



Office of the President

December 3, 2018

Mr. John J. Walsh  
State Budget Director  
111 South Capitol  
P.O. Box 30026  
Lansing, MI 48909

Dear Director Walsh:

Central Michigan University prepares students to be leaders, in ways that start immediately and go far beyond job title. **CMU students learn that leadership is a daily opportunity.** With access to more leadership programming than is found at any other university in the state — and likely in the country, CMU students understand that as members of the Central Michigan University family, they have a profound responsibility to help meet the needs of the state, its residents, communities and businesses.

From our roots as a teachers' college, CMU has grown to offer **nationally acclaimed programs in areas ranging from the health professions and engineering, to business and communications, and science and technology.**

Our student and faculty researchers help preserve the earth's resources, discover new ways to treat diseases and advance innovative methods to improve teaching and learning. Our alumni are doctors, physical therapists, physician assistants, researchers and military officers. They are CEOs, lawyers and policymakers. They are top broadcasters, journalists, fashion designers, entrepreneurs, data scientists and social scientists.

CMU is **among just five percent of U.S. universities in the highest two Carnegie research classifications.** We offer approximately 300 academic programs at the undergraduate, master's, specialist and doctoral levels; these are focused especially in STEM, health care and business. CMU students have boundless opportunities for hands-on, real-world experiences that prepare them for careers, including research endeavors that often begin their freshman and sophomore years.

CMU was established in 1892; it has more than 18,000 students on its Mount Pleasant campus and more than 9,000 enrolled online and at more than 30 locations across North America.

With this letter, I welcome you in joining us as we commit to the continual evolution that will meet emerging needs across the state. Here are a few **recent highlights that reflect our impact today:**

- Fourth-year College of Medicine student Samuel Jackson, from Harbor Springs, and Bethany Brown, a doctor of nursing practice, certified nurse midwife and assistant director of CMU's new online

nursing degree completion program, are leading a street medicine program. The initiative involves students from multiple academic programs and provides care to those in need, who otherwise are likely to go without medical attention.

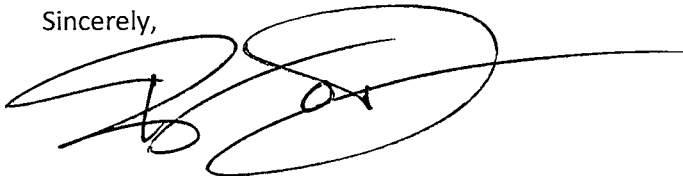
- Provost Michael Gealt was named a fellow of the American Association for the Advancement of Science, in recognition of his research into DNA transfer between bacteria in natural environments. Gealt also works to enhance STEM education in K-12 and higher education. Only four of Michigan's 15 public universities have AAAS fellows this year.
- Angel Stallings, a junior from Detroit, received a \$10,000 merit scholarship from the Public Company Accounting Oversight Board. Angel is majoring in accounting, with minors in information systems and finance. She helped re-establish the CMU chapter of the National Association of Black Accountants to help fellow students develop professional skills.
- Kevin Park, a psychology faculty member who also is part of CMU's neuroscience and the biochemistry, cellular and molecular biology programs, is helping advance the battle against Alzheimer's, which affects nearly 6 million Americans. With a grant from the National Institutes of Health that is expected to reach \$144,000 over two years, Park and a team of students are developing a new model for testing the disease that will more accurately reflect what happens in humans. It is estimated that early diagnosis of Alzheimer's could save up to \$7.9 trillion in medical costs a year.
- Jillian Davidson, director of clinical experiences for teacher education students, is leading the way in co-teaching opportunities. These experiences give CMU students more time working directly with children, long before and during student teaching. These intensive, hands-on experiences allow about 10 percent of CMU student teachers to take full-time jobs early and help school districts overcome a growing shortfall of new teachers.

At CMU, we pride ourselves on academic excellence and cocurricular activities that combine to teach students to think critically, focus on solutions and work in teams. We teach students to be leaders, giving them the support and opportunities that build their résumés and prepare them to start successful careers that benefit the state of Michigan.

Thank you for your continued support.

The following information responds to the questions you asked in your letter to us.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. O. Davies', with a long horizontal line extending to the right.

Robert O. Davies, Ph.D.  
President

## **Funding Formula Progress**

### **1) Critical Skills Completions**

CMU has grown from a teachers' college founded in 1892 to being among just five percent of U.S. universities in the highest two Carnegie research classifications. CMU is the 120th largest public four-year institution in America and offers approximately 300 academic programs at the undergraduate, master's, specialist and doctoral levels. Its nationally acclaimed degrees are in areas ranging from the health professions and biosciences to business and communications.

