

# University System *of* New Hampshire



## **Workforce 2025 Working for New Hampshire**

Capital Appropriation Request

**April 2016**

# University System of New Hampshire



April 25, 2016

The Honorable Margaret Wood Hassan  
State House  
Concord, NH 03301

Dear Governor Hassan:

Pursuant to RSA 9:3-a, the University System of New Hampshire (USNH) is pleased to submit its two year capital budget request for the next biennium, fiscal years 2018 through 2019, unanimously adopted by the Board of Trustees on April 15, 2016. This request is the first phase of a six year capital project plan. As we hope is evident from our submission, USNH looks forward to continuing its important partnership with the State and building upon the capital investments the State has made in public higher education since 2001.

In recognizing the critical need to strengthen our state's workforce in the areas of science, technology, engineering and math (STEM), the University System presents this request to increase STEM education capacity across all USNH residential campuses, with the first project at the University of New Hampshire in Durham. State workforce needs have been identified in collaboration with the State and the business community, and the message has been clear: New Hampshire's economic health depends on a stronger STEM workforce.

Our previous capital project partnerships proved to be very successful and have helped position USNH as the State's primary provider of STEM graduates. In fact, STEM graduates have increased to the point of reaching our capacity limits. The requested investment will remove that bottleneck and expand capacity. As with those previous workforce-focused projects, USNH will directly fund a significant portion and will also cover any cost overruns.

We are keenly aware that the State must weigh competing priorities, and we remain committed to working collaboratively to craft a solution that best meets our state's needs. The capital investment we are seeking will significantly enhance academic infrastructure and specifically USNH's STEM capacity building, which will benefit our state's students, families and businesses by promoting a new generation workforce to feed our state's long-term economy.

Sincerely,

Todd Leach, PhD  
Chancellor

## **CAPITAL APPROPRIATION REQUEST**

### **Fiscal Years 2018-2019 with Six Year Plan**

The University System respectfully requests \$30 million in state capital appropriation during the next biennium for Phase I of the Biological Sciences Initiative at UNH-Durham. The University System of New Hampshire has prepared a six-year capital budget plan in accordance with RSA 9:3-a. The plan includes projects at each of USNH’s residential campuses and focuses on supporting New Hampshire’s most pressing workforce and economic development needs. This state support over the course of the six year plan will be leveraged by USNH for a total of \$164 million in capital investment over the six-year period. Without state support, these projects cannot go forward.

<b>Fiscal Years 2018 – 2019</b>	<b>\$30 million</b>
Fiscal Years 2020 – 2021	\$30 million
Fiscal Years 2022 – 2023	\$35 million

The projects described in the six-year plan which is the basis for this request have consistently been identified as high need and high impact facilities. The University of New Hampshire’s Biological Sciences Initiative, the initial project, is described in detail on pages 17-20.

### **Executive Summary**

This six-year capital budget plan will provide the vital tools needed by the State’s four-year public universities and colleges to usher in a bright new era of high-tech job growth, business opportunities and research partnerships that are uniquely suited to meet the growing demands of New Hampshire’s innovation economy. USNH is requesting \$30 million in state support in FY18-19. This state investment matched with \$15 million in UNH funds will allow USNH to take the first step in making the six year plan a reality for the State of New Hampshire and its citizens.

Over the next three biennial budgets, fiscal years 2018 through 2023, the State’s total contribution of \$95 million will be leveraged by USNH into a \$164 million investment, dedicated to workforce development for New Hampshire’s citizens. Together, these requests will:

- Drive New Hampshire toward its statewide goal of doubling the number of STEM (science, technology, engineering and math) graduates between 2012 and 2025.
- Make USNH institutions even more attractive to in-state student applicants, especially those pursuing STEM-related majors in high-tech fields with great job opportunities.
- Provide cutting-edge facilities designed to improve student outcomes, build partnerships with private industries and entrepreneurs and create research to strengthen the State’s innovation economy.
- Build upon the State’s successful KEEP (Knowledge Economy Education Plan) partnership, which was first approved by the Legislature in 2001 and invested in six major science buildings across USNH.

## Six Year Capital Plan Project Highlights

### University of New Hampshire, Durham

The **Biological Sciences Initiative** includes the renovation and expansion of both Spaulding and Conant Halls. In addition to replacing aging teaching and laboratory research space, some of which has not been updated since 1960, this project will allow UNH to increase enrollment in high-demand STEM majors by 250 students per year.

<b>FY18-19 Phase I</b>	<b>State portion:</b> \$30 million	<b>USNH portion:</b> \$15 million
<b>Total cost:</b> \$77 million	<b>State portion:</b> \$46 million	<b>USNH portion:</b> \$31 million

## **Plymouth State University**

The **Health Sciences and Technology Hub of Innovation** will reinvent the campus and bring together its key academic and research clusters to focus on the State's health-related economy. This hub and additional open labs will centralize resources and provide new opportunities for businesses, faculty and students to collaborate on real world solutions, especially those that are important to the State's travel, tourism, technology and sustainable development sectors.

**Total cost:** \$54 million

**State portion:** \$30 million

**USNH portion:** \$24 million

## **Keene State College**

The **Media Arts and Technology Center** will integrate arts and humanities with applied and technology-enhanced learning, and is projected to add 100 students to these disciplines. The center will prepare students for lifetime career opportunities, with an emphasis on using information technology and innovation to engage citizens, support the State's knowledge economy and build strong communities.

