

TO: Board of Trustees
cc: James J. Beckett
Elaine Wood
Jay Hooper
College Community
NMC Foundation Board
FROM: Timothy J. Nelson, President
SUBJECT: Update
DATE: February 16, 2015



Thank you all for everything you do in pursuit of “Keeping Learning at the Center.”

Activities of Note: Faculty and Staff

This section recognizes the good work being done and linkages to the Strategic Agenda, Strategic Directions and Goals are provided where possible.

- Great Lakes Maritime Academy Faculty are among 6 finalists for the prestigious Lloyd's List North American Maritime Awards 2015 in the Training Award category. This award goes to a company for outstanding commitment in training its employees ashore or at sea; or a company or institution that can demonstrate a contribution toward improving training standards across the maritime industry as a whole. Judges will be looking for examples of investment in new facilities and courses, innovative training solutions and a sustained, effective approach to developing quality staff in the maritime sector. The winners will be announced at the awards ceremony and dinner to be held on February 18, 2015, at the exclusive Houstonian Hotel, Club and Spa, Houston. The nomination submission is attached. (SD1)
- GLMA reports another great year of U.S. Coast Guard license exam results. The Engine Program had 13 who tested, taking all 7 modules including the 2 steam modules. Eight passed all modules, with the other 5 having to retake 1 or 2 modules; all passed the two steam modules. These results indicate a 92.3% passing rate of exams administered. The Deck Program had 23 tested, with 16 passing all modules, 5 only needing to retake 1 module and the remaining retaking 2 or 3 modules. The Deck results reflect a 94% passing rate of exams administered. Any wonder why our GLMA faculty are award finalists! Thanks to everyone's efforts. (SD1, SD5)
- NMC has been invited to participate, along with 11 other Michigan Community Colleges, in Cohort I of the Michigan Guided Pathways Institute. As a participant, NMC will become part of a state and a national network of colleges working to implement a set of principles and practices which research suggests will improve processes to help students connect, enter, progress and complete programs of study leading to credentials of value in the labor market. The selection was based on materials submitted, which indicated our institution is well positioned to take on this work. As a member, NMC's team will have access to educational resources provided through the Kresge Foundation. (SD1, SD3)
- NMC faculty has won top honors in two of three categories (student, adjunct, full-time) at the LAND Conference in Grand Rapids this past week for best conference presentations. Fellow LAND attendees cast ballots.

- Adjunct Faculty, 1st Place: **Teresa Scollon**, "Five Ways to Use Poetry to Teach Even if You Don't Get Poetry"
- Full-time Faculty, 2nd Place: **Regis McCord**, "Five Things in Thirty-five Years (or one thing every two minutes!): Reflections of a Slow Learner and a Fast Talker"
- Full-time Faculty, 1st Place: **Melissa Sprenkle, Michael Anderson, and Susan Odgers**, "Whose Writing Workshop is it Anyway?"

Earlier in the day, NMC was awarded this year's Institutional Excellence Award (and a check for \$1000!) for Melissa, Michael, and Susan's work with the Homeless Writing Workshop. An added bonus: Stephen Siciliano braced the icy roads from TC to Grand Rapids, arriving in time to join the lunch-time award presentation.

NMC's Nancy Parshall, who in recent years has served as both an officer and president has taken the LAND Conference to new heights. Her visionary thinking and steadfast leadership have helped birth LAND's invigorating "lightening talks" format. Many thanks, Nancy, for your many years of service and dedication!

In addition to yesterday's Lightning Talk winners, LAND awarded NMC student (and WRC reader) **Kristy Groth** second place in the fiction category for her short story "Bank Shot." Congratulations to Kristy and her Creative Writing instructor, **Teresa Scollon!** (SD1, SD3)

- On Sunday, February 15, six NMC choral music groups performed at Lars Hocksted Auditorium. It was great to see community members ranging in age from elementary school to retirees sharing their passion for music. Thank you to Jeff Cobb, the other conductors, administrative managers, and volunteers for a great example of lifetime learning! (SD3, SD4)

Activities of Note: Tim

- We've been holding a series of Open Listening Sessions that have been facilitated by the vice presidents. These sessions have been well attended and with good participation asking questions and discussing the various topics brought up during the sessions. Thank you all who have participated. The vice presidents look forward to any feedback provided on these sessions.
- The evening of January 24, Nancy and I attended the Dennon Museum Center opening reception for the new exhibits that will be on display through May 17, 2015. The exhibits include HWEH – GEEH Returning Again an installation by Jinwon Chang, Jae Yong Kim: Lusting After Donuts, ReTooled: Highlights from the Hechinger Collection, and Michigan Ceramic Artists Exhibition 2014.
- I attended the MCCA Legislative Summit in Lansing on January 29 and also met with six state legislators individually while there. I address some of what was discussed under Legislative Issues below.
- The evening of January 30 I stopped by the Hagerty Center staff holiday party that had been postponed due to severe weather when previously scheduled. We provided a separate holiday party for this group as they work during the NMC employee holiday party held at the Hagerty Center.

- Elaine Wood, Doug Luciani and I continue to have regular breakfast meetings to touch base on common initiatives. We met on February 3 and discussed the new Prosperity Zone classifications and economic development issues within the region.
- At noon on February 3, Kennard, Ross and I attended a luncheon reception for Mark Barker, President of Interlake Steamship Company, and Glenn Kolke, Marine Personnel Manager, who gave an informational presentation to Cadets later that afternoon.
- I met with representatives of Grand Traverse County Planning Department on February 4 to discuss potential support for the creation of an economic development strategy for GT County.

Legislative Issues

- The Governor has issued his executive budget that includes his funding requests and priorities for the coming year. Attached is a summary of the Community College section. There is continued support for community college activities with a particular tilt toward workforce talent preparation. His capital outlay recommendations identify two planning grants and did not include NMC. We will continue to work with the JCOS to secure funding. Remember that the House and Senate now go to work to craft their budget recommendations that may, or may not, be in agreement with the Governor's.
- The Business Leaders of Michigan (BLM) have issued their report on "How Higher Education can Help Michigan Become a Top Ten State:.". Among their recommendations are strengthening performance based funding for community colleges. This is an influential group of leaders that have been successful in influencing state policy. The report and summary are attached.
- For other issues we are addressing, please see the attached MCCA update.

Miscellaneous

- A team of 8 from NMC will be participating in a Strategy Forum as part of our HLC AQIP accreditation process. The team will be focusing on two targets for change during this intensive workshop—expanding community awareness and engagement and the shared governance process. By the end of the meeting we are required to have a work plan that will lead to identification of our next AQIP project. Thank you in advance for the team's work on this issue.

*Attachments: Lloyds List Submission for GLMA Faculty
Summary of Governor's Community College Budget
MCCA Monthly Update
Business Leaders for Michigan (BLM) Press Release
BLM Report
Dates of Note*

The Great Lakes Maritime Academy (GLMA), a division of Northwestern Michigan College was established in 1969. Since that time it has grown from an institution that only offered its deck cadets a license valid for service on the Great Lakes and an Associate's Degree, to one where both deck and engine cadets earn unlimited licenses, with STCW endorsements, and a bachelor's degree. Among the seven maritime academies in the U.S., GLMA and the U.S. Merchant Marine Academy are unique in that all cadets are on a license track; every GLMA cadet must pass his/ her unlimited tonnage (or horsepower) license exam in order to graduate. GLMA further stipulates that every engine cadet must pass license exam modules for both steam and diesel engine plants. All GLMA deck cadets must complete a comprehensive 24 module pilotage exam in addition to, and directly after completion of their 4 day unlimited tonnage, oceans mates exam. GLMA is less than half the size of the second smallest academy, but we believe it graduates more pilots than the other seven academies combined. The dedicated faculty of GLMA is what makes all of this possible. The entire faculty is stellar. However, included among the faculty are two individuals who began their career as instructors on the same day, in 1979; Mr. Bob Mason and Mr. Michael Hochscheidt.

While the pilotage exams seem especially arduous, and they are, the common refrain heard by cadets who are worried about the pilotage exam is "if you pass Mr. Mason's classes you will pass pilotage." Bob Mason's dedication to his craft and his ability to instill the value of attention to detail to the cadets is the principle reason why every GLMA cadet who sits for his/ her pilotage, passes their exams. More importantly Mr. Mason is the reason why every GLMA deck graduate is ready to stand watch immediately after graduation, as an officer, on the bridge of any United States flag merchant vessel. Whether he/ she is sailing on the oceans or the Great Lakes.

In January 2013 nineteen engineering cadets took the required third assistant engineer exams. Eighteen cadets passed every module (seven) on their first attempt, one had two retakes. The cadet who had two retakes passed them on his first attempt. In other words: there were 131 engineering modules taken, and 129 passed, a 98.5% pass rate. In January 2014, 15 cadets tested; only 6 modules of 105 resulted in a non-passing grade; a 94% passing rate. These numbers are stellar and give the true picture of Mr. Hochscheidt's dedication to the development of Merchant Marine Officers.

For their hard work, exceptionally calm demeanor, uncompromising professionalism, and most of all their legacy of developing world class Merchant Marine Officers, I believe that the faculty of the Great Lakes Maritime Academy is deserving of the Lloyd's List Award in the category of "Training Award".

The Great Lakes Maritime Academy (GLMA) has grown from a regional focus, to one where cadets earn a degree, and a license with STCW. GLMA still requires cadets pass 24 pilotage exams, or both steam and diesel endorsements. The efforts of the faculty ensure that 100% of cadets accomplish this.

Community Colleges

A key component of Michigan's education system, Michigan's 28 community colleges provide over 411,700 students with affordable access to postsecondary education opportunities. These institutions are integral to attaining the governor's goal of ensuring that at least 60 percent of Michigan residents have high-quality skills training, a degree or other credential by 2025. *The governor's proposed budget for fiscal year 2016 recommends total funding of \$393.8 million, of which \$137.1 million is general fund. The recommendation for fiscal year 2017 is \$400.7 million, of which \$137.1 million is general fund.*

Highlights of Governor's Budget Recommendation

- Community colleges receive an increase of 8 percent in total funding over fiscal year 2015. Since fiscal year 2011, combined operations and retirement funding for community colleges has increased by \$86.8 million, an increase of almost 30 percent.
- This proposed budget includes a 1.4 percent inflationary increase of \$4.3 million in community college operations funding, which brings total operations funding to \$311.5 million. The increase is distributed through a modified version of the existing funding formula, providing long-term planning stability to community colleges. The formula distributes half of new funding as an across-the-board increase. The other half of new funding is distributed based on the following performance metrics: weighted degree and certificate completions, enrollment, and administrative costs as a percentage of core expenditures. In order to receive this additional funding, community colleges will be required to participate in the Michigan Transfer Wizard, making it easier for students to transfer credits among Michigan institutions.

| FY 2016 Community Colleges Funding (\$ in thousands) | | | |
|---|--------------------|------------------|------------------|
| Community College | Operations | Perform. Funding | Percent Increase |
| Alpena | \$5,390.7 | \$71.3 | 1.3% |
| Bay de Noc | 5,419.5 | 68.8 | 1.3% |
| Delta | 14,498.9 | 207.8 | 1.4% |
| Glen Oaks | 2,516.1 | 37.3 | 1.5% |
| Gogebic | 4,451.4 | 55.0 | 1.2% |
| Grand Rapids | 17,947.5 | 229.1 | 1.3% |
| Henry Ford | 21,623.8 | 252.9 | 1.2% |
| Jackson | 12,087.3 | 155.2 | 1.3% |
| Kalamazoo Valley | 12,503.1 | 191.8 | 1.5% |
| Kellogg | 9,813.5 | 133.8 | 1.4% |
| Kirtland | 3,167.7 | 56.6 | 1.8% |
| Lake Michigan | 5,342.9 | 71.9 | 1.3% |
| Lansing | 30,877.6 | 412.3 | 1.3% |
| Macomb | 32,816.6 | 405.8 | 1.2% |
| Mid Michigan | 4,682.0 | 79.5 | 1.7% |
| Monroe County | 4,492.9 | 72.2 | 1.6% |
| Montcalm | 3,226.7 | 55.1 | 1.7% |
| Mott | 15,686.1 | 214.8 | 1.4% |
| Muskegon | 8,901.0 | 112.8 | 1.3% |
| North Central MI | 3,172.4 | 50.9 | 1.6% |
| Northwestern MI | 9,078.8 | 116.3 | 1.3% |
| Oakland | 21,123.3 | 307.5 | 1.5% |
| Schoolcraft | 12,513.7 | 202.4 | 1.6% |
| Southwestern MI | 6,576.4 | 76.6 | 1.2% |
| St. Clair | 7,061.6 | 93.0 | 1.3% |
| Washtenaw | 13,077.3 | 252.7 | 1.9% |
| Wayne County | 16,727.6 | 287.3 | 1.7% |
| West Shore | 2,414.9 | 30.0 | 1.2% |
| Total: | \$307,191.3 | \$4,300.7 | 1.4% |

- Funding for Independent Part-Time Student Grants is recommended at \$6 million, representing the first time since fiscal year 2009 that the program has been funded. This student financial aid program, based on financial need, targets part-time adult students at community colleges. The governor encourages community colleges to use this funding to re-enroll former students who may have dropped out without earning a degree or other credential.
- As part of recent reforms in the Michigan Public School Employees Retirement System, the community college contribution rate for unfunded accrued liabilities is capped at the fiscal year 2012 level. The state pays the amount over the cap. The budget increases the state's payments for retirement liabilities by \$17.2 million, bringing the total state support for the community colleges' retirement obligations to \$71.2 million in fiscal year 2016. The fiscal year 2017 budget assumes an additional increase of \$6.9 million, for a total of \$78.1 million.
- The budget increases funding for Renaissance Zone reimbursements by \$1.6 million to a total of \$5.1 million to continue making statutorily-required payments at the full amount.
- State Building Authority rent payments of \$29.5 million, all general fund, support debt service for recently constructed community college building projects.

[illegible]



MCCA MONTHLY UPDATE TO BOARDS OF TRUSTEES

[Report #019 February 04, 2015]

STATE LEGISLATIVE HIGHLIGHTS

MCCA Lansing Legislative Summit: Many thanks to all of you that braved the icy roads to join us for the 2015 MCCA Lansing Legislative Summit on January 29. See [article on MLive on Governor Snyder's keynote address](#). We had an excellent turnout and heard good reports from many of your meetings. For those colleges unable to join us, we hope that you will find the opportunity to meet with your legislators closer to campus and share our [community college legislative priorities](#).