#### **Operational Changes to Improve Performance within this Metric Category**

CMU adapts to the changing needs of our students, employers, state and society. In FY 2012, the state reduced CMU's budget by 15 percent and subsequently introduced the performance funding metrics. The inception of performance funding metrics caused added emphasis on CMU's decision-making regarding programmatic changes, operational changes and facility needs moving forward. The following section discusses many of those changes.

CMU's program offerings are robust and reviewed on a continual basis for content and marketability. We currently offer programs in the following critical skills areas:

- Astronomy
- Athletic Training
- Audiology
- Biology
- Biochemistry and Chemistry
- Biomedical Science
- Communications Disorders
- Computer Engineering
- Computer Science
- Earth and Atmospheric Sciences
- Electrical Engineering
- Environmental Studies
- Fermentation Science
- Geography
- Geology
- Health Administration
- Health Sciences
- Industrial Engineering Technology
- Information Systems
- Mathematics
- Mechanical Engineering
- Medicine
- Meteorology
- Neuroscience
- Nutrition and Dietetics
- Physics
- Physician Assistant
- Physical Therapy
- Public Health
- Speech-Language Pathology
- Statistics

Over the past five years, CMU has experienced significant demand and growth in our engineering and medical programs. Our College of Science and Engineering is currently designing an environmental engineering program. Our College of Health Professions is launching an online nursing degree completion program. Our College of Medicine is assisting in filling a major shortage of medical providers in the state. Operationally, CMU has invested significant resources in critical skills areas by hiring top-tier faculty cohorts to enhance the instructional quality and research agenda within the College of Science and Engineering. In

addition, CMU opened student success centers in each college. CMU provides academic advising, career services, internship placements and tutoring. Time spent with advisors is proven to increase retention and persistence, and gives students a focused plan for timely degree completion.

Significant investment has also occurred in our facilities. CMU has added active-learning classrooms for greater engagement and academic outcomes, upgraded technology in many buildings and our new Center for Integrated Health Studies is currently under construction. This facility will enhance the university's ability to deliver several undergraduate and graduate programs in health professions. This includes expansion of existing programs within The Herbert H. and Grace A. Dow College of Health Professions. Interest continues to grow in these fields and CMU is well positioned to serve student demand and societal needs.

CMU's capital outlay submission this year centers on science programs. The Brooks Hall renovation (submitted separately to the state) will modernize 54-year-old instructional and laboratory space, enhancing technology while advancing active teaching and learning, research and collaboration among students and faculty. This renovation will address ongoing demand for STEM-oriented degrees.

Overall, CMU continues to dedicate additional resources in critical skills areas as they play a large role in the future success of the university and the state.

#### Outcomes under the Performance Formula

The majority of CMU freshmen cite science as an area of interest. This reflects CMU's high-quality programs and vast opportunities to work closely with faculty on research as early as freshman year. This student interest will enhance CMU's performance under this metric. The proportion of students with critical skills majors increased from 31 to 34 percent from 2016 to 2018.

Additional emphasis in this growth area over the next 10 years will continue to enhance CMU's critical skills completions. CMU's 7.9 percent growth in critical skills completions from 2013 to 2016 reflects strong interest in critical skills areas.

## **2) Research & Development**

CMU has shown significant growth in its research enterprise. CMU recently advanced from a Carnegie classification of "Doctoral Universities – Moderate Research Activity (R3)" to the classification of "Doctoral Universities – Higher Research Activity (R2)". This added emphasis on research is apparent with our 30 percent growth from 2015 to 2016 in research expenditures.

#### Operational Changes to Improve Performance within this Metric Category

During the last several years, CMU has initiated efforts to hire several cohorts of faculty who will collaborate in a single research area. CMU has hired Great Lakes research faculty, a rare isotope research group in physics, a cohort focused on neuroscience, and a sustainable energy cohort. Overall, CMU faculty and staff were published last year in 450 peer-reviewed journal articles.

The deans at CMU have been increasing start-up packages to enable the university to compete for high-quality faculty, and their ability to hire first-choice candidates has increased. As a result, junior faculty have been more successful in competing for federal grants — a trend we expect to continue.

The university also has added research facilities in the biological and biomedical areas to enhance the rate of productivity. These expenditures include a 13,000 GSF laboratory facility (\$7 million) that will advance the biology and medical disciplines in CMU's recently completed Biosciences Building (\$89.4 million, \$30 million of which was state funding). This was the single largest capital project in CMU's history, and two-thirds of its space is dedicated to research.