**Total cost:** \$33 million

**State portion:** \$19 million

**USNH portion:** \$14 million

## **In depth: The case for NH workforce development**

The University System of New Hampshire (USNH) is a primary supplier of the State's highly educated citizens and workers. Its four institutions – the University of New Hampshire in Durham, Concord and Manchester, Plymouth State University, Keene State College and Granite State College – serve approximately 34,000 students and graduate 7,500 students at the associate, bachelor's, master's and doctoral degree levels. The institutions annually award more than half of the State's bachelor's degrees in STEM (science, technology, engineering, and math) programs. More than 90,000 USNH alumni live in New Hampshire, contributing to their communities and the economy. USNH has a material impact on the New Hampshire economy in employment, direct expenditures and workforce development.

This request is consistent with the need to grow capacity in STEM programs, identified as a high priority for the State of New Hampshire and its public higher education systems. Providing

crucial educational programs and services through teaching, research and public service is at the heart of the USNH mission and statutory mandate. USNH institutions continually evaluate workforce needs to ensure its institutions are offering the education and training essential to maintain New Hampshire's economic edge. Our colleges and universities work with New Hampshire businesses and industries in numerous ways, most visibly as members of program-dedicated advisory boards that assist with program development and support. Advisory board members contribute to the development and assessment of program educational objectives and outcomes, workforce alignment, program quality assurance and communication with local industries. These business partners often serve as representative employers of USNH graduates. In addition to consulting with business and industry leaders as part of academic program development and assessment, the institutions collect a variety of data to support program change, including program demand and market analysis studies, employer and student surveys and state employment projections.

Jobs in STEM continue to be a growing part of the State's economy. According to the New Hampshire Department of Economic and Labor Market Information Bureau, workers in occupations identified as STEM have the skills and knowledge most in demand, and STEM jobs are projected to be among those in the State with a stronger outlook than average. In May 2012, in partnership with state policymakers, USNH and the Community College System of New Hampshire (CCSNH) made a commitment to contribute to the statewide goal of doubling the number of graduates in STEM-related fields by 2025. In order to meet this important goal, there must be a collective commitment to invest in educating the citizenry by providing affordable access to competitive and desirable programs with modern facilities that will provide students with skills and experiences needed to succeed well beyond graduation.

USNH institutions have focused on increasing the number of STEM graduates by working to grow the STEM pipeline with programs designed to inspire primary and secondary students interested in STEM subjects and careers; by strengthening STEM postsecondary pathways through improved two-year to four-year program articulation; by providing STEM professional

development programs to expand K-12 teacher STEM skills and knowledge; and by retaining more STEM-enrolled students through to degree completion through mentoring and research opportunities. The number of USNH graduates with STEM degrees has increased by 24 percent over the past five years.

## **University System of New Hampshire capital program**

The quality and type of space that residential higher education institutions provide significantly impacts their ability to recruit, retain and educate students for modern employment needs and their ability to support excellence in teaching and research. Maintaining competitive facilities is essential to keeping New Hampshire students in New Hampshire and to attracting out-of-state students to New Hampshire, where they contribute to the economy and enhance the workforce. On April 21, 2016, Standard & Poor's Rating Services raised its long-term rating and underlying rating (SPUR) to 'AA-' from 'A+' on the NHHEFA rated debt issued for USNH. Citing USNH's status as the major provider of public higher education in New Hampshire, experienced fiscal management and USNH's historic resiliency through reductions in state support and enrollment pressure as factors contributing to the upgrade in rating, S&P also noted uncertain future capital support and significant competitions from regional and private colleges as constraining credit factors.

USNH recognizes that capital investment is needed to ensure facilities are up-to-date and appropriately maintained. The USNH projects within the plan accompanying the state capital appropriations request are focused solely on supporting the State's economy, and USNH aggressively seeks a variety of funding sources to optimize the State's support. This approach continues USNH's record of utilizing funds from bond financings, grants, operating funds and fundraising, as well as the important continued investment from the State of New Hampshire.

Comprehensive capital planning by the institutions and the USNH Board of Trustees involves identifying the investment needed for the changing and future workforce needs of the State

and the strategic use of resources to appropriately care for the investment already made in the real assets on our campuses. While USNH has constructed new facilities, it remains committed to maintaining, repairing and updating its existing facilities. Continual investments in the existing facilities has allowed the University System to limit the backlog of deferred maintenance to an amount consistent with peer institutions. The University System is actively engaged in ongoing efforts to ensure deferred and ongoing maintenance needs are met.

The investment in facilities over the past 15 years, with the KEEP program, has been critical to USNH's ability to emerge as a vibrant public university system. The investment made by the State from 2001 through 2013 through the KEEP program, using a multi-biennial approach, paid significant dividends to the University System and to the State. The investments made at the three residential campuses resulted in enrollment growth in STEM-related areas as well as growth in STEM-related gifts and grants. USNH seeks to replicate the success that was achieved through KEEP by identifying projects with a single focus and high value to the State. Utilizing a three biennium plan for 2018 through 2023 enables USNH to communicate its longer term strategy. Capital planning over a six-year time horizon can provide efficiencies in planning and construction across the University System. The initial request of \$30 million for the first phase of the UNH Biological Sciences initiative has been identified as the highest priority and will have an immediate impact.