Michigan New Jobs Training Program: Senators Booher, Pavlov, and MacGregor introduced three bills that incorporate our desired changes to the MNJTP: (1) adjusting the \$50 million cap; (2) eliminating the 2018 sunset; and (3) including clarifying language to grandfather-in existing MNJTP contracts that have new jobs below the new minimum wage threshold. [Senate Bills 69 – 71](#) were referred to the Education Committee, where we expect them to see action quickly.

Concurrent Enrollment Regulations: Senators Booher and Hansen re-introduced three bills, now [Senate Bills 36-38](#), that would set parameters for college courses offered in a high school setting (concurrent enrollment). The bills would also set restrictions regarding what factors a college or university should take into account in setting tuition for such courses, and state legislative intent that tuition should not exceed the in-district tuition rate.

Tentative Budget Presentation: MCCA staff has learned that the Governor is likely to present his Executive Budget recommendations on Wednesday, February 11. While budget projections have fallen below the levels estimated last May, the Governor has made a [number of positive comments](#) about his desire to continue investing in skilled trades, rather than simply instituting across the board cuts.

2015 Michigan Governor's Economic and Education Summits: The two Summits are being combined into a single 2 day event, March 2 - 3, 2015 at the Marriott Detroit at the Renaissance Center. Career Technical Education (CTE) is the focus of the 2015 event. Click [here](#) for more information, and [here](#) to register.

MCCA Legislative Priorities: Please click [here](#) to view MCCA's 2015 Legislative Priorities.

Bills to Watch: A quick reference of all the bills relevant to community colleges introduced in the 2015 Legislative Session is available on the [MCCA website](#).

FEDERAL LEGISLATIVE HIGHLIGHTS

President Obama Releases FY 2016 Budget Recommendation: The [proposed budget](#) would maintain funding or provide small increases for many programs of interest to community colleges, but it would create a few new ones, such as a \$60.3 billion investment in the America's College Promise (better known as the president's free community college proposal) and a \$200-million job training program.

College Ratings Framework: US Department of Education intends to publish the [college ratings framework](#) by the start of the 2015–16 academic year. The Department is considering applying three rating levels in its selected areas: high-performing, low-performing, and those in the middle. Public comments on the proposal are due by February 17; please e-mail collegefeedback@ed.gov. The [draft ratings](#) include a variety of possible metrics. **What you need to know to respond to the proposed College Ratings System:** AACC has prepared a [document](#) that summarizes and provides comments on the published draft college ratings framework.

Joint Legislative Agenda: AACC and ACCT have released their [Joint Legislative Agenda for the 114th Congress](#). Highlights include Pell Grants, Higher Education Act Reauthorization, Perkins Reauthorization, Data and Ratings, and more.

AACC/ACCT Joint National Legislative Summit: If your college is planning to attend NLS, please join us for the **Michigan Delegation Breakfast** from 7:00am to 8:30am on Wednesday, February 11 in Room Wilson B, on the Mezzanine Level of the Marriott Wardman Park Hotel. If you would like to attend the meetings with Senators Stabenow and Peters on Wednesday afternoon at 3:00, please contact Erin Schor at eschor@mcca.org. For planning purposes, please register your attendance for the breakfast on [the MCCA website](#).

MCCA CENTERS OF EXCELLENCE

MICHIGAN CENTER FOR STUDENT SUCCESS (MCSS)

12 Colleges Submit Letters of Interest for Cohort 1 of the Michigan Guided Pathways Institute: A key component of the next phase of our collective efforts through the MCSS is focused on promoting the development of guided pathways. We received letters of interest from 12 colleges to participate in Cohort 1, and indications from at least 10 other colleges that they plan to pursue this work as part of the second cohort that will begin in early 2016. Cohort 1 will be finalized by mid-February, and the work will begin in earnest later in the month.



CAEL Prior Learning Assessment (PLA) Expert Webinar Series: Throughout Spring 2015, the Michigan Center for Student Success and the Council for Adult and Experiential Learning (CAEL) will present an exciting webinar series about prior learning assessment. We welcome college faculty, staff and administration to attend this series. Information about the webinars on Feb 12, Feb 24, Mar 19, Mar 30, and Apr 9 can be found in this [summary document](#).

MICHIGAN COMMUNITY COLLEGE VIRTUAL LEARNING COLLABORATIVE (MCCVLC)

Michigan Colleges Online (MCO): As we continue to take registrations at the new student website (www.micollegesonline.org) the staff and project developers are involved in final work on the registration system. In particular, a group of Financial Aid administrators have been working this past month on specificity of the financial aid workflows that assist students who use financial aid for their MCO registrations.



MCO Repository Project: The MCO Repository Steering Committee met this past month and began work on strategies for moving the repository project forward including surveying colleges for current open educational resources work, webinars to inform faculty of the opportunities, development of a work group to identify functionality for the repository framework and select an Instructional Designer to manage the project.

MCO Guided Digital Pathway Tool: A web-based academic/career planning tool will enable a student to develop a personalized map for an academic path was showcased in a webinar and a follow-up session provided an opportunity for colleges to ask questions. Five colleges interested in participating in the beta launch in late spring. A recording of the showcase can be viewed [here](#).

MICHIGAN NEW JOBS TRAINING PROGRAM (MNJTP)

MNJTP by the Numbers: Five community colleges are in the process of developing MNJTP agreements. In total, 18 colleges are participating, and 93 employers have been served in 104 MNJTP contracts to date. The number of projected **new jobs supported by existing MNJTP agreements is 12,425.**



CENTER FOR GLOBAL INITIATIVES (CGI)

MSU Center for International Business Faculty Development Opportunity:

Complimentary registrations have been offered for community college faculty to participate in the MSU-CIBER **International Business Institute for Community College Faculty** workshop, being held May 31-June 2 in East Lansing. Full program details are available [here](#). If interested, please have your faculty contact [Adriana Phelan](#) as soon as possible.



“Gateway Michigan”: The MCCA is developing a new initiative under CGI that would partner community colleges and universities to attract international students to Michigan. The focus is on connecting with international students that applied to Michigan’s universities (but were not accepted due to language or other academic issues), and providing the students with ‘conditional admission’ if they attend a community college to address language and academic needs before transferring to the partnering university. Ideally, the international students would take ESL for language proficiency and the general education sequence for transfer.



FOR IMMEDIATE RELEASE
February 12, 2015

Contact: Kelly Chesney
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BLM: Higher Ed Critical to Growing MI's Economy ***Colleges & Universities Well-Positioned to Help MI Become a Top Ten State***

LANSING, Mich.—Michigan's higher education institutions must play a more central role if the state is to achieve an economic transformation, according to a report released today by Business Leaders for Michigan (BLM).

"As our overall economy becomes more knowledge-based, we're seeing a growing demand for both more skilled and highly-educated workers and a greater reliance on higher education to drive innovation," said Doug Rothwell, BLM President & CEO. "Higher education is one of the state's most critical assets for moving Michigan forward. We need to ensure affordability and access, strengthen outcomes and employment transitions, and grow overall economic impact."

BLM's report, which was developed in collaboration with higher education experts from across Michigan and the U.S., as well as business, economic, and public policy leaders, clearly shows a correlation between educational attainment and per capita income.

"Seventy percent of Michigan jobs in 2020 will require some level of education beyond high school," Rothwell said. "Today, only 37 percent of Michigan's working age population has an education beyond high school."

Rothwell said the salaries of Michiganders significantly improve for those that obtain more than a high school education. With some college or an associate's degree, salaries are on average 22 percent higher than those with a high school degree. For those with a bachelor's degree or higher, salaries are on average twice those with only a high school degree.

"If we fail to produce this kind of talent, good jobs will get filled elsewhere and we won't raise personal income levels here at home," Rothwell said.

The report recommends four targeted strategies for strengthening and leveraging the state's higher education sector:

- Bring higher education **access and affordability** to Top Ten levels by boosting higher education funding, strengthening performance-based funding for community colleges, exploring new instructional and administrative efficiencies, and marketing to grow enrollment.

(more)

- Become a Top Ten state for **higher education outcomes** by fully embracing performance-based funding, developing alternative delivery and certification methods, and strengthening partnerships and collaboration.
- Strengthen the **transition from education to employment** by developing structures for matching talent demand with supply, expanding supports for internships and career counseling, and tracking placement and other non-degree outcomes.
- **Grow economic impact** by encouraging higher education to play a greater role in economic development and sharing best practices.

“A voluntary council comprised of business, higher education and state leaders can build on the advantages of Michigan's higher education enterprise and help move the state forward,” said Rothwell. “We call on all stakeholders to form a new public-private partnership to improve collaboration among higher education institutions and interaction with the business community.”

Rothwell said the council's mission should include benchmarking the competitiveness of Michigan's higher education institutions, identifying strategies to accelerate fulfillment of statewide talent needs, maintaining databases of institutional performance and student outcomes and increasing cross-institutional collaboration. Collaboration could include consolidating back-office operations, marketing programs to increase student enrollment and coordinating programs to meet regional workforce development needs.

“By taking these actions—which will be a shared responsibility of the state, the private sector and higher education community alike—we have the potential to change Michigan in profound and exciting ways,” Rothwell said. “We look forward to what the next few years can bring.”

Research for the BLM report was carried out with in-kind assistance from McKinsey & Company. Facts were verified by Anderson Economic Group.

#

About Business Leaders for Michigan:

Business Leaders for Michigan, the state's business roundtable, is dedicated to making Michigan a Top Ten state for jobs, personal income and a healthy economy. The organization is composed exclusively of the chairpersons, chief executive officers, or most senior executives of Michigan's largest companies and universities. Our members drive over 25% of the state's economy, provide over 325,000 direct in Michigan, generate over \$1 trillion in annual revenue and serve nearly one half of all Michigan public university students. Find out more at: www.businessleadersformichigan.com.

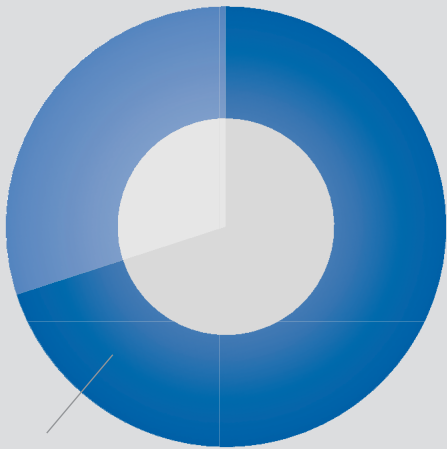
Business Leaders' Insights: How Higher Education Can Help Michigan Become a Top Ten State

February 4, 2015

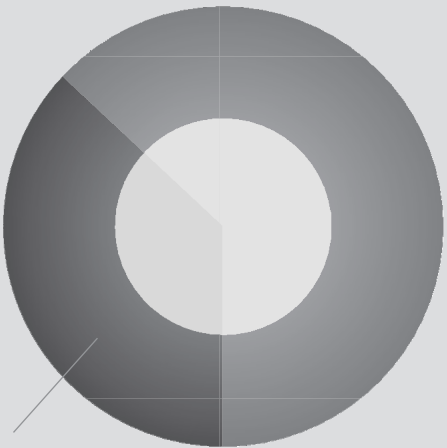


HIGHER ED PAYS OFF:

Drives job & income growth.



70% Michigan jobs requiring an education beyond high school by 2020



37% Michigan workers currently with an education beyond high school

Jobs requiring an Associates+
are growing

2X 
as fast

as jobs requiring no college experience


Four-year degree holders are

70% more
likely
to be employed

than high school graduates

The jobs that pay the most
require more education.

Those with Bachelor degrees
and higher earn

 **100%**
higher
wages

than those with only a high
school diploma

Michigan ranks

31st in educational
attainment in the % of its
working age population with
an Associate's degree+



Higher education has the
potential to boost state
GDP by

\$200
million

40,000

Potential new
jobs could be
created by
growing the
higher education
sector to Top
Ten status



Michigan ranks

36th in

per capita
personal
income



26th in tech
skills

Michigan lags
in the production of degrees
& certificates in technical
skill areas

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Business Leaders for Michigan

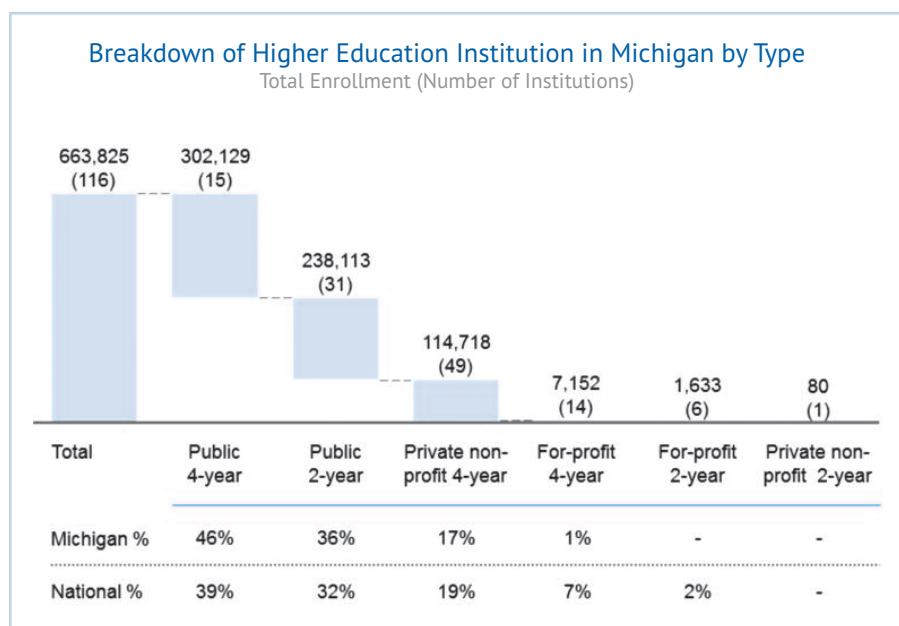
Business Leaders for Michigan (BLM), the state's business roundtable, is dedicated to making Michigan a Top Ten state for jobs, personal income and a healthy economy. The work of Business Leaders for Michigan is guided by the Michigan Turnaround Plan, a holistic, fact-based strategy to achieve the organization's goals. The organization is composed exclusively of the chairpersons, chief executive officers, or most senior executives of Michigan's largest companies and universities. Our members drive over 25 percent of the state's economy, provide over 325,000 direct jobs in Michigan, generate over \$1 trillion in annual revenue and serve nearly half of all Michigan public university students.



