

**MICHIGAN STATE**  
**UNIVERSITY**

October 28, 2016

**MEMORANDUM**

**To:** Trustee Finance Committee

**From:** June Pierce Youatt  
Satish Udpa

**Subject:** 2017-18 Appropriation Request and Capital Outlay

**RECOMMENDATION**

The Trustee Finance Committee recommends that the Board of Trustees adopt Michigan State University's 2017-18 Operating and Capital Outlay Request, including components for the University General Fund, AgBioResearch, and the Michigan State University Extension.

**RESOLUTION**

BE IT RESOLVED, that the Board of Trustees of Michigan State University hereby adopts the attached 2017-18 Appropriation Request and Capital Outlay.

**BACKGROUND**

The Appropriation Request provides parameters that will guide development of MSU requests through the 2017-18 appropriation cycle. Action on the Request authorizes the Administration to respond to Michigan Department of Management and Budget reporting requirements.

Attachments

cc: Trustee Policy Committee, L. Simon, B. Beekman, M. Burnham, R. Noto,  
D. Byelich, B. Johnston



Office of the  
**PROVOST**

Office of the  
**EXECUTIVE VICE  
PRESIDENT FOR  
ADMINISTRATIVE  
SERVICES**

# 2017-18 Appropriation Request

## MICHIGAN STATE UNIVERSITY

### INTRODUCTION

Since the mid-1960s MSU has been recognized as a top academic institution and is a member of the prestigious Association of American Universities, consisting of a group elite research universities in the United States and Canada. Our value proposition is to make high-quality education accessible to qualified students, ensuring access and investing in Michigan's future. In fact, MSU enrolls more Michigan students than any public university in the state.



### ENTREPRENEURIAL ECOSYSTEM

Michigan State University is a vital engine for Michigan's prosperity and provides value for students and stakeholders across Michigan. MSU maintains a presence in each of the state's 83 counties and is deeply engaged in Flint, Detroit, and Grand Rapids, working collaboratively to provide expertise and a network of resources with skills in food safety, water, health, education, and sustainability.

Michigan State University has an annual economic impact of more than \$5 billion and seeks to instill an entrepreneurial and high performance mind-set in its students, faculty, and staff. That spirit of entrepreneurialism permeates the university at all levels, through numerous direct opportunities for students or the extensive efforts and impact the university's outreach efforts make across the state. Examples of student opportunities include the Innovate State speaker series, business plan competitions, the entrepreneurship minor, student business incubators, and numerous additional opportunities available across campus.

In fact, approximately two-thirds of MSU's seniors reported participating in an internship, co-op, field placement, student teaching, or clinical placement during their degree program. In addition, approximately 19,000 students work on campus in some capacity each year.

The entrepreneurial ethos fits hand-in-glove with our progressive pedagogy and overall approach to developing "citizen scholars" and what we and our partners at IBM call "T-shaped" scholars: students who are prepared for real-world careers demanding both technical and disciplinary expertise along with connective soft skills.

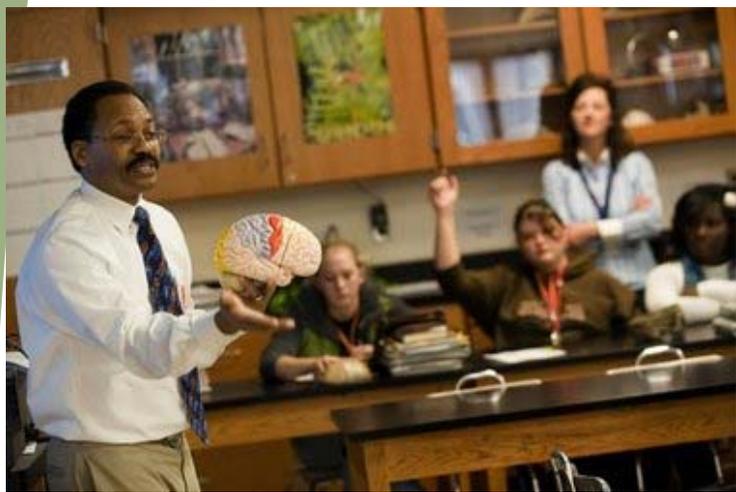
Finally, MSU Extension's presence touches all 83 Michigan counties, availing all Michigan residents to the resources and expertise they need to advance the state and its economy. One example; the MSU Product Center's efforts have resulted in 480 new businesses since 2004 with increased first-year sales of \$331 million and more than 1,300 jobs created.