Top universities across the nation have made significant investments in STEM teaching and research facilities to attract high-quality students and faculty, to prepare graduates for successful careers, to facilitate new partnerships with industry and to contribute to their state's economic development. These include some of our top competitors for students – the Universities of Vermont (UVM), Connecticut (UConn) and Massachusetts (UMass). UVM identified a STEM complex as its highest priority facility need in its capital plan and committed \$100 million to the project with a goal of doubling enrollments in STEM-related programs by 2020. The Commonwealth of Massachusetts has committed nearly \$200 million and authorized \$500 million in borrowing over 10 years for capital investments and infrastructure

improvements to support the life sciences programs across the UMass campuses, including a \$182 million integrated sciences complex at UMass Boston. The investment in one million square feet of state-of-the-art science and engineering facilities will provide UMass graduates with a competitive edge in STEM fields, life sciences and advanced manufacturing. UConn's Next Generation Connecticut initiative is one of the most ambitious state investments in economic development, designed to substantially expand educational opportunities, research and innovation in the STEM disciplines over the next decade. The STEM initiative includes a \$1.5 billion construction component to build new scientific laboratories, purchase advanced equipment, construct new classrooms and add housing. By 2024, Next Gen CT is projected to grow enrollment by 6,580 students, hire 259 new faculty and create more than 2,000 new permanent jobs in prominent fields related to research. All totaled, UConn calculates the entire economic impact – on top of the workforce development – will include 30,000 construction jobs, 2,190 permanent jobs, \$146 million in research awards, \$285 million in new business activity and 135 new patents and disclosures annually.

This is the competitive environment in which New Hampshire must consider its investments in public higher education for the sake of the State's future workforce and economic vitality.

## **Enrollment challenges and strategies**

In its 2016 Outlook for Higher Education report, Moody's Investors Service emphasizes that continued reinvestment in facilities is an essential factor for maintaining an institution's competitive position, in attracting both students and faculty. The impact of increased competition is evident in the fact that 5 percent fewer four-year college-going New Hampshire high school graduates stay in their home state for a baccalaureate education compared to a decade ago. At the same time, emerging workforce needs will increasingly require higher levels of education. The New Hampshire Coalition of Business and Education, the Governor and the House of Representatives have endorsed the "65 x 25" goal. This goal establishes a target that 65 percent of New Hampshire working adults will hold some type of post-secondary credential

by 2025. This initiative was supported by business and education leaders concerned by a confluence of demographic and economic factors including the declining number of high school graduates, the outmigration of educated young people and the increasing demand by business for a well-trained, well-educated workforce including students trained and graduated in STEM fields. Meeting this goal will result in higher wages for workers and greater tax revenues for federal, state and local governments; will reduce the need for government aid programs; and will create more productive workers who boost employer profits and support higher rates of economic growth. According to the Economic Policy Institute, high wage states are directly correlated with a well-educated workforce. Achieving 65 x 25 will require investment in public higher education, including infrastructure to support expansion of capacity in STEM programs.

Over the last several years, the USNH institutions have developed a variety of plans to mitigate the impact of the declining pool of high school graduates, including efforts to enhance overall college participation rates. In addition to expanded recruitment and marketing efforts to improve yield (the number of accepted students who ultimately enroll), plans include developing new academic and degree programs based on market demand, expanding on-line courses and offerings during summer and January terms, focusing on strategies to improve retention of existing students, and increasing the number of incoming transfer students. All institutions have ramped up efforts to recruit students graduating from local community colleges through expanded articulation agreements and colocation opportunities with CCSNH, dedicated admissions officers and strategic financial aid modeling. These strategies are intended to provide students with a clear pathway to a four-year degree, and in so doing, grow the transfer student enrollment at USNH institutions. The new dual admission program provides a seamless transfer from CCSNH to any of the USNH institutions and ensures that CCSNH courses will transfer and be applicable to USNH degrees, which saves the student money and time to degree completion. Since The New Hampshire Dual Admission Program was launched, more than 800 community college students from around the State have enrolled or registered interest in the dual admission program.

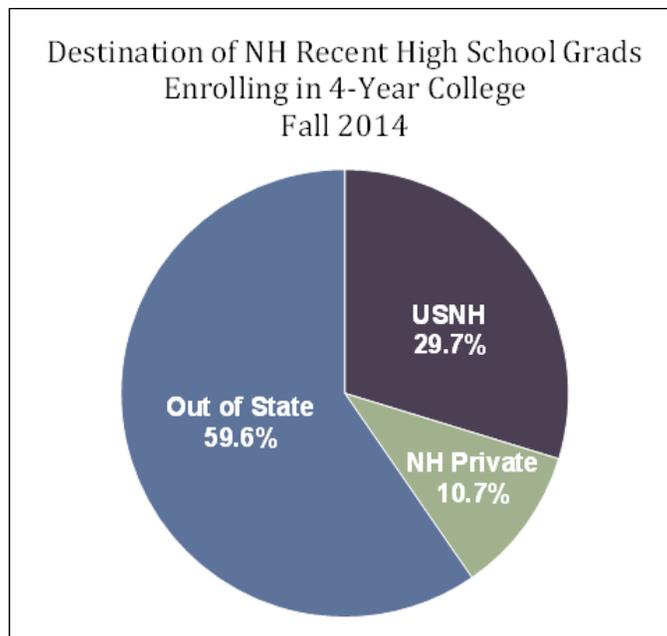
## **New Hampshire workforce and economic development needs**

There is little dispute that education or training beyond high school has become the minimum threshold for individual economic advancement. The Georgetown Center on Education and the Workforce conducted an analysis of the future workforce needs of the country, as well as those of each state, and projected that by the year 2020, 65 percent of the jobs in the United States will require some type of postsecondary training or education. The statistic is startling and commands a different way of thinking about workforce and education, considering that, for most of the 20th century, a high school diploma was sufficient preparation for the majority of jobs.

