October 25, 2013

MEMORANDUM

To: Board of Trustees Finance Committee

From: June P. Youatt
      Satish Udpa

Subject: The 2014-15 Appropriation Request

RECOMMENDATION:

BE IT RESOLVED that the Trustee Finance Committee recommends to the Board of Trustees adoption of the Appropriation Request, including needs for the University General Fund, the AgBioResearch and the Michigan State University Extension.

BACKGROUND:

The Appropriation Request provides parameters that will guide development of MSU requests through the 2014-15 appropriation cycle. Action on the request authorizes the administration to respond to the Michigan Department of Management and Budget reporting requirements.

Attachments

C: Board of Trustees Policy Committee
   Lou Anna Simon, President
   William Beekman, Vice President and Secretary of the Board of Trustees
   Mark Burnham, Vice President for Governmental Affairs
   Robert A. Noto, Vice President for Legal Affairs and General Counsel
   David Byelich, Assistant Vice President and Director of Planning and Budgets
Michigan State University
2014–15 Appropriation Request

Michigan State University is a place of possibilities: founded on core values, rooted to its land-grant heritage, but unbound to location or status quo. This quality is reflected in 30,000 fall admission applications and in graduate exit surveys; in rising global rankings and international profile; and in the assessments of alumni, employers and other partners. A product of our culture of hardworking excellence, this quality is affirmed in our modern motto: Spartans Will.

With an economic footprint of $4.7 billion, more than 36,000 in-state students and nearly a quarter million resident alumni, MSU is an economic pillar and a foundation for Michigan's future competitiveness in a global knowledge economy.

It is an institution founded on a dynamic balance between the theoretical and the practical, the discovery and the dissemination, the knowing and the being. Standing among the 60 great research institutions comprising the Association of American Universities, Michigan State is yet differentiated in its fidelity to each of its core land-grant values: quality, inclusiveness and connectivity. They are tightly linked and demonstrated in myriad ways, from the university’s roster of top scholars and programs to its diverse campus community to its many forms of local, regional and international engagement.

The world’s greatest challenges lie where MSU always has been a research and practice leader, and these are where we will increasingly focus our vast capabilities:

- food systems, safety and plant science;
- water quality, security and management;
- energy and matter, including nuclear physics, advanced materials and bioenergy;
- sustainability, whether environmental, economic or societal;
- health, from zoonotic disease to family medicine and translational research; and
- renewable resources, including agricultural products, biomass and energy.

With MSU’s broad and interdisciplinary capabilities, these areas involve not just the science and discovery necessary to advance cutting-edge knowledge, but innovative application through our expertise in outreach and engagement, communications, value chains, social and political sciences and other competencies.

What animates MSU’s reach toward the future stems from what motivated our founders in the early years of the 19th century, because what was fundamental and important then is still that way today, and will be tomorrow. In that sense, MSU is more a mission driving a university than a university pursuing a mission. It's about the “why and how,” as much as the “what.”

What does change over time are the conditions in which MSU operates, and today those are influenced by constraints on public funding, concerns about enrollment costs and accessibility, rising competition, and the impact of technology. For that reason President Lou Anna K. Simon set in motion a new strategic framework called Bolder by Design, building on the work of earlier programs and adding the new imperative to nurture an institution-wide culture of high performance. Transformational change, leaders understand, is necessary to preserve the quality of our academic programs and enhance the impact of our work in a dynamic and increasingly competitive world.
Emerging themes

The Bolder by Design imperatives are listed below and the four areas in which we are expecting immediate action – in technology and teaching; multidisciplinary work, graduation success, and healthy campus – are embedded in one or more of those six imperatives.

- Enhancing the Student Experience
- Increasing Research Opportunities
- Enriching Community, Family, and Economic Life
- Strengthening Stewardship
- Expanding International Reach
- Advance our Culture of High Performance

Strategic commitment

Within the context of Bolder By Design, planning includes both reinforcement of long term principles and testing selected innovations.

