UMass Lowell’s local economic impact soars to $854 million

University’s work supports more than 7,000 jobs in the region

UMass Lowell’s economic impact on the region has reached an all-time high of $854 million a year and supports more than 7,000 jobs in Massachusetts and New Hampshire, according to a recently released report.

Since 2010, UMass Lowell’s annual regional economic impact has increased from $490 million to $854 million, according to the UMass Donahue Institute.

That positive impact includes supporting 7,097 jobs in Massachusetts and southern New Hampshire through UMass Lowell’s direct employment of 1,976 people and another 5,121 workers who are in off-campus roles related to university activity, such as construction, transportation, retail and professional services.

“The report quantifies how UMass Lowell has thoroughly embraced this idea of entrepreneurship and how committed we are to the economic success of the region,” says Chancellor Jacquie Moloney.

UMass Lowell’s research activity by faculty and students is one of the major drivers of the university’s economic impact. Since 2007, UMass Lowell has grown annual research expenditures through a mix of grants, private funding and university investment from $36 million to $65 million. The economic impact of that research, often conducted with industry partners including major employers like Raytheon, was $104 million last year and supported 529 jobs.

An offshoot of UMass Lowell’s research activities, the Massachusetts Medical Device Development Center (M2D2) delivers more than $75 million in economic impact on its own. A joint effort of the UMass campuses in Lowell and Worcester, M2D2 supports 370 jobs, including those associated with the startups based in its two business incubators in Lowell. Last month, M2D2 opened more space in Lowell’s Hamilton Canal District at the 110 Canal building, also home to UMass Lowell’s new Innovation Hub, an incubator for early-stage technology companies.

UMass Lowell also fuels economic activity in the region through entrepreneurial use of its facilities—including the Tsongas Center at UMass Lowell, the UMass Lowell Inn & Conference Center and University Crossing—for events such as conferences that have drawn thousands of researchers, academics and other visitors from around the world.

UMass Lowell is building future economic impact by educating students who will become leaders in business, the community and government after graduation. Approximately 93 percent of UMass Lowell’s 87,000 alumni work in Massachusetts.
Researchers Receive $3 Million Grant to Improve Health of Farmers

NIH Grant Establishes Center of Excellence

The National Institutes of Health awarded UMass Lowell and Mahidol University in Thailand a $3 million grant to conduct research to improve agricultural health in Southeast Asia.

The five-year grant is one of seven awarded by NIH to establish Global Environmental and Occupational Health Hubs (GEOHealth Hubs), regional research and training centers in low- to middle-income countries.

“We’re excited about the opportunity to increase research capacity with our Thai colleagues to help improve the health of farmers in Thai-land and around the globe,” says Prof. Susan Woskie of the Department of Work Environment in the Division of Public Health. “Our first project is to see whether some widely used pesticides used in Southeast Asian agriculture act as endocrine disrupters, leading to diabetes, stroke and coronary diseases, all on the rise in Thailand.”

More than 60 percent of the world’s agricultural workers live in developing countries, with the majority in the Asia Pacific region. Within Thailand, more than 40 percent of the working population is in agriculture.

“Since Mahidol is a large, prestigious public university that is very strong in sciences, medical sciences and engineering, and also has a vibrant social science program including peace studies, my hope is for us to expand our research partnerships and to foster a student exchange program in the future,” says Woskie.

Pedal Power! University Named ‘Bicycle Friendly’ Campus

UMass Lowell Joins Harvard, MIT as State’s Only Honorees

UMass Lowell has been named a “Bicycle Friendly University” by the League of American Bicyclists, joining Harvard University and the Massachusetts Institute of Technology as the only schools in the state to earn the distinction.

After receiving an honorable mention last year in its first-ever application, the university was elevated to bronze status in 2015, becoming one of only 127 Bicycle Friendly Universities in 42 states across the country.

“Receiving bronze is a significant achievement,” says Director of Campus Recreation Peter Murray, who oversees the university’s Bike Shop and Bike-Share programs. “It’s a big step forward for us.”

Murray says the recognition is a direct result of a collaborative approach taken by campus and city leaders to encourage bicycle use.

The Freewheelers bike-share program, which started in 2007 with five bicycles, has grown to a fleet of 35 bicycles at five locations across campus. From July to October this year there were 1,738 bicycle checkouts, a 16.6 percent increase from 2014. The number of unique participants increased 15.2 percent, from 368 to 424.

More bicycles on campus has also led to a big bump in business at the university’s Bike Shop. According to Assistant Director of Outdoor & Bicycle Programs Kevin Soleil, there were 185 shop transactions for fiscal year 2015, a whopping 230 percent increase from the year before.
Campus Bridges Bolstered by $13.4 Million Federal Grant

University’s Partnership with City Helps Secure Competitive Grant

The eight bridges that cross Lowell’s canals, connecting the North, East and South campuses of UMass Lowell, will soon be upgraded thanks to a $13.4 million federal grant secured by the City of Lowell in partnership with the university.

“This is a huge opportunity for the university and the city,” says director of Campus Planning and Development Adam Baacke, who worked with the city to help secure the TIGER, or Transportation Investment Generating Economic Recovery, grant from the U.S. Department of Transportation.

The grant is going toward the Lowell Canal Bridges project, which identified $16.7 million in repairs or replacement costs for the city’s historic structures. The university will contribute $2 million to the project, while the city will chip in $600,000 and assume ownership of all eight bridges, at no cost, from Enel Green Power North America, which has owned the bridges since 1986 and will also help pay for the project.

According to Baacke, the university will recover its contribution through savings on transportation costs, while also benefiting from the improved safety and appearance of the new structures.