In New Hampshire, the demand for educated workers is projected to be as high as 68 percent. According to 2014 American Community Survey estimates, 47 percent of New Hampshire working age adults hold a degree or academic certificate, with an additional 4 to 6 percent estimated to hold an industry certificate or credential signifying advanced skill set acquisition. Increasing the education attainment level of the State's citizenry is a growing challenge given the State's current and future demographic profile. An aging population, decreased immigration of highly educated workers (and their families) that fueled the New Hampshire economy for decades, a shrinking pool of high school graduates in New Hampshire and New England overall, and increased competition among higher education institutions make it difficult to simply maintain, never mind grow, USNH's share of the diminishing supply of high school graduates.

College is now a buyer's market, and prospective students are increasingly seeking premium financial aid packages, campus amenities and state-of-the-art facilities. New England states in particular are among the nation's highest "exporter" states of four-year college-going high school graduates leaving the state to attend college elsewhere. New Hampshire continues its longstanding rank among the top exporter states in the U.S., most recently taking the number

one spot, with nearly 60 percent of its recent high school graduates who enrolled in a four-year college leaving New Hampshire to pursue a bachelor's education.



New Hampshire occupational projections by Georgetown through 2020 and by the Bureau of Labor Statistics (BLS) through 2022 both indicate that a bachelor's degree or higher will be required for the majority of jobs (about two-thirds or more across the board) in management and finance, education, healthcare professional and technical and STEM occupations. According to BLS projections, by 2022 more than three-quarters of all STEM jobs in New Hampshire will require workers educated at the baccalaureate level or higher.

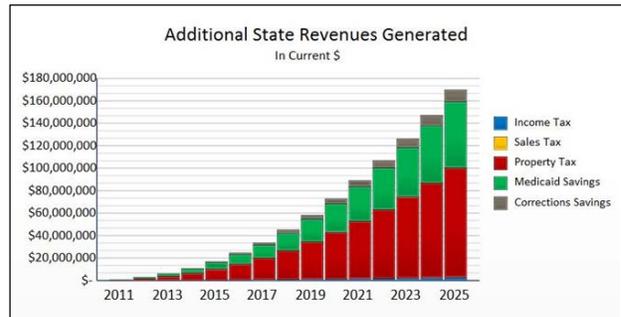
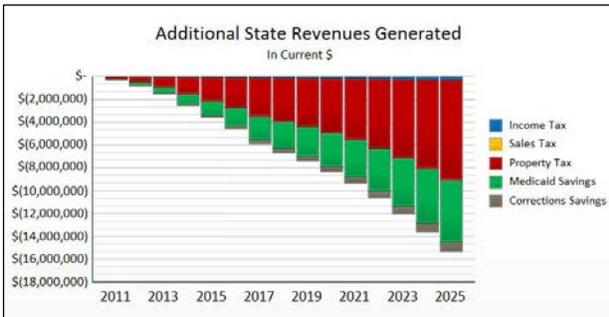
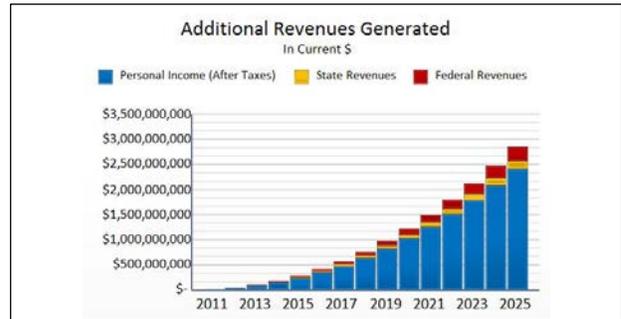
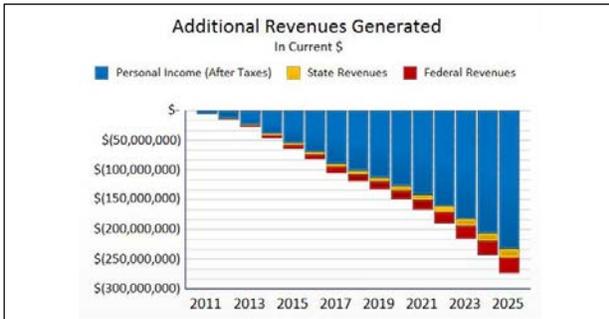
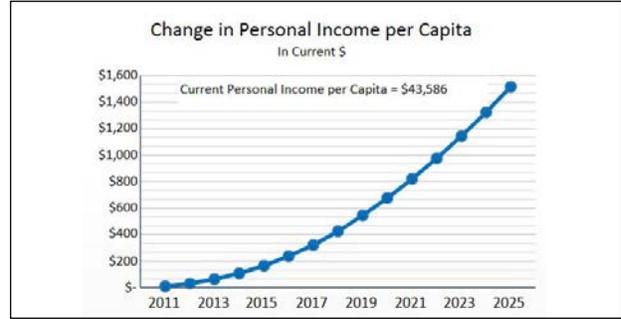
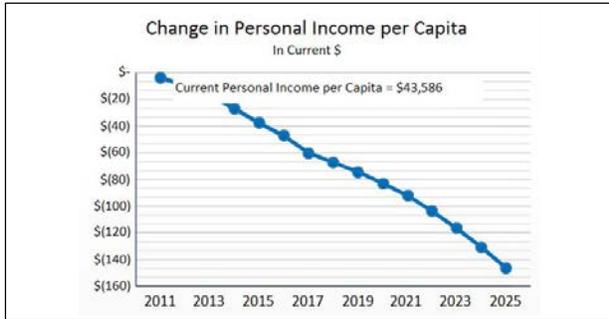
USNH institutions are committed to growing the number of STEM-educated workers in New Hampshire, but building a strong foundation for economic success and shared prosperity requires an investment of resources and a bold strategic vision involving all stakeholders, including business and industry, K-12 and postsecondary education and, importantly, state government. Investing in strategies to expand access to high-quality education for the State's citizenry will not only expand economic opportunity for those individuals, it will do more to strengthen the overall state economy than anything else a state government can do.