- Sustain MSU’s value proposition of programmatic excellence and opportunity for Michigan residents
- Expand economic impact through both undergraduate and graduate programming including significant economic multipliers, spurring future state growth
- Advance the common global good as one of the world’s top research universities continuing to build on MSU’s pioneer land-grant commitment to find solutions to the most critical challenges facing individuals and troubled communities in Michigan and beyond
- Further education and research across STEM disciplines including science, technology, mathematics and engineering, sustaining broad academic excellence at both the undergraduate and graduate levels
- Within academic programs, integrate technology and teaching/learning, support interdisciplinary study, close graduation gap, and foster a healthy campus
- Target MSU first time undergraduate enrollment at 7,700 for Fall 2014 to optimize instructional faculty and facility usage
- Modify overall undergraduate tuition structure to distinguish between non-major and major students and differentiate core as opposed to professional college tuition structure
- Strengthen University initiatives including plant sciences, food and food chain security, water research, biomedical engineering, reproductive health, and brain science
- Keep MSU faculty at the leading edge of teaching and research while working with businesses and communities across the state to innovate and develop entrepreneurial environments that bolster the Michigan economy and help create sustainable prosperity
- Partner with numerous state and regional universities and community colleges
- Respond to changing financial circumstances with ongoing improvements in efficiency and effectiveness throughout the institution, including constraining personnel costs
- Assess performance across the institution against relevant benchmarks and metrics
MSU funding

MSU requests recurring FY15 appropriations support for the general fund, MSU AgBioResearch (MABR), and MSU Extension (MSUE) sufficient to sustain FY14 programming levels and invest in Michigan’s economic future. The University operates within the context of long-term underfunding and growing enrollment demand, particularly within high-cost disciplines. It is essential that stable, predictable funding be provided to maintain higher quality academic programs and opportunity for Michigan students and to enhance the strategic strengths of MABR and MSUE.

State reductions in higher education appropriations through FY14 resulted in reductions to MSU appropriations of 23 percent since FY02, representing a cumulative loss of over $530 million in operational resources over 12 years. Over the last ten years through FY13, Michigan ranked 50th among the states in changes to appropriations. For FY14, about 22 percent of general fund revenues are budgeted from appropriations, approximately 70 percent from tuition and fees, and the remainder composed primarily of investment income and indirect cost recovery. This compares to FY04 when about 42 percent was budgeted from appropriations and less than 50 percent from tuition and fees.

An additional $11.7 million, or 4.7 percent, appropriation support would be needed from the State beyond the 2.0 percent increment forecast in the 2014-15 Preliminary General Fund Budget Guidelines to freeze tuition rates for resident undergraduates.

MSU is accountable to Michigan citizens. It has the highest number of in-state students among Michigan public universities. Michigan is always the first beneficiary of MSU’s graduates as it delivers high-quality academic programs and global networks with Michigan applications.

MSU continues to be a leader in creating knowledge for the 21st century and as such is recognized as one of the world’s top 100 universities. MSU received $477 million in external funding during FY13 of which about 54 percent was research related. The federal share of research funding was approximately 74 percent. Research and scholarly work of this magnitude has a significant impact on the Michigan economy, both in expenditures and jobs. MSU actively pursues economic growth through programs across the university. Examples include the MSU Center for Community and Economic Development, which provides training and consulting services to Michigan communities.

The university is also a key player in the development of Michigan’s health care and life science sector including educating both nurses and physicians. MSU is involved in partnerships with dozens of hospitals to train physicians, while bringing federal graduate medical education funding into those communities. The College of Human Medicine has campuses in seven communities including Grand Rapids and Traverse City; the College of Osteopathic Medicine has campus locations in East Lansing, Detroit, and Macomb County.
Recently, MSU combined the diverse resources for business outreach, technology commercialization, and new business formation under one roof: the MSU Innovation Center. The Innovation Center is MSU’s single site for economic value creations from MSU innovations. Entrepreneurs and established businesses work with Business-CONNECT, MSU’s portal for engagement with the business community; they access patented technologies at MSU Technologies (the university’s technology transfer office); and they engage in company creation and investment at Spartan Innovations L3C, which focuses on creating sustainable MSU start-ups.