Higher Education in Michigan

Michigan has 116 institutions of higher education – enrolling 660,000 students a year and sharing an annual budget of \$15.3 billion (Exhibit 1).¹ Michigan’s public higher education institutions tend to be larger than average and the state is more reliant on public higher education than other states (82 percent Michigan enrollment vs. 71 percent nationally).²

Exhibit 1: Higher Education Institutions in MI—Larger, More Public³



Michigan’s colleges and universities play a vital role in statewide talent development, R&D and economic growth. As engines of learning and innovation, higher education is key to accelerating the creation of more good paying jobs in Michigan.

About this report

This report explores the specific contributions made by Michigan’s higher education sector and discusses the strong and growing need for quality postsecondary options. It builds on recent recommendations for performance-based funding and provides a multi-pronged approach for accelerating the pace toward Top Ten educational attainment.

This report also details how higher education can help create more jobs in Michigan. While not addressed in this report, the success of Michigan’s higher education institutions is significantly impacted by the readiness of students they receive from high schools. Michigan needs to improve the college and career readiness of high school graduates and their transition to college; however, addressing those issues should not delay acting on these recommendations.

¹ NCES Integrated Postsecondary Education Data System (IPEDS). “FY11-12 Total Expenses for Public and Private Institutions.” Washington, DC: National Center for Education Statistics.

² NCES Integrated Postsecondary Education Data System (IPEDS). “2012 Data.” Washington, DC: National Center for Education Statistics.

³ Ibid.

Executive Summary

This report outlines how higher education⁴ can help Michigan become a Top Ten state for jobs, incomes and a healthy economy. Michigan is following national trends as it diversifies toward a knowledge-based economy. This change will require a more educated workforce to drive income and employment growth at a personal level, and economic growth for the state as a whole. Higher education can play a critical role helping Michigan become a Top Ten state by producing talent with the education and skills needed to create better paying jobs and generate greater economic impact.

- **Michigan's economy reflects the national shift toward knowledge and service industries.** While manufacturing plays a larger role in Michigan than in the nation as a whole (about 19 percent of Michigan's GDP versus 12 percent for the U.S.), the economy has been diversifying for decades to reflect the growth of knowledge and service industries.⁵ Even manufacturing jobs increasingly require a higher level of technical skill and expertise than during the previous generation.
- **Employment projections through 2020 forecast significant demand for STEM⁶ and non-STEM as well as well-educated and technically skilled workers.⁷**
 - Seventy percent of Michigan jobs in 2020 will require some level of education beyond high school. Forty-four percent of forecasted jobs will require at least a two-year degree, with three-fourths of these requiring at least a four-year education. Today, Michigan has 37 percent of the working age population with this level of education.
 - There is nearly equal demand for STEM and non-STEM educated workers to fill good jobs through 2020.

70%
Four-year degree holders are 70% more likely to be employed than those with only a high school diploma

37%
Michigan workers currently with an education beyond high school

36th
Michigan's per capita personal income rank

100% higher
Average Michigan wage difference between those with a BA+ and high school graduates

70% less
Average Michigan unemployment rate difference between four-year degree and high school graduates

40,000
Potential new jobs that could be created by growing the higher education sector to Top Ten status

⁴ Higher education, as used throughout this report, refers to all forms of postsecondary education, including non-credential programs, less-than-two-year credentials, two-year degrees, four-year degrees, and graduate and professional education.

⁵ U.S. Bureau of Economic Analysis.

⁶ Science, technology, engineering and mathematics.

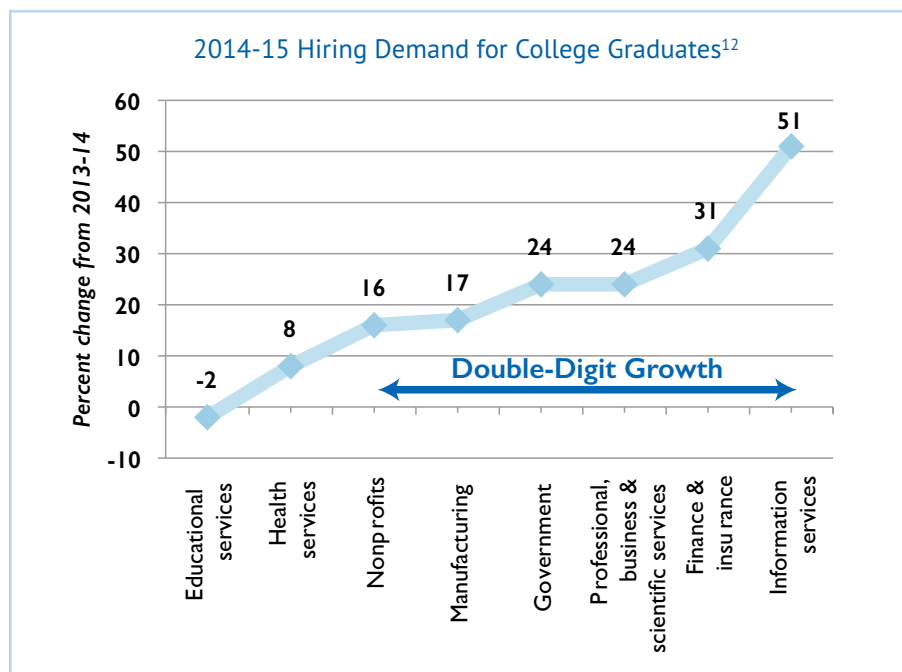
⁷ Center on Education and the Workforce (June 2013). "Recovery: Job Growth and Education Requirements Through 2020." Washington, DC: Georgetown University.

- **The jobs that pay the most—require more education.** The salaries of people in Michigan with bachelor's degrees or greater is, on average, over 100 percent higher than those with just a high school education. Moreover, this population is 70 percent more likely to be employed.⁸
- **Public skepticism about the value of higher education is rising.** Fifty-seven percent of Americans questioned the value of a college education⁹ when 44 percent of recent four-year degree graduates were working at a job that didn't actually require a four-year degree in 2012.¹⁰ While concerns should lessen as the economy improves and the demand for college graduates returns to pre-recession levels, there will continue to be increased demand for greater transparency on the return on investment from a college education (Exhibit 2).¹¹

"For individual Americans, the consequences of not completing postsecondary education are increasingly dire. For many years, the main reason many people went to college was to gain access to better-paying jobs that allowed them to earn more throughout their lives. But earnings potential is no longer the only driver. In this economy, the issue is whether you even have a job."

— Lumina Foundation
2013–2016 Strategic Plan

Exhibit 2: Six Sectors Report Double-Digit Growth in Hiring for Bachelor's Degrees



⁸ U.S. Census Bureau (2015). "5-Year American Community Survey, 2009–2013." Washington, DC: U.S. Census Bureau.

⁹ Taylor, P. et al (May 2011). "Is College Worth It? College Presidents, Public Assess Value, Quality and Mission of Higher Education." Washington, D.C.: Pew Research Center.

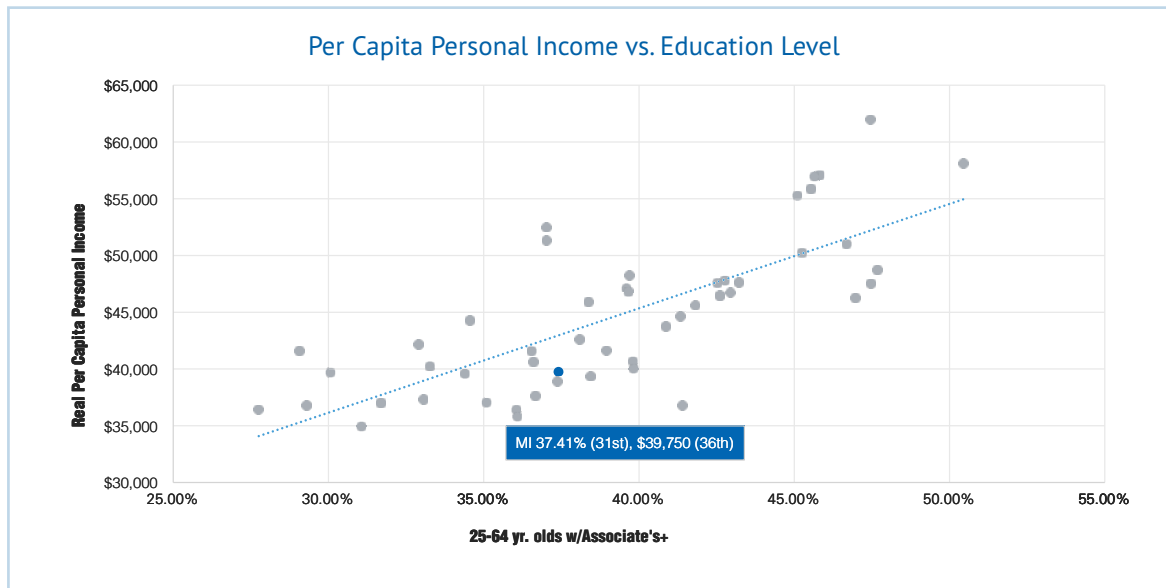
¹⁰ DeSilver, Drew. "5 Facts about Today's College Graduates." Pew Research Center RSS. Pew Research Center, 30 May 2014. Web. 30 Jan. 2015.

¹¹ Michigan State University, College Employment Research Institute, October 2014.

¹² Ibid.

- **The consequence of not producing more educated talent is evidenced by the correlation between Michigan's relatively low education attainment and per capita income rankings.¹³** Seven of the Top Ten states for personal income are also among the Top Ten for educational attainment (Exhibit 3).

Exhibit 3: Educational Attainment Correlates to Higher Incomes¹⁴



- **Despite relatively strong retention of recent in-state college graduates, Michigan will need to increase in- and out-of-state college enrollment to meet projected talent needs.** Michigan will have a smaller talent pool with approximately 100,000 fewer 18–24 year olds by 2025 as the state's population ages.¹⁵ In addition, Michigan's K–12 student enrollment has dropped 11 percent over the last decade and is forecasted to continue declining.¹⁶
- **Rapid economic change and weak employment projections limit the ability to match supply with demand.** Major reasons for the difficulty in better aligning talent skills with employment needs are limited mid- and long-term employment forecasting by the business sector and a rapidly changing economy that is redefining jobs faster than ever before.

¹³ U.S. Census Bureau (2015), *Op. Cit. Analysis by Business Leaders for Michigan*.

¹⁴ *Ibid. Analysis by Business Leaders for Michigan*.

¹⁵ "CGI - State Population Projections to 2030," Michigan Department of Technology, Management & Budget, n.d. Web. 31 Jan. 2015.

¹⁶ Michigan House Fiscal Agency School Aid Background Briefing, Bethany Wicksall, Associate Director, Samuel Christensen, Fiscal Analyst, January 2015.

- **Michigan's current production of educated and skilled talent lags Top Ten states, including overall enrollment, out-of-state enrollment, degrees conferred, critical skills degrees and certificates and educational attainment.** Michigan ranks 26th in production of total degrees and certificates in technical skills areas and ranks 31st in the percentage of its working age population with an associate's degree or higher.¹⁷
- **Higher education is a state asset with the potential to increase state GDP by up to \$200 million and add an additional 40,000 new jobs by 2022.**¹⁸

Key Recommendations:

The overriding conclusion of this report is that Michigan needs to fully embrace higher education as critical to getting and keeping good paying jobs and raising the state's standard of living. Michigan should demonstrate its commitment to becoming a Top Ten state for educated and skilled talent by taking the following actions:

| 1. Bring higher education access and affordability to Top Ten levels. | |
|---|--|
| State Actions | <ul style="list-style-type: none"> • Set an explicit goal of becoming a Top Ten state for college affordability by 2020 and work toward that goal by: <ul style="list-style-type: none"> – Increasing annual higher education appropriations – Exploring other funding methods – Allocating all new annual funding based on reaching performance outcomes |
| College/University Actions | <ul style="list-style-type: none"> • Hold down tuition by exploring new instructional delivery methods, enhancing administrative efficiency and increasing cross-institutional collaboration. • Support a marketing campaign to grow enrollment. |

¹⁷ Business Leaders for Michigan (2014). "Economic Competitiveness Benchmarking Report: Data Supporting the Michigan Turnaround Plan." Detroit, MI: Business Leaders for Michigan.

¹⁸ Business Leaders for Michigan (2014). "Growing a New Michigan: The 2014 Report on Michigan's Progress in Growing Six Opportunities." Detroit, MI: Business Leaders for Michigan.

2. Become a Top Ten state for higher education outcomes.

| | |
|----------------------------|--|
| State Actions | <ul style="list-style-type: none"> • Use performance-based funding to ensure institutions focus on and excel at meeting their core missions. |
| College/University Actions | <ul style="list-style-type: none"> • Increase the availability/use of: <ul style="list-style-type: none"> – Sub-degree certificates – Transferability of credits – Dual credits – College completions • Support rigorous research on new education delivery methods and aggressively implement proven, effective solutions. • Form a new public-private partnership to accelerate collaboration across institutions. |

3. Strengthen the transition from education to employment.

| | |
|----------------------------|---|
| State Actions | <ul style="list-style-type: none"> • Develop regional workforce plans that match talent demand and supply. • Work with colleges and universities and the business community to expand internships, career counseling and credentialing. |
| College/University Actions | <ul style="list-style-type: none"> • Track placement, job provider satisfaction and non-degree outcomes. |

4. Grow economic impact.

| | |
|----------------------------|--|
| State Actions | <ul style="list-style-type: none"> • Encourage higher education to play a greater role in economic development by catalyzing the growth of distinctive assets and clusters of innovation and aggressively attracting federal research projects and funding. |
| College/University Actions | <ul style="list-style-type: none"> • Develop economic development centers of excellence that leverage each institution's greatest potential impact on the local economy and develop the means to share best practices across institutions. |

1. Higher education access and affordability

Michigan needs to fully embrace the fact that the value of postsecondary education is clear and significant. As the U.S. economy increasingly requires a knowledge-based workforce, the return on an investment in higher education (tuition/opportunity costs vs. future earnings and career potential) continues to grow.