The National Center for Higher Education Management Systems (NCHEMS), in partnership with the Center for Law and Social Policy, created an online interactive model that identifies the gap in credential/degree attainment projected through 2025 when held at current levels and assists states in developing strategies and tracking progress towards reaching its educational attainment goal. Furthermore, the model uses state-specific data to translate education attainment scenarios into quantifiable monetary return on investment. The results for New Hampshire, as displayed on the following page, support the strong relationships between education, income, and public economic strength.

## New Hampshire College Attainment and Return-on-Investment

Impact of maintaining 2010 level of education attainment at 46%

Simulated impact of growing education attainment level to 65% by 2025



From the College Attainment and Return-on-Investment Model developed by the National Center for Higher Education Management Systems, in partnership with the Center for Law and Social Policy. Model baseline relies on 2008-2010 data from the U.S. Department of Education, U.S. Census Bureau, U.S. Department of Justice, and the National Association of State Budget Officers. Simulation to achieve 65 percent degree attainment reflects increases in high school graduation rate, postsecondary enrollment, particularly adults, and degree productivity across all higher education sectors. The results in 2025 assume linear progress toward the attainment goal.

## **Cutting-edge educational facilities are key to NH's future success**

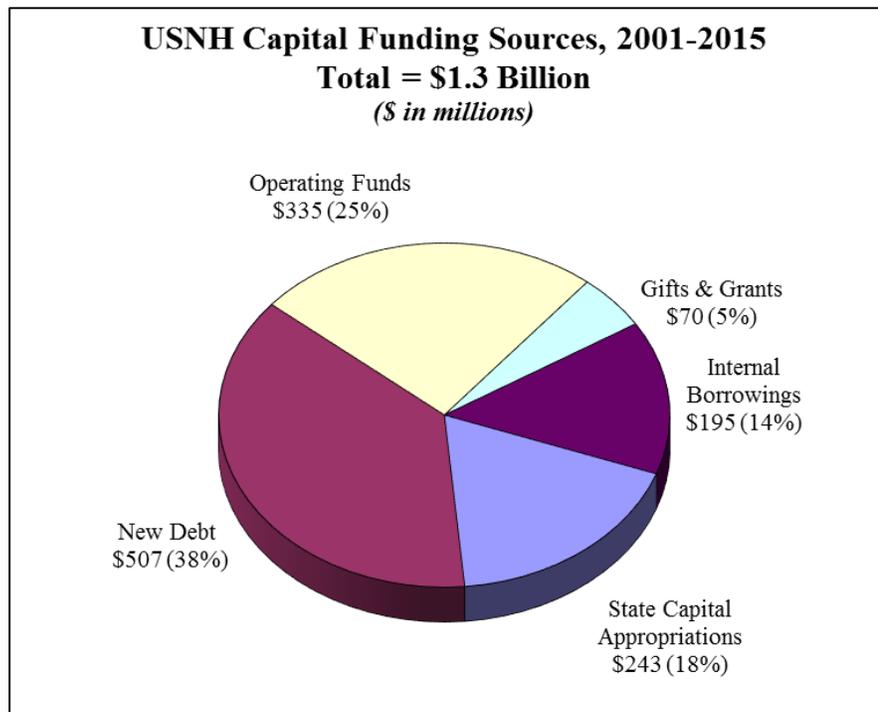
Labs, classrooms and study spaces are needed to stay current to support the teaching techniques that foster the collaborative skills business and industry now expect from our graduates. STEM labs and their infrastructure have complex building systems that must be kept up to date to provide the essential functionality and safety that is required for hands-on learning. The most cost-effective way to do this is through full building renovations. The condition and quality of a physical plant influences decisions made by prospective students. Qualified students have many choices today and in a very competitive market it is essential that USNH institutions have up-to-date, well maintained and highly effective facilities in order to retain or increase their share of the market. The State's investment in such priority projects over the years has allowed institutions to expand programmatic offerings and course capacity.