Additionally, the Product Center at MSU helps Michigan entrepreneurs develop and commercialize high-value, consumer-responsive products and businesses in the agriculture, natural resources, and bioeconomy sectors. Since it began in 2003, the Product Center has provided a wide range of venture development services to more than 2,352 clients. It has assisted in the formation of more than 1,324 ventures for new and existing firms, leading to the realized launch or expansion of 310 businesses across Michigan that generated more than $317 million in annual sales, nearly $318 million in investment in Michigan, and the creation/retention of approximately 1,558 jobs.

Funding directly impacts the students MSU is able to attract and retain. Entering student GPA/ACT scores are up over the last ten years. MSU has 28 academic programs in the top 20 nationally. Four graduate programs and one undergraduate program rank number 1. At MSU, 93 percent of graduating seniors who responded last year to the National Survey of Student Engagement rated MSU’s academic quality as good or excellent, and 87 percent said they would attend MSU if they had to do it over again.

MSU’s six-year graduation rate for the class of 2012 was 79 percent, which is 12 percentage points higher than the rate predicted by U.S. News & World Report based on incoming student characteristics. MSU’s plus-12 rate is the highest in the state (among both public and private institutions), and is also second-highest in the Big Ten, exemplifying MSU’s willingness to take risks when investing in a student’s potential. Moreover, it is a measure of quality that demonstrates how well MSU is using its educational resources to graduate students, even in difficult budgetary times.

**Financial aid: assuring opportunity**

MSU is committed to assuring opportunity to higher education for Michigan students. Over 79 percent of undergraduate students and over 73 percent of all students come from Michigan’s 83 counties. For FY14, MSU continued to increase financial aid at a rate greater than increases to tuition with approximately $115.6 million budgeted in financial aid programs, representing a total increase of more than 4.5 percent for one year and 65% over five years.

In FY13, 66 percent of all MSU students received some form of financial aid and 23 percent of undergraduate students received a Pell Grant. In addition to high-need students, MSU carefully monitors the distribution of student-family income and focuses significant aid resources at the students with family income just above Pell levels.
MSU AgBioResearch and MSU Extension

As Michigan's premier land-grant university, MSU is committed to working with our stakeholders to meet the needs of our agriculture industry and has a programmatic presence in communities across the state. The annual economic impact of the food system and agribusiness sector exceeds $91 billion and is a force for economic stability in Michigan. With agribusiness among the fastest growing and largest sectors in the state's economy, MSU, through the research and educational efforts of MSU AgBioResearch and MSU Extension, contributes 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 AgBioResearch is focusing on the following research areas:

- Food and health
- Environmental stewardship and natural resource policy and management
- Enhancing profitability in agriculture and natural resources
- Securing food and fiber systems
- Families and community vitality

MSU Extension is focusing on:

- Assisting the agricultural sector with production issues, risk management, and reducing environmental risks
- Preparing Michigan youth for their future as leaders and citizens
- Providing programs on obesity prevention, food safety, and chronic disease management
- Helping develop a robust community food system across Michigan
- Assisting Michigan's citizens with foreclosure prevention and financial education
- Helping to ensure the appropriate use of Michigan's natural resources

In an era of significantly reduced state funding and increasing expenses, MSU continues to improve how it engages in this important work through partnerships with local, state and federal government agencies and with the private sector while holding true to core values and commitments. Our leadership continues to balance increasing value of our work while 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 is also working with stakeholders and the Michigan Department of Agriculture and Rural Development (MDARD) to pursue the agriculture Strategic Partnership Initiative to secure a pool of flexible funding above inflationary support for AgBioResearch and MSU Extension core activities, directed toward solving impediments to strategic growth and emerging threats with significant stakeholder input.
Facility for Rare Isotope Beams