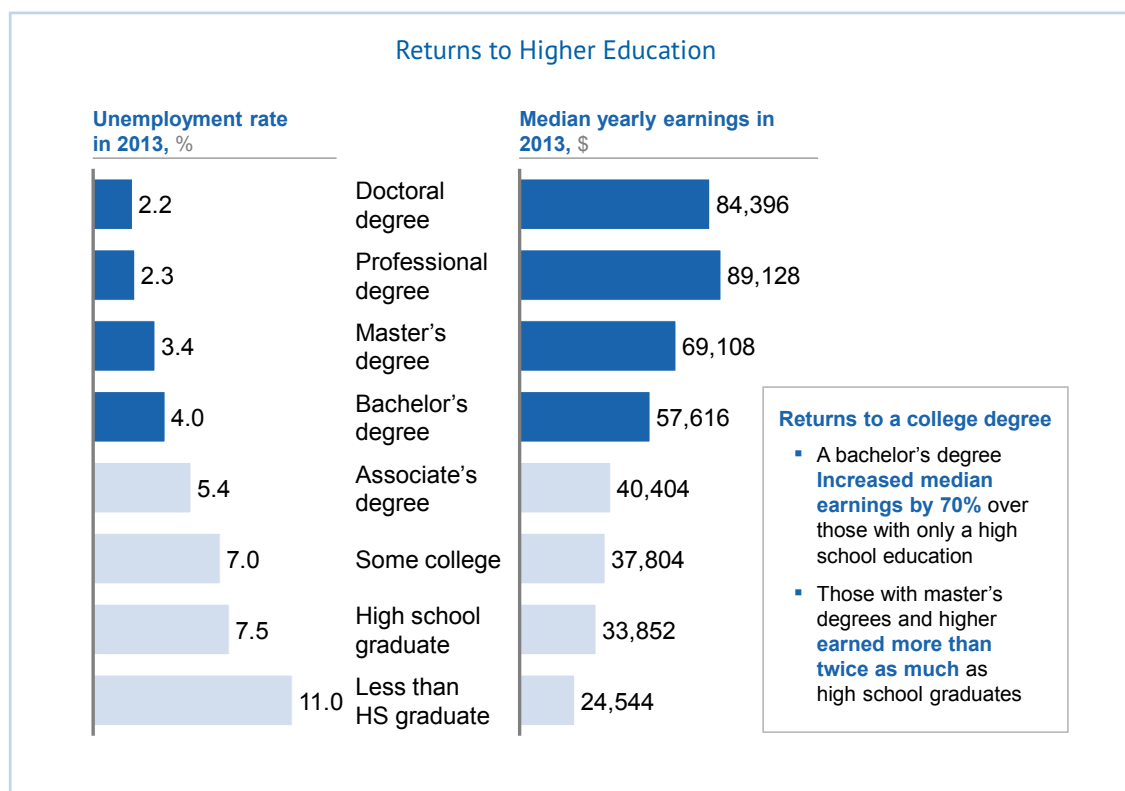
Research shows that Michigan needs significantly more talent with postsecondary credentials and two- and four-year degrees in STEM and non-STEM fields. Meeting this need will require building greater public support for the value of higher education in the face of rising costs and growing public skepticism.

Unfortunately, Michigan's dependence on annual appropriations from its state general fund to support higher education puts the state at a significant disadvantage in meeting future workforce development needs. Rising spending pressures—the result of decaying infrastructure and social programs necessary to assist an aging population—place greater limits on the state budget every year. The value of higher education in Michigan is demonstrable and should be fully supported to achieve greater economic growth.

Key findings:

- **The data are irrefutable that the more education people receive, the more they earn, work, and live more healthful and satisfying lives.**¹⁹ While tuition increases have lowered the return on investment compared with a generation ago, higher education remains one of the best investments most people will ever make.²⁰ The net present value of a bachelor's degree in the U.S. is an estimated \$320,000,²¹ many times the cost of tuition and some 10 times the average debt load held by U.S. students at graduation. In fact, the annual median earnings of people with bachelor's degrees is, on average, 70 percent higher than those with just a high school education and they are 70 percent more likely to be employed (Exhibits 4 & 5).

Exhibit 4: Higher Education Linked to Lower Unemployment and Greater Earnings²²



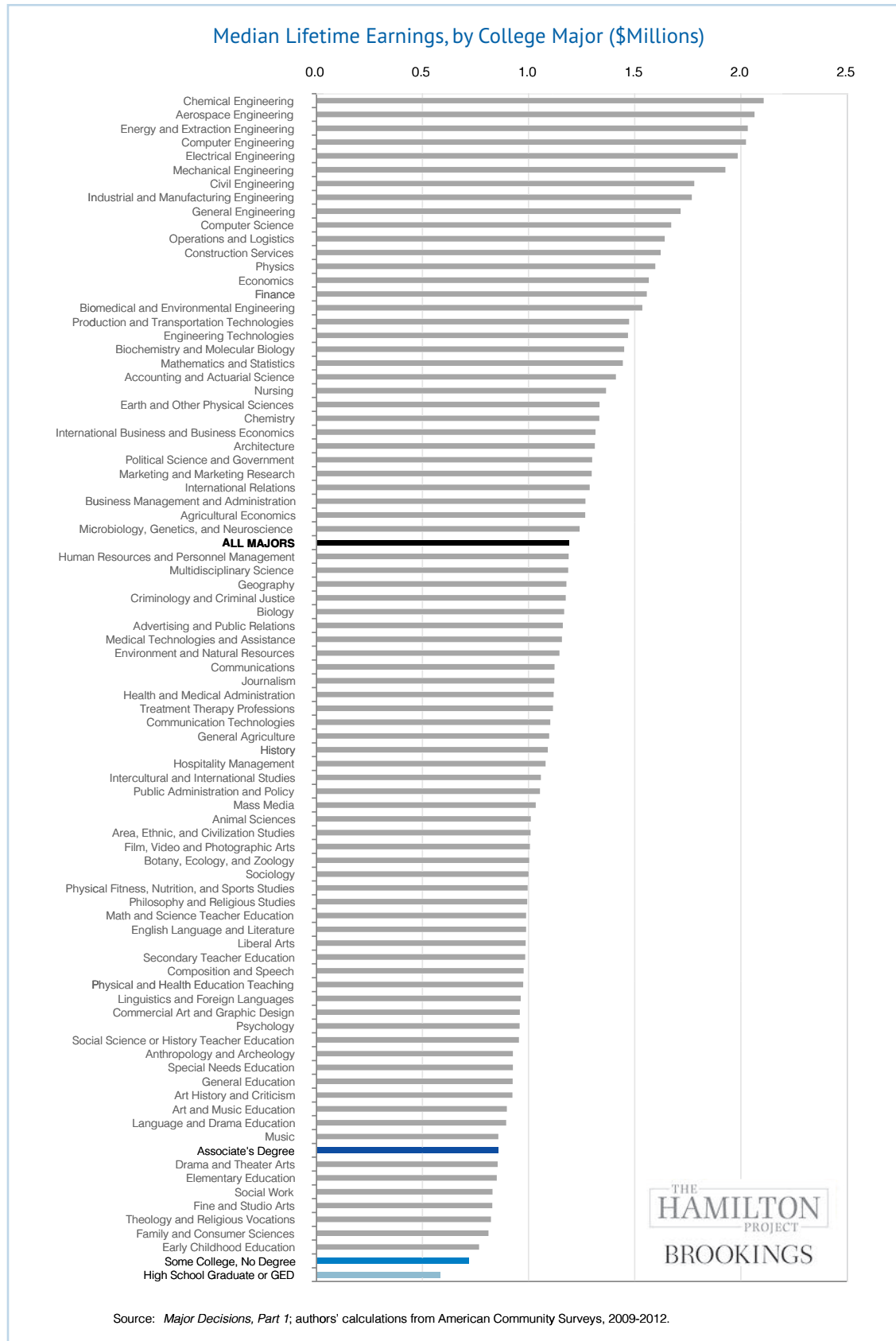
¹⁹ Baum, S.; Ma, J. & Payea, K. (2010). "Education Pays 2010: The Benefits of Higher Education for Individuals and Society." New York, NY: The College Board Advocacy and Policy Center.

²⁰ In aggregate. Pew Research has determined that the return on investment depends on field of study and school; not all combinations have a positive return.

²¹ Organisation for Economic Co-operation and Development (2011). "Education at a Glance, 2011." Paris, France: OECD.

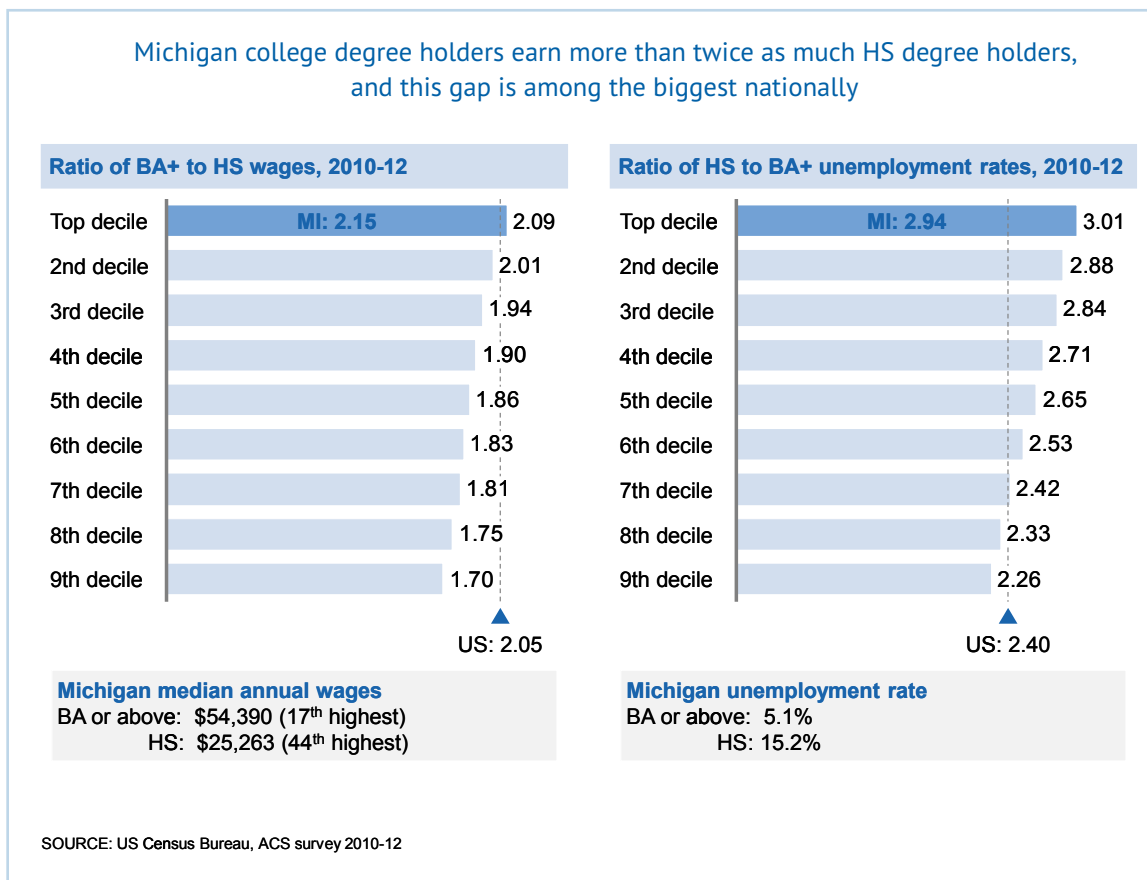
²² Bureau of Labor Statistics, current population survey.

Exhibit 5: College-Educated People Earn More, Regardless of Degree Type



- The wage difference is even greater in Michigan, where people with college degrees earn over 100 percent more than people with just high school diplomas (Exhibit 6). This wage premium is higher than in most (>90 percent) other states, signaling the importance of higher education in Michigan.²³

Exhibit 6: Education Wage Premiums in Michigan



- **Michigan has experienced a greater shift from public to private support for higher education than most states.** While the state has made a significant reinvestment in higher education over the past three years, over the long term there has been an inversion in the roles of public vs. individual funding for public 4-year institutions (Exhibit 7). For 4-year and 2-year institutions, Michigan had the 5th greatest decline in state funding over the past five years (Exhibit 8). While some public research universities have been able to offset a portion of these budget cuts by raising private money, most public universities and community colleges cannot.

²³ U.S. Census Bureau (2015). "5-Year American Community Survey, 2009–2013." Op. Cit. Analysis by Business Leaders for Michigan.