Completion of the projects identified in the plan that accompanies this request will address science and technology facility needs and will enhance USNH's capacity to increase enrollments, attract new faculty in strategic science programs and expand research and commercialization opportunities.

The State has historically played an important role in investing in the academic facilities necessary to further USNH's mission and to support high-quality, accessible education. Through its partnership with the State in KEEP I and KEEP II, USNH was able to complete multiple projects, including, but not limited to, transformational renovations and expansions to a critical cohort of science buildings at each campus and renovation of libraries at PSU and KSC. A GSC center in Conway was also established and is co-utilized by CCSNH. These investments have resulted in improvements in the quality of programs, increased applications, enrollment, grant awards and research opportunities, and have enhanced the capability to recruit students, faculty and staff. The investment in STEM and other academic facilities across USNH is putting hundreds of additional highly educated graduates, including many scientists and engineers, into

the workforce annually and is providing a substantially stronger technological base for New Hampshire's economic growth.

In addition to the projects funded by the State, the University System continues to make capital investments through many sources. As displayed in the chart below, from fiscal year 2001 to 2015 (including the 12 years of KEEP), more than \$1.3 billion was invested in USNH – with 82 percent coming from resources other than state capital appropriations. The USNH model is an innovative and highly efficient approach to public higher education unlike any other in the country. New Hampshire should take pride in the return-on-investment its public four-year system provides. The State's 18 percent share of capital investment over this period made a significant positive impact in the quality and competitiveness of all four institutions, and continued investment remains critical to our healthy public system moving forward.



The State's willingness to partner with USNH in the plant development needs of its public higher education institutions is long-standing and essential to the continuing vibrancy of USNH and, accordingly, to the New Hampshire economy as well. The projects described below were identified as top priorities by all campuses and the Board of Trustees at its strategic retreat in

September 2015, and in April 2016 Trustees chose the UNH Biological Sciences Initiative for the initial request of \$30 million in the FY18-19 biennium. Completion of these projects will position USNH institutions to remain competitive in today's markets and to continue to deliver returns that benefit the State of New Hampshire.

## **Project Summaries Six Year Plan FY2018 - 2023**

### **University of New Hampshire: Biological Sciences Initiative**

This request builds upon the successful partnership and investment the State made, through KEEP, in six major science buildings across the University System. The net impact of the projects at UNH can be clearly seen in the enrollment growth at the College of Engineering and Physical Sciences (CEPS). Since 2002, CEPS enrollment has grown from 1,018 to 2,093 in 2015, a 106 percent increase. The State's investment has played a critical role in enabling UNH to graduate more engineers for New Hampshire's economy.

KEEP I and II allowed for major improvements to UNH's physical sciences and engineering facilities. Now the life science and neuroscience facilities at the university have become the highest capital priority.

This project addresses several urgent science and technology needs that will provide the capacity to increase student enrollments and attract new faculty in strategic science programs. When completed, the renovation and expansion of Spaulding Hall and Conant Hall will help to meet New Hampshire's need for more highly skilled STEM graduates by allowing us to increase enrollment by 250 students per year in key STEM majors. The student demand for classes which require laboratory space far exceeds the supply of such space. This project will address current enrollment bottlenecks due to inadequate teaching and experiential labs, and it will create a setting that explicitly promotes interdisciplinary work. Approximately 850 students who are currently restricted from taking classes with a laboratory component will be able to enroll in those classes. The expanded space will enable the College of Life Sciences and Agriculture

(COLSA) to increase the number of faculty to better meet the high demand for biology classes. Additionally, it will provide for major building system replacements with a focus on essential renovations to and replacement of laboratory and teaching spaces that no longer meet modern teaching and research needs. A significant portion of the targeted science facilities have not been updated since 1960.

### **Overview:**

- \$77 million Total Project Cost that requires a sequenced 5-year design and construction schedule. At \$440/square-foot average for the new construction and renovation, the cost is consistent with science facility construction at other higher education campuses.
- Phase I – Total Project Cost of \$45 million (\$30 million from State and \$15 million UNH) will have an immediate impact on capacity and quality of laboratory experience
- Spaulding Hall: 75,000 sf renovation of existing 1960 building; 43,000 sf new addition.
- Addresses teaching lab needs of several rapidly growing and new academic programs, including biomedical science, molecular and cellular biology, bioengineering, neuroscience and behavior, agricultural and foods sciences, and the environmental sciences. It will provide experiential labs for genomics and bioinformatics, biomedical, cellular and marine biology, brain behavior and cognition, agricultural technologies, and bio-technologies.
- Increase enrollment by 250 additional students in key STEM majors – An increase of 2500 students over ten years.
- 9 renovated and 1 new instructional lab designed for team-based projects that will foster collaborative work skills – 24 seats each.
- Renovated and new labs will support several majors across the university, increasing student instruction capacity in those labs by 850 students.
- Lab and office space for 10 new faculty and lab space for 10 existing faculty positions which do not currently have labs.
- Replaces aging Kendall Hall (1970) science space by providing 9 faculty labs and offices shifted from Kendall.