# MSU's Programmatic and Strategic Commitment

MSU's programmatic strategy is premised on the Bolder by Design strategic framework and seeks to further education and research in Science, Technology, Engineering, and Math as well as other curricular priorities in order to expand economic impact locally, regionally, and internationally advancing the common global good.

MSU routinely receives in excess of \$500 million in sponsored awards annually, focused in areas such as food systems; plant sciences; health sciences; computational sciences emphasizing biology and food/food-chain; and population and the environment, including food, water, and energy.

Additionally, MSU's programmatic investments seek to improve technology and teaching, prioritize interdisciplinary study, the narrowing of graduation gaps amongst various student groups, and fostering a healthier campus.



At MSU, student credit hours in Science, Technology, Engineering and Math have increased by more than 40 percent over ten years, representing an additional \$35 million in additional instructional costs.

MSU is consistently ranked as one of the top institutions nationally for internationalization while also enrolling a larger percentage of resident students than Big Ten peers.

**At MSU, student credit hours in Science, Technology, Engineering, and Math have increased by more than 40% over ten years, representing an additional \$35 million in costs**

In fact, MSU's approximately 75 percent resident undergraduate population exceeds the Big Ten average by 10 percent, making it among the most home-state centric in the conference.

MSU's success is evidenced by its consistent inclusion among the top 100 universities in the world and in its acclaimed programs with 29 featured in the top 25 nationally, including six rated number one. Additionally, MSU's graduation rate exceeds the *U.S. News & World Report* predicted rate by 10 percentage points, an indicator of educational quality and high performance.

MSU also routinely enrolls in excess of 8,500 Pell Grant recipients, representing more than 22 percent of the undergraduate population while at the same time keeping both the average debt amount and the proportion of students graduating with debt below state and national averages. MSU administers in excess of \$640 million in financial aid annually, with more than 65 percent of students receiving some form of aid. Budgetary increases to financial aid routinely outpace increases to tuition as MSU carefully monitors family income distribution, financial aid distribution, debt measures, and other financial aid metrics.

It is no surprise that more than 90 percent of MSU's graduates were employed or continuing their education within six months of graduation, and a similar percentage rated their educational experience as excellent and would choose MSU again if starting their experience over. Of 2014 graduates with employment, more than 60 percent remained in Michigan, with an additional 15 percent employed in other regional states.



# MSU Resources and Performance Funding Model

MSU's reputation as a renowned public research university despite the most difficult financial circumstances ever experienced in higher education, with significant reductions in state support for its students and programs. In fact, Michigan ranks 47th of 48 states reporting for rate of change to higher education appropriations for the ten-year period ending fiscal 2016. Additionally, MSU operates with approximately \$3,800 less per student in state appropriations support than its Big Ten peers, an amount that represents approximately \$174 million in lost resources across the institution. When adjusted for inflation, MSU's appropriation per student has declined by more than 50 percent since 2000-01.

Further, since the inception of the performance funding model in 2011, MSU's appropriations have been more adversely impacted than any other state institution that complied with all tuition restraint provisions over the period, a loss of nearly \$8 million. However, at the same time, MSU enrolls more resident students and total undergraduates than any state institution, conducts approximately half of the total research and development activity in the state, and produces the second most critical skills degrees annually next to the University of Michigan. As a result, it is imperative that new incremental funding appropriated to higher education this coming year goes to restoring the funding of complying institutions to at least the 2011 levels. In addition, it is important that the model be modified to better reflect the performance of all institutions. This would include addition of the IPEDS marker for community engagement, proportion of undergraduates graduating with debt, and the number of Pell students, or combinations of the above.

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Finally, additional consideration should be provided to those institutions that feature the combination of significant numbers of Pell students, high graduation rates, and a low proportion of students graduating with debt.

MSU continues to do more with less for public higher education, despite the disinvestment by state legislators. MSU expends approximately \$6,300 less per student than

its AAU peers, making MSU among the most efficient institutions in the group. Additionally, MSU is among the most efficient in the Big Ten as measured by the number of students per employee while simultaneously approximating the Big Ten average for student-to-faculty ratio.

MSU also ranks among peer leaders for grounds maintenance and custodial efficiency. The university has reduced greenhouse gas emissions by 25 percent since 2010 and uses 10 percent less heating units (BTU) per person than it did in 2006.