MSU continues to work with the U.S. Department of Energy Office of Science (DOE-SC) in developing the Facility for Rare Isotope Beams (FRIB) and continues to manage against the annual plan prepared by MSU and approved by DOE. On August 1st, 2013 the DOE-SC approved critical decisions CD-2 and CD-3A. CD-2 baselines the scope, cost ($730M of which the community shares $94.5M) and schedule (completion by June 2022) with a civil construction start by April 2014. The FRIB Project is managing toward an early completion in December 2020. CD-3A allows the project to start civil construction pending an FY2014 appropriation.

The centerpiece of the new user facility will be a superconducting linear accelerator that will increase dramatically the reach of rare isotope research in the United States. The accelerator will produce isotopes that normally exist only in the most extreme environments in the universe and will expand the usefulness of isotopes in a broad range of applications from modeling stars to understanding the workings of nanoscale electronic devices.

FRIB is a critical project for American science and the State that not only will keep MSU on the cutting edge of nuclear science, but will ensure the training of the nuclear scientists of tomorrow while bolstering the economies of mid-Michigan and the entire State. FRIB will cost $730 million to design and build. In FY14, the State made a commitment to bond and service the community cost share of $94.5 million. Construction began in 2012 and will be completed by 2022. It is projected to create hundreds of jobs in mid-Michigan while bringing in more than $1 billion of economic activity to Michigan in the next 20 years. MSU looks forward to continuing its partnership with the State of Michigan to assure the successful completion of this project.

Capital outlay

Prior Capital Outlay request identified the Plant Science Facilities-Bioeconomy/Bio Engineering Facility as our highest priority project. In July 2013 the State passed an amended construction authorization for the Bio Engineering Facility with a total authorized cost of $57.7 million. The State share is $30.0 million and the Michigan State University share is $27.7 million. Michigan State University is extremely grateful for the State support of this key research facility that will support our continued commitment to biomedical and engineering research. 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.

New construction

New construction is needed to support high-priority programs ranging from the sciences to academic/administrative technology. Our highest priority for new construction is the Interdisciplinary Science and Technology building. The facilities are needed to support current and future programmatic initiatives in the STEM disciplines with an emphasis on support for the biomedical, biological and engineering sciences, and economic development of Michigan, now and in the long term.
Renovations and additions

Requests for renovations and/or additions address extensive programmatic and maintenance improvements required by buildings previously funded by the State. Renovations may be needed to reconfigure space in order to support the work of the programs housed in those facilities, upgrades to building systems, and provisions for barrier-free access. In other cases, due to program requirements, condition, age, and long-term value, entire 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 and infrastructure needs of approximately $102.3 million over the next five years. In view of the extensive facility needs it faces, MSU has had to draw upon an increasing amount of internal university resources to address the most critical facility maintenance and programmatic requirements. The ability to continue the trend of self-funding these capital improvements is not sustainable without impact on other programs.

The university seeks funding for more targeted and specific building systems maintenance and instructional space facility upgrades. 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 may include furniture, ceilings, lighting, painting, power, data and technology support, and lab benches and fume hoods.

Governor's Engineering Initiative

MSU's continued emphasis and investment in Engineering programs mirrors the Governor's interest and support for increasing the number of Engineering majors and graduates. Facility investments will provide for infrastructure capacity and support necessary to increase the number of students in Engineering majors, and to provide innovative learning environments and opportunities for research based experiences.

The university seeks funding via the Governors' proposed Engineering Initiative to build out the 3rd and 4th floors of the Bio Engineering Facility which will begin construction Fall 2013, and to renovate space in Wonders Hall into a learning hub with an emphasis on undergraduate Engineering majors.