- Replaces aging Conant Hall neuro-science behavioral labs for 5 existing faculty.
- Registrar-controlled classrooms – 270-seat lecture hall; 80-seat lecture hall; 45-seat classroom. (Connects current classrooms to the new, reliable, and efficient mechanical/electrical system.)
- Renovates space for Cooperative Extension diagnostic services – soil, plant, and lakes monitoring that serves the entire State of New Hampshire.

*Phase 1 is \$45 million project cost with \$30 million state and \$15 million USNH dollars*

*3-year project delivers the following:*

- 25,200sf renovation (about one third of the existing building); 28,700 sf new addition (plus 14,300 of new shell space for a future phase fit out).
- 6 renovated and 1 new instructional lab – 24 seats each.
- Lab and office space for 10 new faculty which will support the additional 250 STEM majors each year, and new lab space for 10 existing faculty positions which currently need, and do not have laboratory space. Combined, the project will provide an additional 24,000 student hours per year in state of the art experiential labs.
- It will provide improved lab support services and space, and will consolidate the animal facilities that are currently split between Conant Hall and Rudman Hall, allowing the antiquated neuroscience labs to be moved out of Conant Hall

*Phase 2 is \$32 million project cost – 2-year project delivery:*

- Renovate balance of existing space in Spaulding Hall, providing the full array of contemporary labs and support spaces needed.
- Fit out of remaining shell space in Phase 1.
- Conant Hall: One of the original four buildings on the Durham campus dating back to 1893 and has received no renovation in the past 30 years.
- The project will transform space to meet the specific non-laboratory STEM space needs, as well as updating the classrooms in this building that will serve the growing enrollment of STEM programs.

*Estimated Construction Period: Fiscal years 2018 to 2022*

*Total Budget: \$77 million*

***State Capital Appropriation Request for FY18-19: \$30 million***

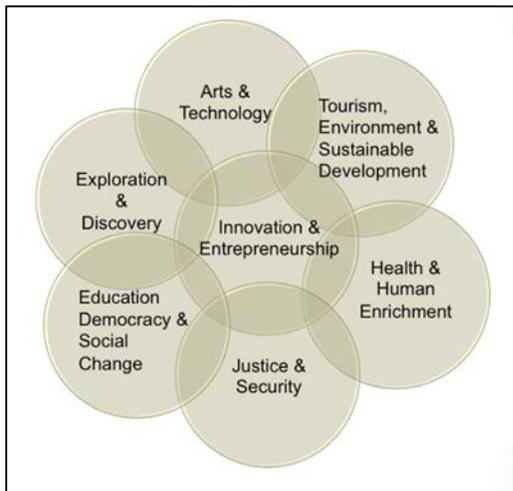
*Future Biennial Capital Appropriation Request: \$16 million*

## **Plymouth State University: Health Sciences and Technology Hub of Innovation**

The new vision of strategic academic clusters at Plymouth State University brings together innovation, enhanced rigor, and engaged academic programs to support New Hampshire’s workforce needs and economic development goals. These pioneering interdisciplinary clusters address 21st century needs by providing collaboration across disciplines, enabling students to

gain essential skills and experience to enter the workforce as tomorrow’s global leaders.

Central to the strategic academic clusters concept is the open lab: technology-rich, student-centered learning spaces in which faculty, students and businesses collaborate on projects, develop innovation strategies, and implement real-world solutions. To complete this vision, the open labs for the Health Sciences and Technology academic programs will be housed in the Health Sciences and Technology Hub of Innovation – one of the central



locations for the Clusters/Open Lab execution of projects and education. Student demand for these STEM programs is a strong driver for this request, as well as inadequate lab space and the need for classrooms that match with today’s instructional needs. The PSU enrollment funnel shows that interest in the University in these programs rose significantly from 2011 to 2016. As a result, enrollments in these programs increased 81 percent in the last year—from 213

students in fall 2014 to 386 students in fall 2015. While this Hub will be the home for STEM majors, the Technology and Innovation Hub will service all PSU undergraduates and some graduate students serving approximately 4,900 students annually.

The Health Sciences and Technology Hub of Innovation will leverage the new vision of the University in support of the State's goals for workforce and economic development through relevant and practical-based education and experiences. It will allow for expansion and commitment of programs that are market driven and connected to job opportunities, not only in Human Performance, Allied and Health Science professions but also in the following PSU Strategic Cluster areas: Arts and Technology; Tourism, Environment and Sustainable Development; Justice and Security; Exploration and Discovery; and Education, Democracy and Social Change. Opportunities for businesses, faculty and students to collaborate on real-world problems, with a focus on innovation, technology and a multi-disciplinary approach will be provided and it will realign the foundation of a liberal arts education into practice in meaningful and applicable ways that best prepare graduates with 21st-century skills.

The centrally located "HUB" in the North Country, in tandem with the Enterprise Center at Plymouth, will expand and support innovation and entrepreneurship within the region, enhancing economic vitality and long-term stability.

**Overview:**

- Total project cost of \$54 million to construct a new Health Sciences and Technology Hub of Innovation and renovation of four new Open Labs. Future state capital requests will total \$30 million.
- The Health Sciences and Technology Hub of Innovation will be approximately 106,000 gross square feet to support programs in allied health and technology, physical therapy, and computer science. The facility will accommodate faculty offices, new instructional space, and spaces dedicated to supporting the new model of education that requires Open Labs as mini-incubators to facilitate collaboration among businesses, students,

faculty, and community. Two Open Labs will be developed with special focus on health sciences and advanced design and technology. Projected cost per square foot will be \$412 for a new facility totaling about \$44 million.