MSU has successfully navigated the most challenging economic reality in higher education history. As a result of MSU's efficient and high-performing focus, we have been able to maintain our leading-edge faculty and research enterprise while also improving innovation, entrepreneurship, and state economics. In order to assure ongoing and improving performance, MSU continually assesses itself against relevant industry metrics and benchmarks as well as understanding best practices from other industries to inform operations, processes, and systems.

# MSU AgBioResearch & MSU Extension

As the nation's pioneer land-grant university, MSU is especially committed to working with Michigan stakeholders to meet the needs of agriculture and natural resources stakeholders through a variety of means, including a programmatic presence in communities across the state. With annual economic impact of more than \$102 billion, Michigan's food and agriculture sectors are a leading force for economic stability in Michigan. Agribusiness is among the fastest growing economic sectors in the state, and MSU AgBioResearch and MSU Extension contribute to Michigan's economy with significant research, educational programs and a community presence to boost economic development and growth related to agriculture and natural resources, community vitality, entrepreneurship, and career preparation for young people. Therefore, it is essential that full recurring support be provided to both MSU AgBioResearch and MSU Extension, including inflationary increases.



MSU Extension is focusing on:

- Developing youth and communities
- Ensuring safe and secure food
- Ensuring strong communities
- Keeping businesses strong
- Keeping people healthy
- Making the most of Michigan's natural assets
- Supporting food and agriculture

To maximize its impact and fiscal responsibility, MSU continues to build on its partnerships with local, state and federal government agencies and with the private sector while maintaining its core values and commitments. Leadership continues to balance increasing the value of MSU's work and ensuring it matches the high quality expected of MSU. We engage our partners, our students, our faculty and the stakeholders and communities we serve, both locally and globally, to shape a shared future of sustainable prosperity.

MSU AgBioResearch is focusing on key research areas in:

- Food, energy, and the environment
- Natural resources policy and management
- Enhanced profitability in agriculture and natural resources
- Secure and safe food systems
- Families and community vitality
- Making the most of Michigan's natural assets
- Supporting food and agriculture





# Capital Outlay Request

The capital outlay requests support programs that have strong national reputations, expanding research bases, and high enrollment demand that will sustain the university and its contributions to Michigan. Funding of these requests will provide economic development in the state, now and in the long term.

Our capital outlay top priority is the construction of a STEM teaching and learning facility that aligns with state and national priorities.

Over the past 10 years, student credit hours in STEM have increased by more than 40 percent. Construction of a new instructional facility focused on supporting education in science, technology, engineering, and mathematics (STEM) disciplines is necessary to continue this programmatic direction. Such a facility would address the continued state and national priority to educate increasing numbers of students in STEM disciplines. A new STEM teaching and learning facility would include modern wet bench teaching laboratories that incorporate active learning principles, foster cross-disciplinary teaching and learning, and support developing and evolving changes in curriculum and its delivery. The facility would bring together a number of teaching laboratories that are currently dispersed across campus to create a central hub for STEM teaching and learning.

## **New construction**

New construction is needed to support high-priority instructional and research programs. The facilities are necessary to support current and future programmatic initiatives in the STEM disciplines including, biomedical, biological, and engineering sciences; computation and data sciences; water and energy; and economic development of Michigan.

**New construction is needed to support high priority instructional and research programs**

## **Renovations and additions**

Requests for renovations and/or additions address extensive programmatic and maintenance improvements required by buildings previously funded by the state. Renovations and/or additions are necessary to reconfigure and or expand space in order to support the work of the programs housed in those facilities, and in some instances, modernization of aging building systems and alignment with current codes and provisions for accessibility. In other cases, due to programmatic requirements, condition, age, and long-term value, full renovation of a building is warranted.

Requests for major renovations and/or additions include the plant sciences-bioeconomy, biological sciences, and music facilities.

## **Major systems replacement**

Current forecasts anticipate general fund facility, instructional, and infrastructure needs of approximately \$304.6 million over the next five years. In view of the extensive facility needs it faces, MSU has drawn upon an increasing amount of internal university resources to address the most critical facility maintenance and programmatic requirements. Self-funding these capital improvements is not sustainable without negative impacts on other programs.

The university seeks funding for more targeted and specific building systems maintenance and instructional space facility modernization. Examples of systems in need of repair or replacement include roofing, windows, electrical, mechanical, chiller, refrigeration, steam, fire, security, and barrier-free access. Instructional space upgrades today extend beyond simply replacing room infrastructure and furnishings, and include new and expanded room layouts and more sophisticated technology installations to support a range of active-learning environments.