Specific research achievements include CMU's Institute for Great Lakes Research, led by biology professor Don Uzarski, who has received \$20 million in EPA grants to monitor and assess Great Lakes coastal wetlands. Koblar Jackson and Juan Peralta recently received a \$4.8 million U.S. Department of Energy research grant in physics, and Ute Hochgeschwender received a \$2.25 million National Institutes of Health grant to study the use of bioluminescent light to control and repair damaged brain cells. CMU's investment in research and scholarly activity is raising our profile on a national level.

CMU's primary commitment continues to focus on quality undergraduate education, professional master's degrees, and a cohort of carefully focused professional and doctoral programs. As part of its educational process, CMU involves students — including those at the undergraduate level — in research with faculty members. This research provides real-world experience, enables students to learn the process of discovery and put theory into practice — all of which ensure their success in the state and global marketplace.

#### Outcomes under the Performance Formula

CMU is proud to have achieved R2 Carnegie classification through research efforts that serve our students and the state extraordinarily well. Yet, the methodology of the state's performance funding penalizes us for this achievement due to new national peer comparators. In FY 2016, the national median research expenditures for R2 institutions was nearly \$50 million, and the top 20 percent nationally spent nearly \$85 million annually. CMU's research expenditures were \$15.6 million. Although research expenditures increase annually at CMU, without a significant change in its mission, CMU will not reach the top 20 percent nationally — nor would that serve our students or the state well.

#### **Performance Funding Scored vs. National Carnegie Peers**

#### **3) Six-Year Graduation Rate**

##### Operational Changes to Improve Performance within this Metric Category

Nurturing student success is CMU's No. 1 strategic imperative. To help more students attain their academic goals, CMU has expanded strategic initiatives that enhance academic support services and improve progression to degree. These initiatives promote earlier identification of potential struggles and provide outreach, support and monitoring of student progress including credits earned each term, year-to-year persistence and progression toward graduation. Specific initiatives include the following:

- Expansion of advising and student support services that help students solidify their academic priorities and development of study habits, academic integration, personal well-being and the management of finances. Success coaches, for example, work with new students in support of their academic and personal goals. CMU is a leader in providing Success Centers in both residence life facilities and the academic colleges. Students have access to advisors, success coaches and counselors. CMU recently launched a Financial Wellness Collaborative, which educates students on the costs associated with attending college, enhances the importance of living within their personal budget, and provides greater awareness of the pitfalls of borrowing a large amount of funds through student loans. This initiative teaches students to manage their funds smartly, with a long-term view.
- Leveraging data and predictive technologies of success markers to aid faculty and staff in the identification of and outreach to students who may need additional support to remain on track for timely graduation. These systems improve the tracking of individual student progress and provide advisors with alerts regarding course completion and progress. Intensive outreach then is directed to students with academic, financial and/or adjustment issues.
- Re-engineered financial assistance through (a) expansion of aid to more students with demonstrated need or hardship throughout the four or five-year degree program, (b) increased merit-based awards to incentivize four-year degree completion, and (c) expanded merit-based awards for transfer students, as increasing numbers of students are choosing to complete degrees through courses at multiple institutions. CMU continues to strategically and thoughtfully invest financial support in recognition of academic achievement and opportunity, diversity and financial need. Over the past five years, CMU has increased its base funding for scholarships by more than 45 percent, from \$34 million to nearly \$50 million.

#### Outcomes under the Performance Formula

In FY 2016, the median six-year graduation rate for R2 Carnegie peer institutions was 54.8 percent. CMU's six-year graduation rate of 57.5 percent ranked above the median. CMU will remain above the national median and continue efforts to improve this figure each year.

#### **4) Total Degree Completions**

##### Operational Changes to Improve Performance within this Metric Category

The total degree completions metric is based on the number of degrees earned annually. CMU is the 120th largest four-year public institution in America and offers approximately 300 academic programs at the undergraduate, master's, specialist and doctoral levels. Its nationally acclaimed degrees include programs ranging from the health professions and biosciences to business and communications. CMU places tremendous emphasis on assisting students in attaining their degrees and devotes significant resources to the support services as noted in the response to metric 3, as well as a dedicated faculty to educate and mentor students.

Outcomes under the Performance Formula

CMU ranked in the top 20 percent nationally against our R2 national Carnegie peers with 5,885 degree completions in 2016. CMU's performance in this area will continue to rank in the top 20 percent nationally. This ranking reflects interest in CMU programs, as well as the quality of CMU students, faculty and staff.