Exhibit 7: Tuition Increases and Appropriation Decreases²⁴

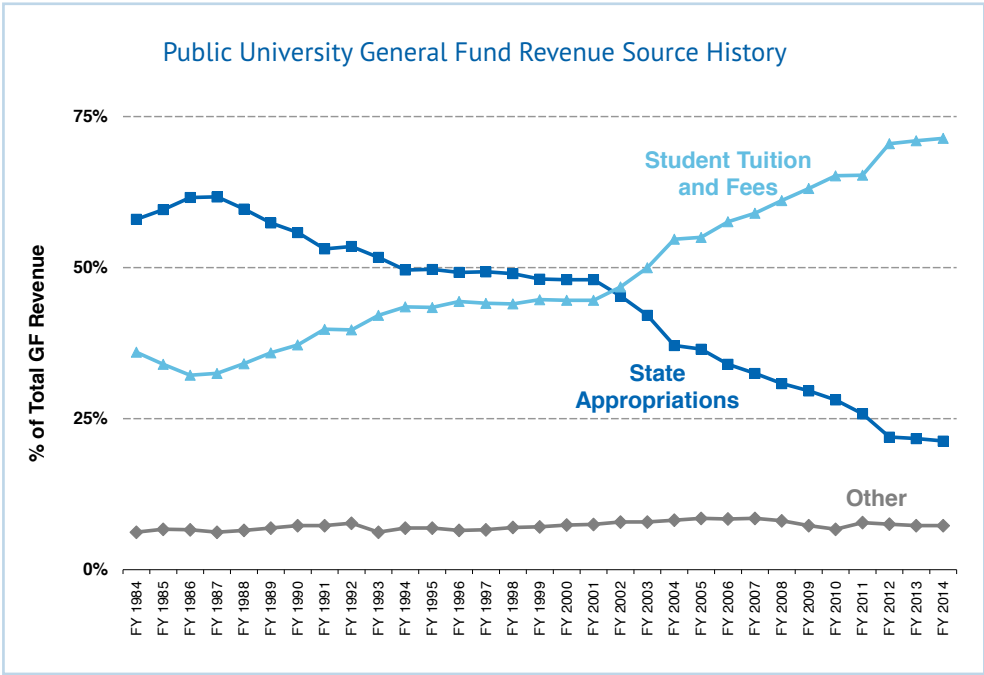
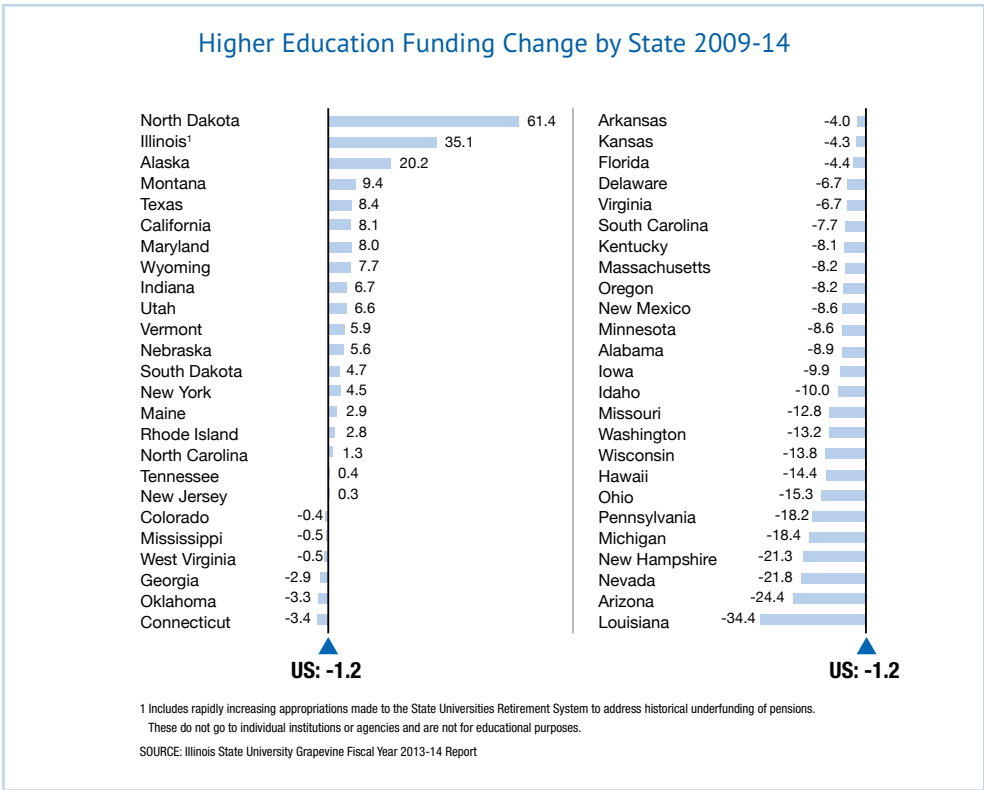


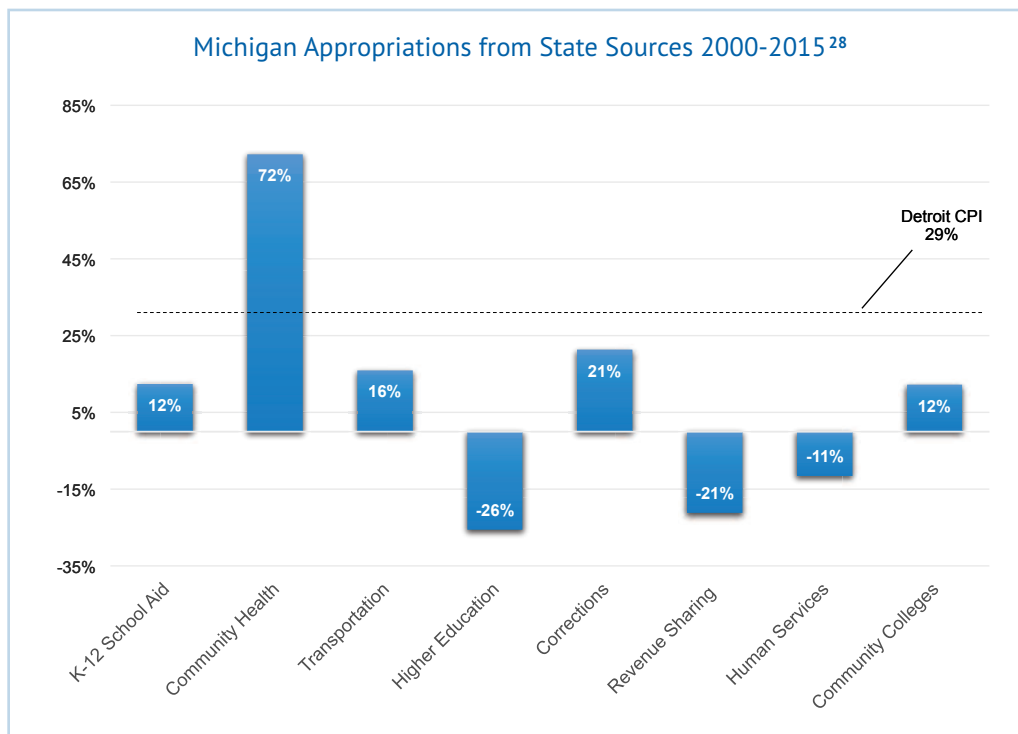
Exhibit 8: MI Has Seen the 5th Largest Decline in State Funding for Higher Education



24 Jen, K. (2013). "Fiscal Focus: State Appropriations, Tuition, and Public University Operating Costs." Lansing, MI: House Fiscal Agency.

- **The result of budget cuts over the past decade is that Michigan now ranks 42nd for state support for 2- and 4-year public institutions and has the 4th least affordable tuition levels in the nation.** Michigan would need to increase total state appropriations for public 2- and 4-year institutions by 50 percent to match Top Ten state level support and by over 100 percent to match Top Ten affordability based on tuition levels.²⁵
- **Student debt in Michigan has increased by 48 percent in the past four years.** While that is below the national average of 54.6 percent, it still results in annual borrowing of \$6,370 per FTES²⁶ at public institutions. This results in total debt upon graduation of approximately \$30,000.²⁷
- **Like most states, Michigan's reliance on annual appropriations to fund public universities makes it difficult to dramatically increase college access and affordability.** States like Michigan are increasing spending on social programs and transportation as the population and infrastructure ages (Exhibit 9). What's more, Michigan spends almost nine times more per year to house a prisoner in its corrections system than it does to underwrite a student's college education (Exhibit 10).

Exhibit 9: Public University Appropriations Dropping in MI



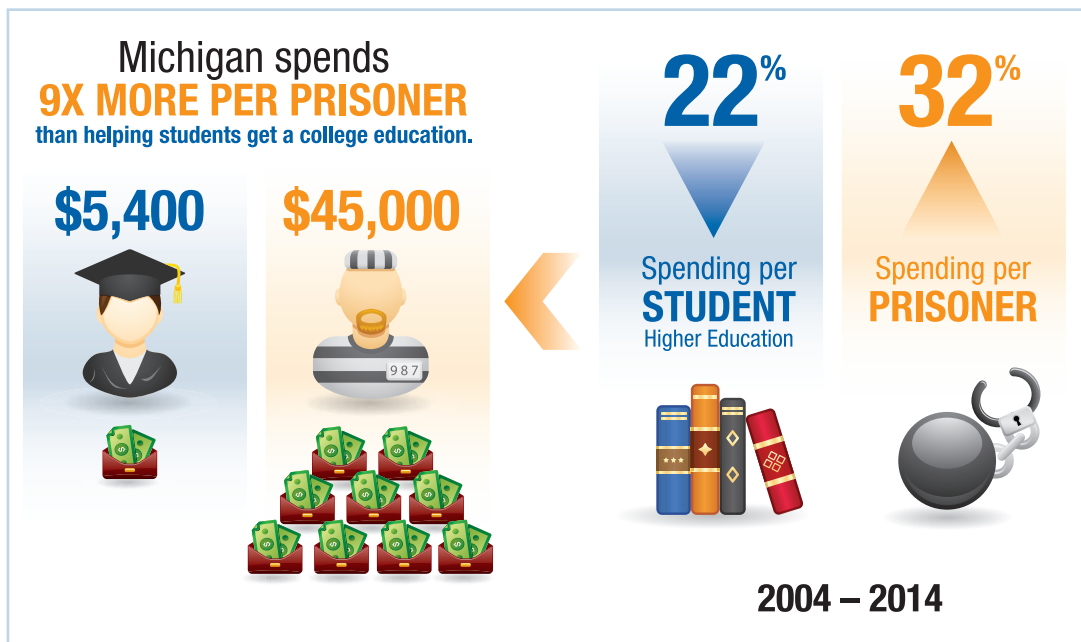
²⁵ State Higher Education Executive Officers (2014). "State Higher Education Finance 2013." Boulder, CO: SHEEO. Analysis by Business Leaders for Michigan.

²⁶ Full Time Equivalent Student.

²⁷ Baylor, E. (2014). "State Disinvestment in Higher Education Has Led to an Explosion of Student-Loan Debt." Washington, DC: Center for American Progress.

²⁸ Senate Fiscal Agency. Analysis by Business Leaders for Michigan.

Exhibit 10: Funding for Public Universities vs. Corrections in MI²⁹



- **The shift from public taxpayer funding to tuition (and the resulting increase in student debt) is a major cause behind lower public confidence in the value of higher education.** Thirty-one states have cut funding for higher education.³⁰ This has accelerated a decade-long shift from colleges being funded as a public to a private good. The result is that average tuition has increased by approximately 40 percent in real terms over the last 10 years³¹ and, along with easy access to student loans, has contributed to \$1.2 trillion in outstanding student debt.³² In this context it is not surprising that 77 percent of Americans do not think higher education is affordable for all of those who need or want it.³³
- **Recent public skepticism, combined with Michigan's historic ability to create good jobs for those with only a high school education, can discourage young people from getting the education they need. Further, these perceptions act as a barrier to attracting educated talent to Michigan.** BLM opinion surveys show that only recently have Michigan citizens ranked higher education as an important funding priority. Further, Michigan ranked 50th in 2012 for attracting residents with at least a four-year degree.³⁴

²⁹ Ibid. Analysis by Business Leaders for Michigan.

³⁰ Palmer, J. ed. (2014). "Grapevine Fiscal Year 2013-14 Report." Normal, IL: Illinois State University. Analysis by Business Leaders for Michigan.

³¹ National Center for Education Statistics (2013). "Digest of Education Statistics, 2012." Washington, DC: U.S. Department of Education.

³² Consumer Financial Protection Bureau. Figures estimated as of May 2013.

³³ Gallup & Lumina Foundation (2014). "What America Needs to Know About Higher Education Redesign." Washington, DC: Gallup, Inc.

³⁴ "CGI Migration Patterns by Level of Education: Michigan, 2000-2012." Michigan Department of Technology, Management & Budget, n.d. Web. 31 Jan. 2015.

- **Example: Out-of-state enrollment in Michigan's institutions of higher education is significantly lower than most other states, especially Michigan's neighbors.** For example, at four-year undergraduate institutions in Michigan, only 14 percent of students come from out-of-state, compared with 29 percent in Minnesota, 26 percent in Wisconsin, and 34 percent in Illinois.³⁷ Further, the population of college-age students in Michigan is expected to drop 10 percent over the next nine years.³⁸ Unchecked, this combination of under-attracting educated talent and losing student population will put pressure on the state's institutions of higher education (e.g., enrollment and fiscal sustainability) and on the state's economy.
- **Example: Enrollment and attainment at Michigan higher education institutions is below average.** Overall, 28 percent of Michiganders between the ages of 25 and 34 have a bachelor's degree or better, which is lower than the U.S. average of 31 percent. Further, Michigan's white young adults have an attainment rate of 36 percent versus only 24 percent of black adults in this age group. Unfortunately, this gap is not likely to close in the near future, given current enrollment rates and various other issues including affordability.
- **Tuition pricing and financing has become more complex for parents and students to understand.** This contributes to lower public confidence in higher education and discourages higher rates of student enrollment and degree attainment. Easily navigable data portals that explain the full cost of a college education and new financing methods are needed to address this issue.

³⁵ U.S. Census Bureau (2011). "American Community Survey, 2008–2010." U.S. Census Bureau (2012). "Current Population Survey." Washington, DC: U.S. Census Bureau.; NCES Integrated Postsecondary Education Data System (IPEDS). Op. Cit. "2012 Data." Analysis by Business Leaders for Michigan.

³⁶ NCES Integrated Postsecondary Education Data System (IPEDS). Op. Cit. "2012 Data." Analysis by Business Leaders for Michigan.

³⁷ NCES Integrated Postsecondary Education Data System (IPEDS). "2010 Data." Washington, DC: National Center for Education Statistics.

³⁸ U.S. Census Bureau (2000). "2005 Interim State Population Projections." Washington, DC: U.S. Census Bureau. Analysis by Business Leaders for Michigan.

Potential strategies:

Fully embracing and supporting the value of higher education should be a readily addressable goal for a state like Michigan, where there is overwhelming evidence of both the need for and payoff from such an education. One approach to achieving a positive outcome is how the “Pure Michigan” campaign raised awareness and positive support of Michigan as a destination for tourism and business—securing \$1.2 billion in visitor spending.³⁹ This sort of success might be used to inspire ideas for growing in-state enrollment and attracting more out-of-state and international students to Michigan.

