 2010-2018: -44%
- Percent Change in Headcount Fall 2014-2018: -12%
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 building and infrastructure is also utilized. In 2017, SUNY and the Fund implemented new 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 helps SUNY 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 State University Construction Fund's (Fund) capital planning process is now based on data-driven decision making that utilizes the FMPs, the new life cycle modeling software, and programmatic enrollment trend data to plan future projects that balance key areas: advance the long-range 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.