**5) Institutional Support as Percentage of Core Expenditures**

Operational Changes to Improve Performance within this Metric Category

CMU prides itself on being good stewards of public funds. CMU continually reviews staffing levels and resources in the institutional support function to ensure funds are spent wisely, and attempt to allocate additional funds to areas focused directly toward serving students. In FY 2015, 10 percent of our general fund expenditures went toward institutional support. This placed CMU slightly outside of the national median of public peer institutions. CMU has subsequently invested substantial funding into scholarships, student support services and instruction. Over the past five years, CMU has increased base funding for student scholarships by more than 45 percent, from \$34 million to nearly \$50 million. CMU closely monitors where dollars are allocated and will place continued emphasis on academic and student success.

Outcomes under the Performance Formula

Recent efforts to align more resources in instructional and student service areas will be realized in future years. Based on the recently released BLM scorecard, in FY 2016, the median percentage of institutional support as a percentage of core expenditures for R2 institutions was 11.4 percent. CMU's institutional support as a percentage of core expenditures was 10.2 percent. This places CMU above the nation median. CMU will receive two points in this metric next year, if the metrics remain in place.

**6) Percentage of Students Receiving a Pell Grant**

Operational Changes to Improve Performance within this Metric Category

Access and opportunity underpin Central Michigan University recruiting practices. CMU serves students from every county in Michigan and its multicultural student population, as a percentage of total on-campus enrollment, has increased by nearly 10 percent since the fall of 2010. CMU develops impactful services to promote student success and prepare them for meaningful careers and productive lives. In addition, CMU continues to thoughtfully invest in need-based packages to assist students in realizing their academic goals.

CMU also prides itself on affordability, as is seen in the fact that we have had the lowest cumulative undergraduate tuition increase of all 15 public institutions over the last nine years. It is notable that CMU's self-constrained tuition increases are significantly more stringent than what the state would allow, totaling 25.6 percent below the state-mandated tuition restraint caps of the past seven years. CMU ensures a positive impact on the residents and communities of our state through our efforts to increase access, affordability, individualized support, outreach to Michigan K-12 students and partnerships with Michigan community colleges.

While the state of Michigan continues to be the university's principal market, CMU also exerts nimble recruitment strategies for identifying and attracting out-of-state students.

Outcomes under the Performance Formula

CMU scores well in this metric with 35.4 percent of students qualifying as Pell-eligible. The national peer average is 34.5 percent. These figures reflect CMU's continued commitment to serving all students.

**Biggest Challenges Related to the Distribution of Funding Under the Formula**

CMU performs quite well under the current performance funding metrics. The metrics attempt to reward institutions for improvement and success in each category. Unfortunately, situations arise that penalize institutions, in specific categories, for positive achievements. One example was when CMU's Carnegie classification changed in 2015. The change in classification was largely based on the Center for Postsecondary Research recognizing additional universities into the doctoral institutions category. Rather than having a disproportionate amount of institutions in the R3 category, a number of high level R3 institutions shifted to the R2 category and a number of high level R2 institutions moved to the R1 category. CMU moved from a high level R3 institution and became a smaller R2 institution. This change in classification hindered CMU in the performance funding metrics due to a change in national peers. CMU's mission has not changed and it continues to serve student needs the same way it did before the change in Carnegie classification. Further, our academic outcomes have remained the same or improved.

The performance funding metrics need greater flexibility when such changes occur. As discussed earlier, in FY 2016, the national median research expenditures for R2 institutions was nearly \$50 million, and the top 20 percent nationally spent nearly \$85 million annually. CMU's research expenditures were \$15.6 million. Although research expenditures increase annually at CMU, without a significant change in its mission, CMU will not reach the top 20 percent nationally. During the same timeframe, the national median research expenditures for R3 institutions was \$11.8 million, and the top 20 percent nationally spent \$21.4 million.

**Suggestions to Align State Funding with Student Outcomes**

The current year amount of performance funding equates to about 2 percent of the overall appropriation for higher education. Half of the current year performance funding is allocated proportionately to the FY 2011 appropriation, which does not align with student outcomes. The other half is allocated through the use of metrics. CMU encourages the state to work with higher education institutions over the next year to determine greater alignment between state funding and student outcomes. CMU also requests that disparity among appropriations per fiscal-year equated student (FYES) be reviewed. The institution receiving the highest appropriation per FYES, receives \$6,000 more than the institution receiving the lowest appropriation per FYES. CMU looks forward to participating in future discussions regarding potential new metrics and funding allocation methods.