Michigan might also consider the success that other states have seen in recruiting out-of-state and international students. A fifth of the freshmen at the University of California (UC) in fall 2014 were non-residents, thanks to greater focus by admissions departments on non-resident recruiting. This shift, according to UC admissions officers, will diversify perspectives on campus and help subsidize costs for in-state students (e.g., non-residents pay additional tuition of \$22,878 a year).⁴⁰ Other universities have similar plans. The University of Colorado-Boulder is recruiting overseas for the first time, and the Universities of Alabama and Texas have stationed recruiters far out of state.⁴¹

³⁹ *Michigan.org*, 2014

⁴⁰ Koseff, A. (August 2014). “University of California Steps Up Out-of-State Recruiting.” *Sacramento, CA: Sacramento Bee*.

⁴¹ Kingade, T. (September 2012). “Public Universities Increase Out-Of-State Student Enrollments to Fill Budget Gaps.” *New York, NY: The Huffington Post*.

Recommendations:

| Bring higher education access and affordability to Top Ten levels | |
|---|---|
| State Actions | <ul style="list-style-type: none"> • Set an explicit goal of becoming a Top Ten state for college affordability by 2020 and work toward that goal by: <ul style="list-style-type: none"> – Increasing annual public college and university appropriations – Exploring other funding methods – Allocating all new annual funding based on institutional performance compared to national peers <p>In 2014, Michigan would have needed to provide an additional \$800 million in state support to reach Top Ten funding levels and an additional \$1.8 billion to reach Top Ten states for lowest tuition levels (assuming a dollar drop in tuition for every additional dollar in state support).⁴²</p> |
| College/University Actions | <ul style="list-style-type: none"> • Hold down tuition by exploring new delivery methods, becoming administratively more efficient and increasing cross-institutional collaboration. • Explain tuition pricing more clearly and expand financial aid options to ensure that students can afford a higher education regardless of financial means. This might include institutions collaborating to develop a uniform, interactive pricing section on their web sites; standardizing the “offer letter” they send to students outlining the full cost of attendance over two or four years; and developing repayment plans that fluctuate with future earnings or payment plans that start before entering college and extend through post-graduation. |
| Collaborative Actions | <p>The state, universities and colleges should:</p> <ul style="list-style-type: none"> • Support a marketing campaign to grow enrollment. The state and its higher education institutions should collaborate to communicate the value of earning a higher education degree to prospective in-state students and their families, and promote Michigan as a college destination to grow out-of-state and international enrollment to the national average of peer institutions. • Continue to increase at-risk student enrollment and graduation rates. Including Pell Grant enrollment in Michigan’s performance-based funding system is a meaningful way of ensuring at-risk students are served. Stronger marketing efforts and new financial aid and repayment programs (described above) focused on at-risk students should also be encouraged. |

⁴² NCES Integrated Postsecondary Education Data System (IPEDS). “2010 Data.” Washington, DC: National Center for Education Statistics.

2. Higher education outcomes

Stronger public support and funding alone will not fully leverage the potential of higher education to achieve greater economic growth. Michigan should encourage higher education institutions to fulfill distinct roles while discouraging them from replicating programs and services that dilute focus and add cost. New delivery methods that embrace best practices, more effective use of community colleges, and greater collaboration across Michigan's public and private colleges and universities will be necessary to realize the power of higher education to accelerate growth.

For example, community colleges play an essential and increasingly important role in Michigan's higher education system. Community colleges give students an affordable and flexible opportunity to earn a two-year associate's degree and acquire vocational skills. Many students use community colleges as a launching pad, transferring to another institution to complete their higher education. Community colleges also serve the student populations that may have the greatest needs—part-time students balancing education with a full-time job or full-time family commitments and students requiring remedial support in math and reading to become college-ready. Community colleges are also at the forefront of adult learning and skills retraining—both vital to an economy like Michigan's that has been buffeted by industrial transition over the last few decades. Michigan's community colleges play an essential role by providing an on-ramp to postsecondary education and skills training to help people advance in their careers.

Key findings:

- Thirty states are using or transitioning to performance-based funding to improve higher education outcomes.**⁴³ Michigan has adopted one of the stronger performance-based funding systems for universities because it is based on a national database and compares institutions to their national peers. While a performance-based funding system is in place for community colleges, the metrics are not currently compared to national peers. Michigan bases about two percent of university funding and two percent of community college funding on performance. Most states base between five and 25 percent of state funding on performance. Further, while state support for student scholarships at private colleges has been reduced, there are no outcome metrics used to account for these appropriations.
- Digital and distance learning methods are being used to improve student outcomes at a lower cost, although the research demonstrating such results is as yet unclear.** One-third of higher education students across the country now take at least one course online and the past few years have seen innovation in the form of Massive Open Online Courses (MOOCs) and derivatives (e.g., Small Private Online Courses).⁴⁴ Similarly, a substantial amount of distance learning is occurring at Michigan higher education institutions (18 percent of students at Michigan four-year universities vs. 31 percent of students at Michigan two-year colleges have enrolled in at least one online course).⁴⁵ But without greater rigor and measurement, the potential to improve learning outcomes from using these learning methods may not be reached.
- Students have more choices.** The number of higher education institutions has grown by 19 percent in the last 10 years nationally, and Michigan has seen a growth of 17 percent with 17 new institutions opening between 2004 and 2013.⁴⁶ Combined with the growth of digital learning options, students have more choice in what, where and how they study than ever before.
- The distinction in roles between and among universities and colleges is becoming less clear.** While universities and colleges share common goals of educating talent and serving their communities, each institution was designed to accomplish this work in different ways (e.g., research-centric universities, education-centric regional universities and workforce-centric community colleges). For many years, colleges and universities across the country have been striving to be everything to everyone. But trying to excel at every aspect of teaching, research, job training, and community integration is a recipe for being only moderately good at each one. To be sustainable in the future, institutions should focus on meeting their unique missions and strive to be leaders in their chosen areas of practice while having the flexibility to adapt to changing conditions through partnerships.

⁴³ National Conference of State Legislatures (2015). "Performance-Based Funding for Higher Education." Web. 31 Jan. 2015.

⁴⁴ Allen, I.E. & Seaman, J. (2013). "Changing Course: Ten Years of Tracking Online Education in the United States." Babson Park, MA: Babson Survey Research Group and Quahog Research Group, LLC. Analysis by Business Leaders for Michigan.

⁴⁵ NCES Integrated Postsecondary Education Data System (IPEDS). Op. Cit. "2012 Data."

⁴⁶ Ibid.

- **Michigan's four-year institutions are more administratively efficient than those in other states.** For example, Michigan universities spent 30 percent less on administrative expenses (institutional support) in 2013 and held the increase in these expenses nearly 50 percent below universities in Michigan's peer states from 2002 to 2013 (Exhibit 11).⁴⁷ However, even greater administrative efficiency will be needed to increase student access and affordability.

Exhibit 11: Michigan University Administrative Expenses vs. Peer States

Comparison of Michigan's Administrative Expenditures Per Pupil with Peer States, FY 2002-2013 (Real 2014 U.S. Dollars)

| FY | Michigan Institutional Expenditures per Pupil | Peer State Average Institutional Expenditures per Pupil |
|-------------------------|---|---|
| 2002 | \$ 1,860 | \$ 2,303 |
| 2003 | \$ 1,836 | \$ 2,254 |
| 2004 | \$ 1,697 | \$ 2,226 |
| 2005 | \$ 1,705 | \$ 2,088 |
| 2006 | \$ 1,808 | \$ 2,094 |
| 2007 | \$ 1,846 | \$ 2,130 |
| 2008 | \$ 2,003 | \$ 2,550 |
| 2009 | \$ 2,100 | \$ 2,601 |
| 2010 | \$ 2,010 | \$ 2,537 |
| 2011 | \$ 1,956 | \$ 2,703 |
| 2012 | \$ 1,953 | \$ 2,457 |
| 2013 | \$ 2,019 | \$ 2,669 |
| Change 2002-2013 | \$ 159 | \$ 366 |
| % Change | 9% | 16% |

Note: Institutional support expenditures do not include operation and maintenance of plant, depreciation, and interest.

Peer states include: California, Illinois, North Carolina, Texas, and Virginia.

Source: AEG analysis of data sourced from the Integrated Postsecondary Education Data System and Bureau of Labor Statistics - Consumer Price Index

- **Michigan's four-year universities generally achieve student outcomes equal to or better than their peer universities, but receive less in state support.** Michigan's four-year public schools have a graduation rate of 60 percent overall vs. a national average of 55 percent weighted for the size of the institution. Yet they receive less state funding than the national average, receiving only \$4700 per FTES⁴⁸ vs. an average of \$7500.⁴⁹

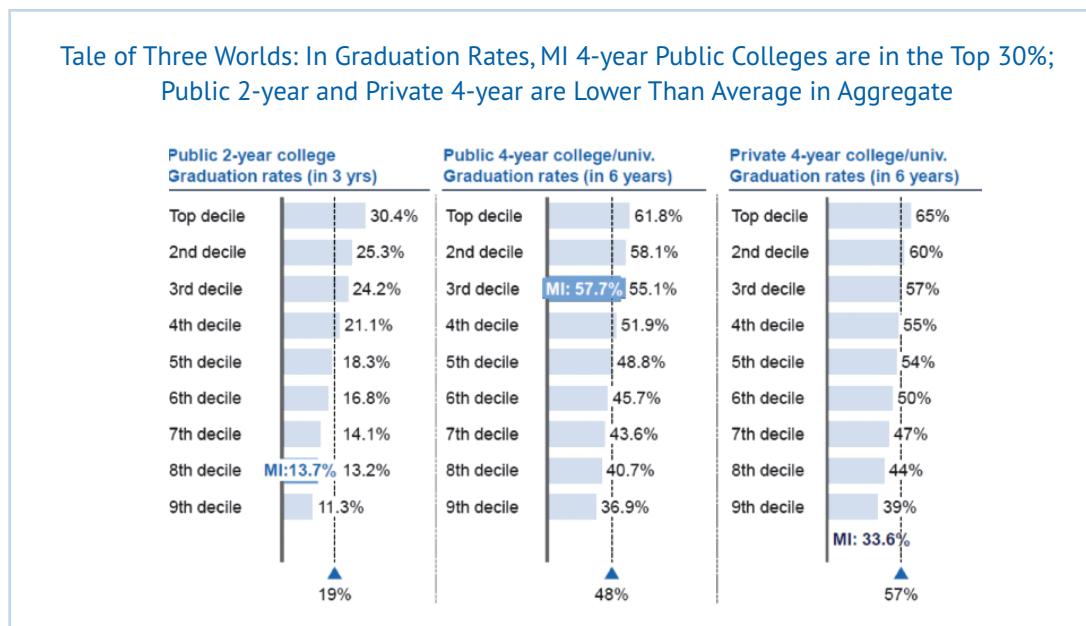
⁴⁷ NCES Integrated Postsecondary Education Data System (IPEDS). Op. Cit. "2012 Data."; Bureau of Labor Statistics (2015). "Consumer Price Index." Web. 31 Jan. 2105. Analysis by Anderson Economic Group.

⁴⁸ Full Time Student Equivalent.

⁴⁹ NCES Integrated Postsecondary Education Data System (IPEDS). Op. Cit. "2012 Data."

- Michigan invests more in its two-year colleges than other states, but outcomes have been weaker.** Public funding for two-year schools in Michigan is higher than the national average, with schools in Michigan receiving \$6700 per FTES vs. \$3600 nationally.⁵⁰ Yet student outcomes do not appear as strong as other states. The total completion rate at Michigan community colleges is 33 percent,⁵¹ compared with the national average of 37 percent, ranking Michigan among the bottom 10 states on completion. Further, 4.7 percent of students enrolled in a Michigan community college complete a four-year degree, compared with the national average of 7.1 percent.⁵² These national comparisons are weaker than those for Michigan's public four-year universities (Exhibit 12).⁵³ Community colleges face several challenges that could be directly impacting these measures. Open access means a broad range of students with diverse educational needs (including many who are not college-ready) must be served—from adults trying to start a new career to recent high school graduates getting ready for college or trying to secure their first jobs.

Exhibit 12: Completion Rates at Higher Education Institutions in Michigan⁵⁴



- Data that measure community college outcomes on non-credentialed learning (e.g., working adults who take a course or two to modernize their skills or customized programs developed with local employers) are weak.** Broader efforts to understand and track all types of academic and skill-building programs are important.
- Jobs requiring only an associate's degree are expected to grow twice as fast as those requiring no college experience.**⁵⁵ Credentials tailored to the needs of specific careers are in greater demand than ever, with more than one million certificates awarded in 2010.⁵⁶

50 NCES Integrated Postsecondary Education Data System (IPEDS). Op. Cit. "2012 Data."

51 National Student Clearinghouse Research Center. Web. 3 Mar. 2014. In 6 years, including certificates and transfer students.

52 Ibid.

53 Ibid.

54 Ibid.

55 Office of Social Innovation and Civic Participation (2009). "Investing in Education." Washington, D.C.: The White House.

56 Carnevale, A.; Rose, S. & Hanson, A. (2012). "Certificates: Gateway to Gainful Employment and College Degrees." Washington, D.C.: Georgetown University Center on Education and the Workforce.

- **While there is no evidence that state-mandated higher education governance systems reduce costs or produce better outcomes, Michigan (the only state without a higher education system or state policy collaboration entity) could realize meaningful outcomes from greater collaboration.** Michigan's institutions of higher education have a long tradition of independence that has let them define diverse missions and be innovative and agile in how they fulfill their missions—without excessive state-level bureaucracy. This autonomy has also provided a distinct advantage in recruiting administrators and responding to market conditions.⁵⁷ Based on a review of states with large higher education systems, we could also find no correlation with student outcomes or lower costs. But the lack of a collaboration vehicle has also allowed two- and four-year institutions to expand their missions (e.g., two-year colleges offering four-year degrees, four-year regional colleges expanding into high research fields, etc.) and failed to fully leverage potential cost savings and qualitative improvements.