“We’re putting all this investment in our campus to support the high-quality research institution that we are, but the infrastructure between our campuses, frankly, just doesn’t send that same message,” says Baacke, who adds that the new bridge to East Campus will provide the most noticeable improvement. He estimates the entire project will be completed by 2019 or 2020.

University Wins Honors for Washington, D.C., Partnership

Program Give Students Capitol Hill Experience

In recognition of its commitment to The Washington Center for Internships and Academic Seminars, the university recently received the center’s “Public Institution of the Year Award.”

Over the past two decades, UMass Lowell has sent more than 150 students to the program, a nonprofit that combines hands-on professional experience with classroom learning. Students earn academic credit for taking intensive seminars with policy experts, media professionals and elected leaders and completing internships on Capitol Hill and around the city.

“This program gives our students an opportunity to really experience what professional life will be like after graduation,” says Francis Talty, assistant dean of the College of Fine Arts, Humanities and Social Sciences.

Nicholas Imperillo, a senior majoring in homeland security studies, spent summer 2015 at TWC. He interned at Washington’s Metropolitan

Homeland security studies major Nicholas Imperillo (third from left) did an internship with the Washington Metropolitan Police Force while spending a summer semester at The Washington Center.

Police Department. Working for an assistant chief in the Strategic Services Bureau, his assignments included helping rewrite lesson plans for the police academy and assisting with the startup of a community engagement project that brought citizens and law enforcement officers together.

“I got to work with all levels of leadership. It was eye-opening,” says Imperillo, a member of the Honors College who has been accepted into the Criminal Justice master’s program.

College of Sciences Named for Kennedy Brothers

Renaming Recognizes Family’s Commitment to Students, Campus

UMass Lowell has named its College of Sciences for alumni John and William Kennedy.

The naming of the William J. and John F. Kennedy College of Sciences recognizes John Kennedy’s long record of philanthropy at UMass Lowell, including a major commitment to support the students, faculty and facilities of the College of Sciences. He and his older brother, William, who passed away in 1994, both graduated from programs in the College of Sciences.

“We’re extremely proud to honor the Kennedy brothers, who credited the education they received here with changing the course of their lives,” Chancellor Jacquie Moloney said at the official naming ceremony. “John’s gift will enable us to provide those same kinds of life-changing opportunities to science students for years to come.”

William Kennedy graduated from Lowell Technological Institute, one of UMass Lowell’s predecessor institutions, in 1954 with a bachelor of science degree in textile chemistry; John graduated in 1970 with a bachelor of science degree in mathematics and later earned a master of science degree in accounting at UMass Amherst.

William rose to become a vice president of research and development at Velcro and John went on to a highly successful career in the tech sector, retiring as the president and chief financial officer of Nova Analytics and Nova Technologies in 2007.

“I truly believe I wouldn’t be where I am today without the education I received here and at Amherst,” says Kennedy.

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Rocket Scientists Launch Planet-finding Telescope

Technicians prepare the scientific payload housing the PICTURE-B instrument at the Army’s White Sands Missile Range in New Mexico.

**Instrument Will Observe the Sun-like Star Epsilon Eridani**

The university’s rocket scientists—Prof. Supriya Chakrabarti and Asst. Prof. Timothy Cook of the Department of Physics and Applied Physics—launched a rocket-borne experiment called PICTURE-B to take direct images of the disk of dust surrounding a nearby Sun-like star. The launch took place in late November from the Army’s White Sands Missile Range in New Mexico.

Epsilon Eridani—an orange dwarf star that is younger, fainter and slightly cooler and less massive than the Sun—is located 10 light-years away in the constellation Eridanus. It is the nearest planetary system to Earth, harboring one (or possibly two) planets as well as a pair of asteroid belts and a dust disk.

“We are going to directly measure the visible light scattered by the debris disk around Epsilon Eridani,” explained Cook before the launch.

“If successful, the PICTURE-B mission would help advance the design of future space telescopes for the direct imaging of exoplanets. Our project’s ultimate goal is to discover Earth-like planets around sun-like stars capable of supporting life.”

PICTURE-B, which stands for Planet Imaging Coronagraphic Technology Using a Reconfigurable Experimental Base, features a visible nulling coronagraph instrument, or “nuller,” that blocks out the overwhelmingly bright light from Epsilon Eridani so that faint objects very close to the star—such as planets, asteroids and interplanetary dust—can be investigated in great detail.

“The study of extrasolar planets is one of the most exciting endeavors of modern science,” notes Chakrabarti. “PICTURE-B will demonstrate that routine imaging of exoplanets can be accomplished at modest cost. This will have a profound impact on exoplanet research and can lead to a better understanding of the formation of planetary systems as well as our place in the universe.”

The team is collaborating with researchers from Boston University, Northrop-Grumman Inc. and NASA’s Goddard Space Flight Center.

PICTURE-B was launched aboard a Black Brant IX, an 18-foot-long, two-stage sounding rocket capable of carrying up to 1,200 pounds of payload into suborbital flight. This rocket is not powerful enough to boost the instrument to orbital speed so after about four minutes of scientific observation, the payload is designed to fall back to Earth, deploying a parachute to slow down its descent and allow for a safe recovery of the payload on the ground.

Following the mission, PICTURE-B will be reconfigured so it can conduct extended observations of fainter, more distant debris disks around other stars using large helium balloons that would carry the instrument high into the stratosphere.

“This next mission, which will be designated as PICTURE-C, will allow us to take longer, deeper images of a number of nearby target stars, including Alpha Lyrae and Beta Leonis,” says Cook.

Last year, NASA awarded Chakrabarti and his team a five-year grant worth nearly $5.6 million for the project. PICTURE C is scheduled to be launched on two separate flights, in the fall of 2017 and 2019, from the Columbia Scientific Balloon Facility in Fort Sumner, N.M.