- Four new Open Labs on campus are also targeted for renovation to support the new Strategic Cluster model in Hyde Hall (1974), Draper and Maynard Building (1909), Memorial Hall (1890), and Highland Hall (1976). Several of these existing buildings and spaces have not had significant renovations. Space will be repurposed and adapted to the new Open Lab concept. Total square footage for the new Open Labs will be 42,000 gross square feet. This investment will also reduce the level of deferred maintenance in those targeted facilities.
- Total Project Cost – \$54 million: Construction and Planning – \$52 million; Furniture, Furnishings, and Equipment – \$2 million.

*Estimated Construction Period: Fiscal years 2018 to 2022*

*Total Budget: \$54 million*

*Total State Capital Appropriation Request: \$30 million*

***State Capital Appropriation Request for FY18-19: \$0***

## **Keene State College: Media Arts and Technology Center**

Building on the successful renovation of a former dining hall in 2005 to create the Media Arts Center this portion of the plan transforms the existing space and adds capacity to a cluster of disciplines that currently represent approximately 10 percent of the College's undergraduate enrollment. The renovation in 2005 brought about a 50 percent increase in students graduating in these disciplines and meeting critical workforce needs. In 10 short years the technology requirements in these disciplines has evolved dramatically and the current facility is crowded, stale and cannot provide the kind of learning space needed to educate students in what are high tech fields adequately.

The 2015-2020 strategic plan focuses intently and intentionally on the engagement of our students in real world problems blending classroom learning with hands on experience. The Media Arts and Technology disciplines are exemplars in this effort. The fields of journalism, communication, marketing, graphic design, film and art have been transformed by technology, real time interface, social media and global reach necessitating that our educational programs are nimble and responsive and that our facilities are modern and rich in the state of art technology required to prepare our graduates to thrive in fields that will continue to be marked by innovation and even greater reliance on technology. Importantly, the workforce need demands tech savvy employees with the capacity to embrace and adapt in fields marked by innovation and technology. Keene State supplies more graduates in these areas than any other college in New Hampshire.

This project provides significantly improved capacity in instructional areas that are projected to continue growing by New Hampshire Employment Security's Economic and Labor Market Information (ELMI) Bureau. For 2012 to 2022 the ELMI shows 8.4 percent growth in industries represented by the Media Arts Center, including information industries (3.9 percent). The information industries group includes graphic design (9.4 percent), broadcasting (4 percent), and other information services (8 percent). ELMI data also project 11.2 percent growth in arts, entertainment and recreation industries. In addition to preparing students for these careers, the STEM-to-STEAM movement emphasizes the critical role of the arts and creativity in science and technology.

**Overview:**

- \$33 million total project cost including complete renovation of existing space and attached new construction. Future state capital requests will total \$19 million
- Accommodates increasing statewide employment growth in demand by adding 100 students each year.
- Provides critical high tech state-of-the-art labs, technologically advanced design studios, digital TV/Film production facilities, and specialized collaborative learning spaces.

- Incorporates a high level of experiential and applied learning that reflects the input of industry leaders in New Hampshire.
- Addresses critical teaching needs by opening general education offerings in these disciplines by an additional 50 percent providing the opportunity for most KSC students to experience creative and collaborative learning.
- Adds well prepared employees to the New Hampshire economy. Currently 40 percent of graduates in these disciplines stay and work in New Hampshire.
- Reduces unmet space needs campus wide of 74,000 assignable square feet for classrooms and laboratories by 30 percent (23,000 assignable square feet).
- Creates a production suite comprised of a broadcast production studio, a sound studio, a news room, and a control room – all shared by the film studies and journalism programs. These will replace the current antiquated facilities with state-of-the-art studios and control rooms. Additional media arts spaces will include post-production labs for film, editing bays and digital production labs for the journalism and graphic design programs.
- Provides collaborative work space that will allow our students to improve their capacity for working in teams, an essential skill for high tech employment.
- Revitalizes an aging and tired building that among other things needs significant roof repair.

*Estimated Construction Period: Fiscal years 2018 to 2022*

*Total Budget: \$33 million*

*Total State Capital Appropriation Request: \$19 million*

***State Capital Appropriation Request for FY18-19: \$0***

### **Granite State College**

In addition to projects at KSC and PSU, Granite State College intends to expand their presence on the Nashua Community College campus with construction of a wing to house specific program offerings that focus on the State's workforce high need areas.

## **Conclusion**

The University System is pleased to submit a capital budget request for \$ 30 million in fiscal years 2018 and 2019 that is built upon the success and efficiencies gained through prior appropriations. Together, the State and USNH have leveraged public support to enhance the economic future and vitality for New Hampshire citizens.

We are motivated to continue that joint effort with this initial project proposal and in , and to begin dialogue about other critically important projects across USNH in the following biennia. The USNH Board of Trustees is submitting a capital request that represents the current thinking of how best to remain responsive to the needs of students and the citizens of New Hampshire. USNH is committed to working with state officials to develop a plan for drawing down the capital appropriation in a prudent and conservative manner over the two-year period so as to mesh with state debt service and cash flow requirements.