Potential strategies:

Greater transparency relative to higher education outcomes and the use of performance-based metrics to determine public funding can build public trust. In addition, to continue meeting the demands of students and the public, universities need to consider new delivery models for education, new support systems for students, and new models for tuition arrangements. New techniques to support students and ensure they receive the education they have paid for are also necessary. For example, every incoming student at Miami Dade has an academic advisor who mentors the student and watches for “risk triggers” (e.g., missed classes, course withdrawals). The City Colleges of Chicago (CCC) revamped its schools through a “Reinvention” initiative—efforts intended to increase student readiness for college, retention, completion, efficiency, and relevance to the local community. The CCC has added remedial classes using smaller cohorts, increased advisor-to-student ratios, created a comprehensive credential and transfer system, and is even adding two new campuses. CCC is also using a data- and analytics-fueled effort to improve student outcomes. Similarly, Georgia State has undertaken a targeted student success program that pairs predictive analytics with on-the-ground peer and faculty advising.

Outcomes can be improved through increased collaboration among higher education institutions. Collaboration between two-year and four-year schools can help create programs to ease the transition and transferability between those schools, which will improve completion and student success rates. Collaboration between educational institutions and private sector employers can help meet the needs of the workforce of the state and ensure students are well prepared for a job.

Partnerships among higher education institutions in other states suggest additional possibilities. Some universities have collaborated to centralize back-office functions and services that they redirect to educational programs (e.g., academic programs and financial aid). The University of California's “Working Smarter” collaboration, for example, includes initiatives ranging from

⁵⁷ Public Sector Consultants (2003). “Michigan's Higher Education System: A Guide for State Policymakers,” Big Rapids, MI: Ferris State University.

strategic sourcing to shared back office services to captive insurance plans and is on track to save the state \$500 million. The effort includes standardizing procurement systems across all 10 campuses and co-locating and consolidating IT centers.

Michigan could realize greater results by building on some collaboration models already in place – both operational collaborations to generate cost savings and educational collaborations that improve learning outcomes.⁵⁸ Current operational collaborations include the Michigan Universities Self-Insurance Corporation (M.U.S.I.C.) and Michigan Universities Coalition on Health (MUCH). Educational collaborations include the Michigan Transfer Network (MTN), an effort to establish a core transfer equivalency system, and the Academic Program Review (APR), a cooperative review process for new or revised academic programs. The Michigan Community College Association (MCCA) has established four centers of excellence—the Michigan Center for Student Success, the Virtual Learning Collaborative, the Michigan New Jobs Training Program, and the Michigan Center for Global Initiatives. In addition, a Michigan Transfer Agreement has been established to streamline the transfer of the first 30 core units.

Recommendations:

| 2. Become a Top Ten state for higher education outcomes. | |
|--|---|
| State Actions | <ul style="list-style-type: none"> • Continue to use performance-based funding to ensure institutions focus on and excel at their core missions. Performance-based funding encourages differentiation by focusing institutions on the core missions upon which they were founded, without discouraging creative partnerships across institutions that meet changing local needs. Examples include four-year programs that begin at two-year colleges, partnerships that connect the research conducted at research universities with educational programs at regional universities, etc. |
| College/University Actions | <ul style="list-style-type: none"> • Support rigorous research on new education delivery methods and aggressively implement proven, effective solutions. Creating a single center of excellence within institutions and a statewide consortium to collaborate across institutions would accelerate adoption of the most effective new education delivery methods, such as competency-based learning, digital and distance learning, predictive analysis and online remediation systems. The cost of developing new educational delivery methods is prohibitive for many institutions and can be better achieved through collaboration. • Embrace performance-based state funding. Revenue limitations have reset the role of states from “funders” to “major donors” of higher education. Universities and colleges can ease this transition by embracing a commitment to higher outcomes and accountability in exchange for greater support. |

⁵⁸ Presidents Council, *State Universities of Michigan* (2011). “Collaborating for Success: Advancing Public Higher Education Through Cooperation.” Lansing, MI: PCSUM.

| | |
|-------------------------------|---|
| College/University Actions | <ul style="list-style-type: none"> • Develop more programs that offer sub-degree certificates. These “boot camps” could help address specific needs that are relevant to the workforce and the economy and would be much more cost-effective for students seeking to improve their skills. Performance-based funding metrics would need to be created to address this desired outcome. • Increase transferability of credits. Stronger coordination between two- and four-year colleges should increase the number of credits that are easily transferred and provide stronger support systems to ensure transfer students succeed at their new school. • Increase adoption of dual credits. Courses offered for dual credit stem from agreements between high schools, universities and community colleges whereby a high school junior or senior enrolls in a college course and simultaneously earns college credit and high school credit for the course. • Incent college completion. Underperforming colleges and universities should set goals for increasing degree completion and offer support services, restructured course schedules, and modified financial aid incentives based on an analysis of each campus’ experience. |
| Collaborative Actions | <p>The state, business community, and universities and colleges should:</p> <ul style="list-style-type: none"> • Expand the existing higher education performance tracker. BLM’s Performance Tracker for Public Universities should be expanded to provide simple, clear, and user-friendly data (e.g., an online return-on-investment calculator) that shows, for each institution of higher education (universities and community colleges), the potential costs and benefits of different educational choices. This will help parents and students better evaluate whether they are getting value for money. • Form a new public-private partnership to accelerate collaboration. The voluntary formation of a council by business, higher education and the state could accelerate collaboration while building on the advantages of Michigan’s current governance structure. <ul style="list-style-type: none"> – The mission should focus on benchmarking the competitiveness of Michigan higher education, identifying strategies that will accelerate achievement of state talent needs, maintaining databases that identify institutional performance and student outcomes (e.g. the performance tracker referenced above) and increasing cross-institutional collaboration that improves outcomes. Collaboration initiatives should include consolidating back-office operations, developing marketing programs to increase student enrollment and coordinating programs to meet regional workforce development needs. – The partnership should be established as a non-profit organization, remain independent of the political process, be professionally staffed and have a distinguished board. The Governor, Business Leaders for Michigan and higher education organizations could form this partnership by appointing distinguished former and current business executives, higher education presidents and state leaders. |

3. From Education to Employment

Higher education institutions must provide graduates with the education and skills to get a good first job and have a successful career and life. While not the sole purpose of higher education, the development of knowledge and skills that prepare graduates for employment broaden their opportunity to lead successful lives. The likelihood of successful employment after graduation remains an important factor for students and parents in choosing which school to attend and what area to study. At the same time, a more educated workforce contributes to a more productive state economy. Graduates of Michigan's four-year public universities earned \$47 billion in salaries and wages in 2012. Their earnings represent 25 percent of the state's total despite composing only about 15 percent of the population.⁵⁹

Key findings:

- **The shift to a knowledge-based economy and Michigan's resurgent economic growth has created short- and long-term challenges of matching workforce supply with demand.** Michigan faces a short-term shortage of skilled workers (e.g., workers with associate's degrees or other certificates) and a mid- to long-term shortage of workers with advanced degrees. Michigan's aging population will create a large number of job openings for workers with less than a two-year degree in the next few years. But once those jobs are filled, Michigan will find that most new jobs will be in fields that require at least a two-year degree.
 - According to a Glengariff poll and a survey of BLM members, 28 percent of small/medium and 73 percent of large businesses experienced difficulty filling available above average wage jobs. While a majority of these jobs were in technically oriented fields, such as engineering or information technology, a large number were also in management, sales, marketing, and other fields.⁶⁰
 - The largest number of projected job openings by 2020 will be in sales, office support and blue-collar fields that mostly require workers with no more than a credential mostly due to the need to replace retiring workers.⁶²
 - The largest percentage of net new jobs that are projected to be created by 2020 are in the health care and management fields, the vast majority of which require a minimum of a two-year degree.⁶¹
- **Michigan is increasing its production of graduates with critical skills degrees and certificates, but still falls below Top Ten and peer states.** The number of critical skill degrees awarded in Michigan since 2003 has risen 4.6 percent annually, but still fell six percent lower than the Top Ten average annual increase in 2013. Michigan was also outranked by most of its peers in terms of both the level and growth of critical skills degrees and certificates awarded (Exhibit 13).⁶²

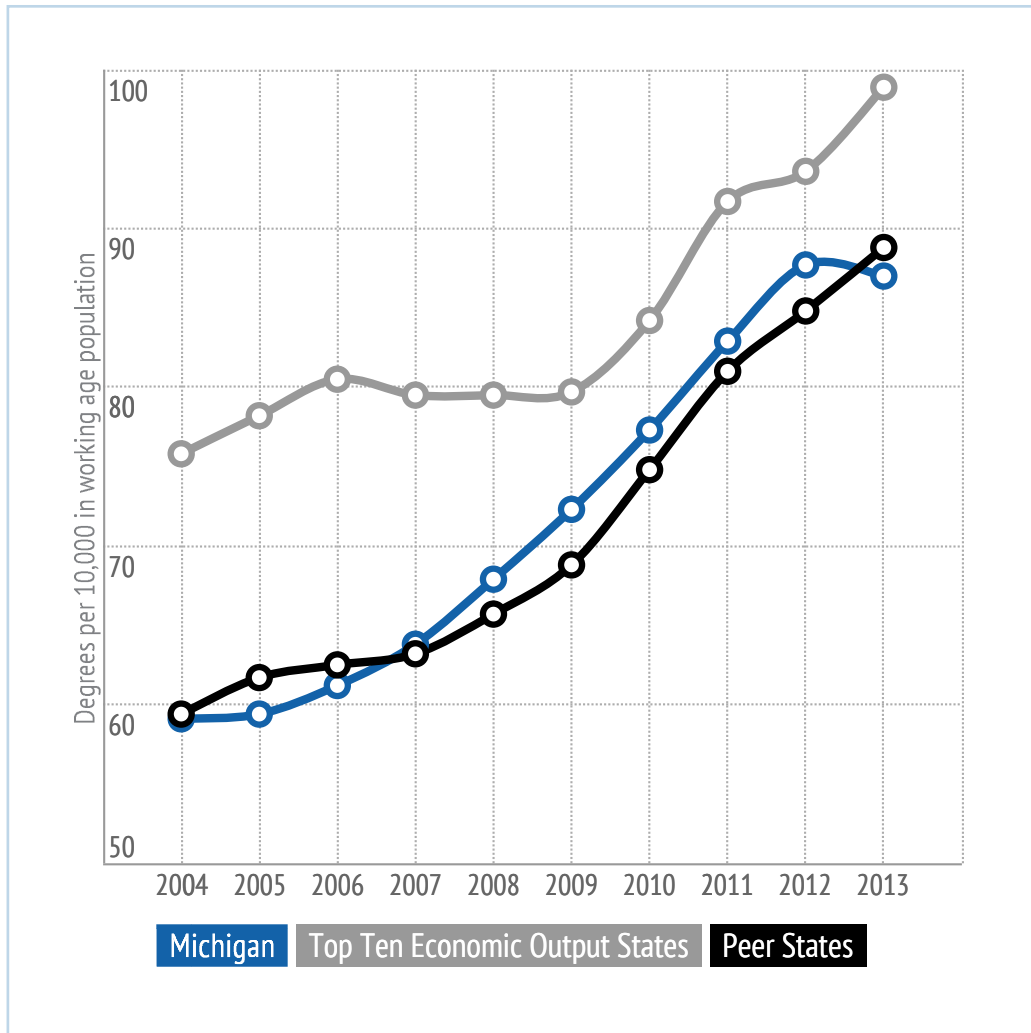
59 PCSUM; US Bureau of Economic Analysis; US Census Bureau. Analysis by BLM..

60 Business Leaders for Michigan (2013). "Business Leaders' Insights: Michigan's Workforce Strengths and Challenges." Op. Cit.

61 Carnevale, A.; Smith, N. & Strohl, J. (2013). "Recovery—Job Growth And Education Requirements Through 2020." Washington, D.C.: Georgetown University Center on Education and the Workforce.

62 Business Leaders for Michigan (2014). "2014 Economic Competitiveness Benchmarking Report: Data Supporting the Michigan Turnaround Plan." Op. Cit.

Exhibit 13: Technical Education Degrees Per Capita⁶³



⁶³ Ibid.

⁶⁴ NCES Integrated Postsecondary Education Data System (IPEDS). "Fall 2012, Completions Component." Washington, DC: National Center for Education Statistics; U.S. Census Bureau (2012). "Annual Estimates of the Population for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2012." Washington, DC: U.S. Census Bureau. Analysis by Business Leaders for Michigan.

⁶⁵ NCES Integrated Postsecondary Education Data System (IPEDS). "Institutional Characteristics (IC) and Completions Component, 2010." Washington, DC: National Center for Education Statistics; U.S. Census Bureau (2012). "Annual Estimates of the Population for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2012." Washington, DC: U.S. Census Bureau. Analysis by Business Leaders for Michigan.

⁶⁶ Humanities includes degrees in area, ethnic, cultural, gender, and group studies; English language and literature/letters; foreign languages, literatures, and linguistics; liberal arts and sciences, general studies and humanities; multi/interdisciplinary studies; philosophy and religious studies; theology and religious vocations; and visual and performing arts. Natural Sciences includes degrees in biological and biomedical sciences; physical sciences; science technologies/technicians; and mathematics and statistics. Engineering includes engineering; engineering technologies/technicians; mechanic and repair technologies/technicians; and construction trades. Other fields includes agriculture, agricultural operations, and related sciences; natural resources and conservation; architecture and related services; communication, journalism, and related programs; communications technologies/technicians and support services; family and consumer services/human sciences; legal professions and studies; library science; military technologies and applied sciences; parks, recreation, leisure, and fitness studies; homeland security, law enforcement, and firefighting; public administration and social service professions; transportation and materials moving; and not classified by field of study.