### **Enrollment Information**

CMU's annual enrollment for 2017-18 was 27,028. This figure is based on the unduplicated headcount of all part-time and full-time students. CMU anticipates annual enrollment for 2022-23 of 25,528. The top five programs, based on enrollment, are listed below.

#### **CMU's top five programs/majors and enrollment figures for 2017-18:**

Master of Science in Administration	3,098
Psychology	1,222
Biology	778
Marketing	755
Recreation	657

#### **CMU's anticipated top five programs/majors and enrollment figures for 2022-23:**

Master of Science in Administration	2,756
Psychology	1,126
Marketing	731
Biology	703
Master of Business Administration	659

### **Strategic Planning**

CMU has carefully analyzed our university and the changing demographics in our state. We believe that our mission, as stated, is responsive to declining K-12 enrollments and to the workforce transformation that reflects a more digital world regardless of the field. As our mission states, Central Michigan University is "a community committed to the pursuit of knowledge, wisdom, discovery and creativity. We provide student-centered education and foster personal and intellectual growth to prepare students for productive careers, meaningful lives and responsible citizenship." This mission is bolstered by our newly revised strategic plan, Advancing Excellence, 2017-2022, which designates three imperatives:

- Nurturing student success;
- Fostering scholarly activity; and
- Strengthening partnerships in Michigan and beyond.

Our mission and strategic plan guide us in our response to the declining K-12 enrollments and workforce transformation. Some of the actions we have taken:

- Creation of undergraduate, graduate and professional programs to meet state needs. This includes:
  - CMU's Master of Science in information systems, which has expanded to an online format with three tracks, including one in cybersecurity;
  - Our Master of Entrepreneurial Transactions and 4-year-old MS in Engineering; and
  - Our MD program in the College of Medicine.

Our future plans include:

- Adding more engineering disciplines;
  - Launching an online degree completion program for registered nurses to attain their Bachelor of Science in nursing; and
  - Growing additional programs in the healthcare industry, especially at the intersection of business and healthcare, such as health informatics and healthcare administration.
- Expansion of leadership opportunities for students. CMU has long been recognized nationally for its Leadership Safari program that serves more than 2,000 incoming students a year. CMU already has more leadership programming than any university in the state — and likely in the country — through Safari, its leadership camps, leadership scholarships and leadership minor. All students will be increasingly immersed in leadership experiences as part of their educational journey at CMU, identifying personal values, exploring diverse viewpoints, participating in volunteer activities and developing their sense of purpose.
  - Continued quality improvement initiatives, such as:
    - Increased hiring in academic growth areas and reduced hiring in areas of declining student and employer demand.
    - Continued use of automated systems to improve the productivity of students, faculty and staff across the university.
    - Management realignment. Continual assessment of our systems and processes to create operational efficiencies and allow more funds to be directed to instruction and student support.
  - Strategic expansion of external partnerships. Central Michigan University has launched a premier partner program that will designate and nourish mutually beneficial relationships. These will increase funding, internships and job placements for students, and give elite partners access to future employees, research capabilities and educational opportunities for their existing employees. Ford Motor Co. and the Quicken Loans family of companies have been announced as the first two premier partners.
  - Increased external research funding from federal and corporate sources. CMU faculty and students, in the past fiscal year, were awarded nearly \$17 million.
    - We have improved our research processes and extended our compliance operations to prepare us for continued expansion in external funding. Growth of faculty in the engineering and healthcare areas is beginning to garner increased funding from the National Institutes of Health and other federal agencies. Additionally, several major corporations are increasingly supporting research and scholarly activities in business, engineering and science. Interesting niche growth areas include the design of clothing to meet healthcare or environmental needs, with support from the health industry and the automotive industry. For example, support from Spectrum Health has led a team of entrepreneurship, fashion merchandising and design, and apparel product development and merchandising students to develop an insulated bra for mastectomy patients.

- Attraction of students nationally and internationally, for both undergraduate and graduate disciplines. We are increasing the number of students from other states as well as other countries. This is important because industry, including healthcare, requires more workers than can be supplied by Michigan high school graduates. About 70 percent of all CMU graduates remain here in Michigan. We believe job opportunities from traditional employers, coupled with our emphasis on entrepreneurship, will continue to fuel retention of CMU graduates supporting the state economy. We already see this in our medical school graduates, approximately 50 percent of whom are in Michigan-based residencies.
- Increased external funding through the enhancement of our Advancement efforts. These funds are ever more necessary with the rising costs of high-quality academic programs and the state of Michigan's relatively limited higher education appropriation. CMU is in its second major capital campaign, and in the past two years secured more million-dollar individual gifts than throughout its history combined.