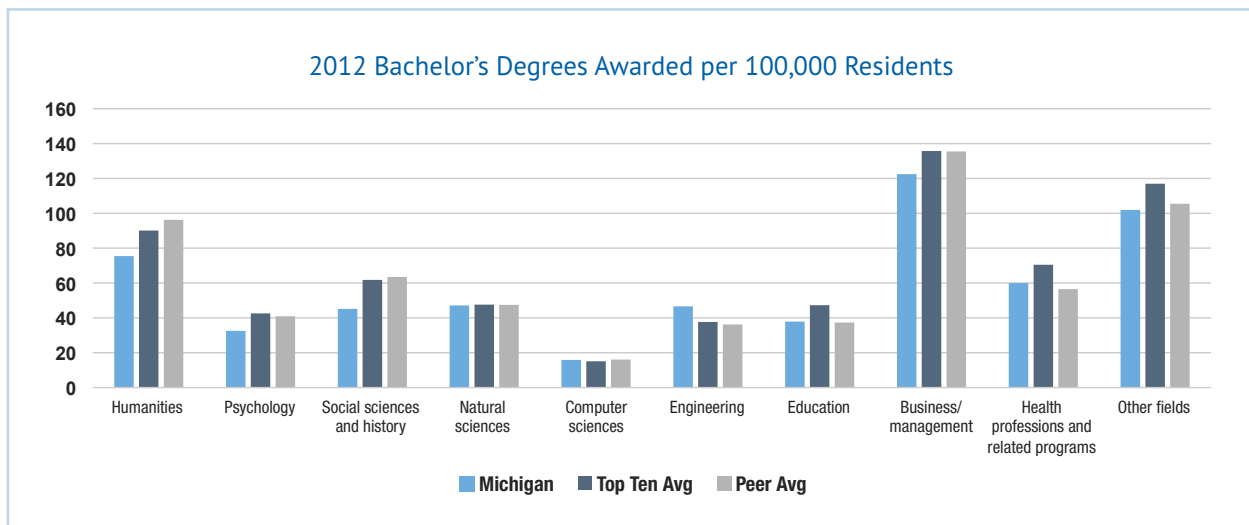
⁶⁷ NCES Integrated Postsecondary Education Data System (IPEDS). "Institutional Characteristics (IC) and Completions Component, 2010." Washington, DC: National Center for Education Statistics; U.S. Census Bureau (2012). "Annual Estimates of the Population for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2012." Op. Cit. Analysis by Business Leaders for Michigan. Analysis by BLM.

⁶⁸ Carnevale, A.; Smith, N. & Strohl, J. (2013). Op. Cit.

⁶⁹ NCES Integrated Postsecondary Education Data System (IPEDS). "Institutional Characteristics (IC) and Completions Component, 2010." Washington, DC: National Center for Education Statistics; U.S. Census Bureau (2012). "Annual Estimates of the Population for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2012." Washington, DC: U.S. Census Bureau. Analysis by Business Leaders for Michigan.

- Michigan produces fewer four-year degree graduates than Top Ten states in most fields and only exceeds the Top Ten average in engineering and computer science (Exhibit 14).⁶⁴

Exhibit 14: Four-Year Degree Production Per Capita^{65 66}



- Michigan produces a comparable level of two-year degree and sub-baccalaureate certificate talent in most fields to Top Ten states, but far more in health sciences and far fewer in manufacturing and construction (Exhibits 15 & 16).⁶⁷ Michigan's aging demographics will create high demand to fill over 250,000 skilled trades and technical jobs by 2020—jobs that often pay above average wages.⁶⁸

Exhibit 15: Two-Year Degree Production Per Capita⁶⁹

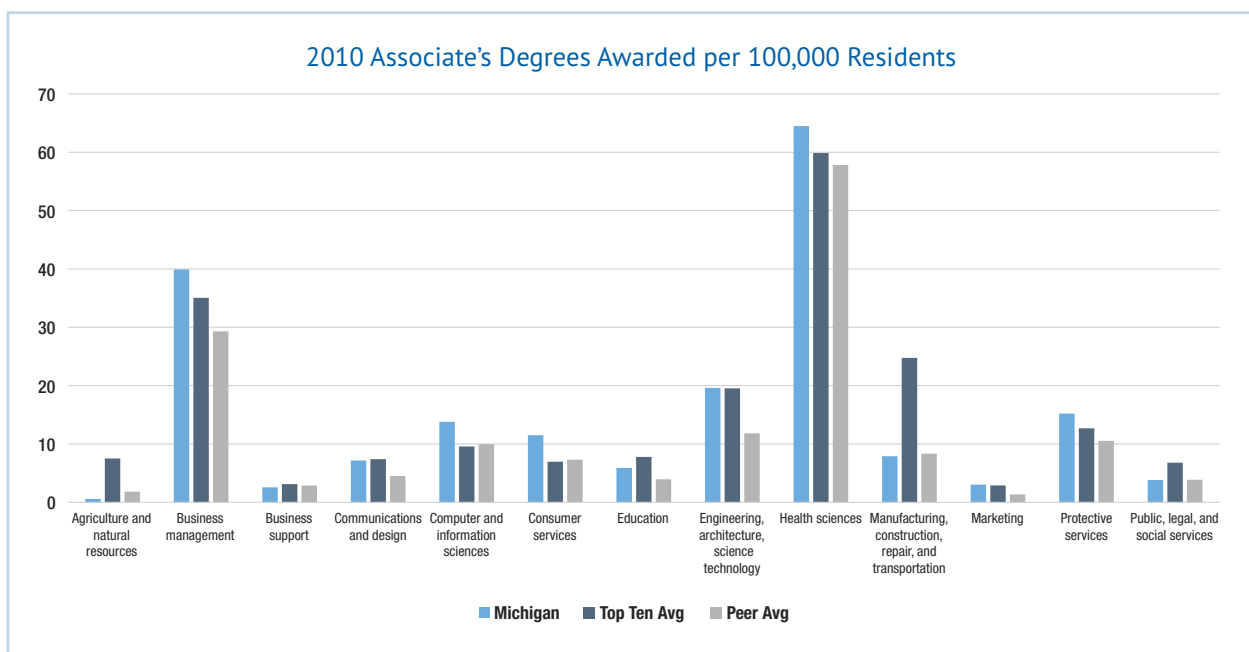
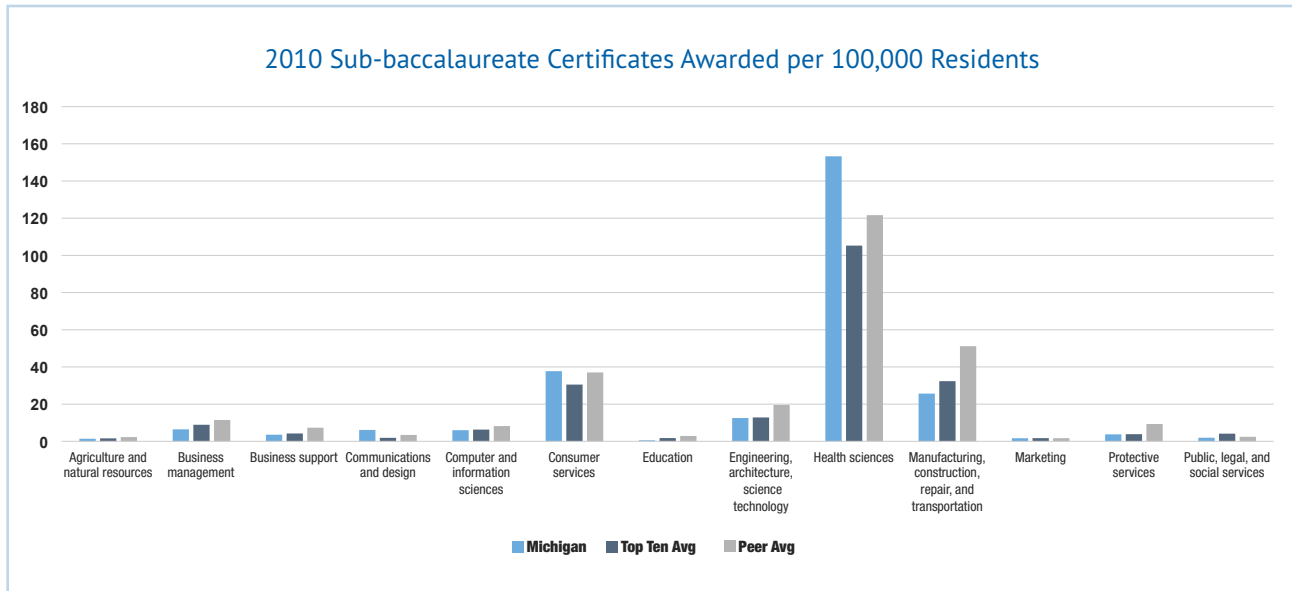
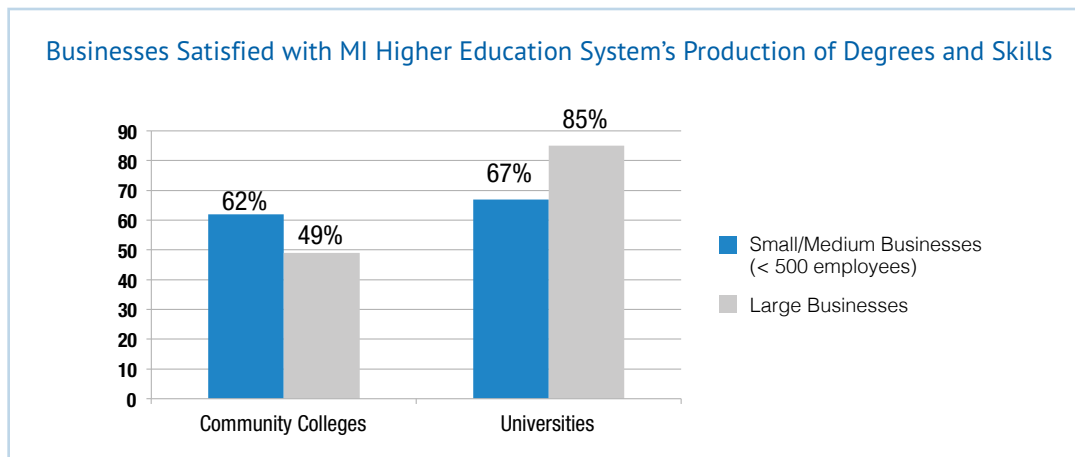


Exhibit 16: Certificate Production Per Capita⁷⁰



- Employer satisfaction with the degree and skill production of Michigan's higher education institutions differs.** A majority of Michigan's large businesses report being satisfied with the degrees and skills of graduates of our public universities, according to a statewide Glengariff poll and a survey of BLM members. But only half of large businesses are similarly satisfied with the production of community colleges and one-third of Michigan's small/medium businesses report being dissatisfied with the production of both the state's community colleges and universities (Exhibit 17).⁷¹

Exhibit 17: Michigan Business Satisfaction with Higher Education Graduates⁷²



⁷⁰ NCES Integrated Postsecondary Education Data System (IPEDS). "Institutional Characteristics (IC) and Completions Component, 2010." Washington, DC: National Center for Education Statistics; U.S. Census Bureau (2012). "Annual Estimates of the Population for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2012." Washington, DC: U.S. Census Bureau. Analysis by Business Leaders for Michigan.

⁷¹ Business Leaders for Michigan (2013). "Business Leaders' Insights: Michigan's Workforce Strengths and Challenges." Op. Cit.

⁷² Ibid.

- **The current difficulty in filling jobs appears to be due more to a lack of relevant experience and skills than to a lack of proper education credentials.**
 - Ninety-three percent of large and 88 percent of small/medium businesses report that job applicants meet the minimum education requirements for available jobs (Exhibit 18).
 - More than half of all businesses report a lack of applicants with adequate experience or skills for not being able to fill above average paying jobs (Exhibit 19). More than 90 percent of all businesses cite a job applicant's skills and experience as being the most important requirement for a job with their company. This is not to suggest that all institutions of higher education should turn into vocational schools, but that these institutions could do more to ensure that the skills and modes of thinking taught prepare graduates to seek and hold employment. The result is that 31 percent of employers nationally believe that recent graduates are not prepared for entry-level jobs, and many call skills shortages a leading cause of entry-level vacancies.⁷³ Many students agree that they are not adequately prepared, although education providers disagree (Exhibit 20).

Exhibit 18: Michigan Job Applicants Meeting Education Requirements⁷⁴

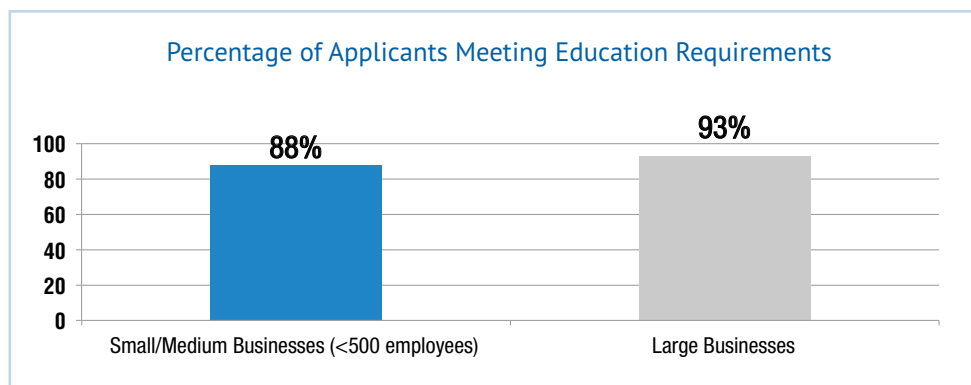
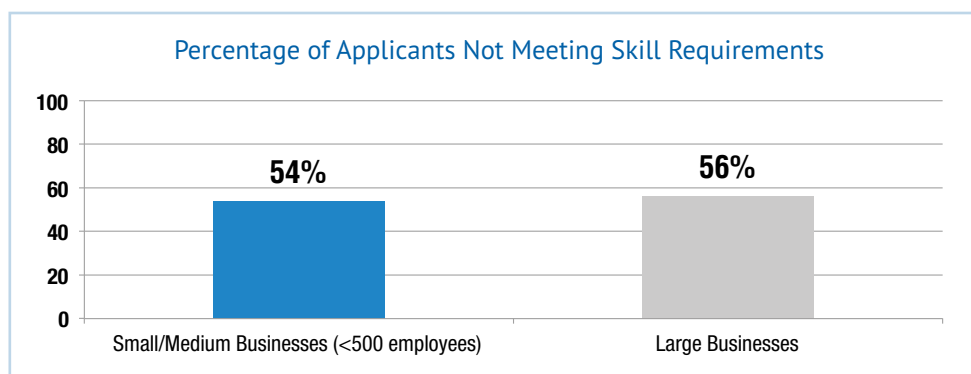


Exhibit 19: Michigan Job Applicants Meeting Skill Requirements⁷⁵

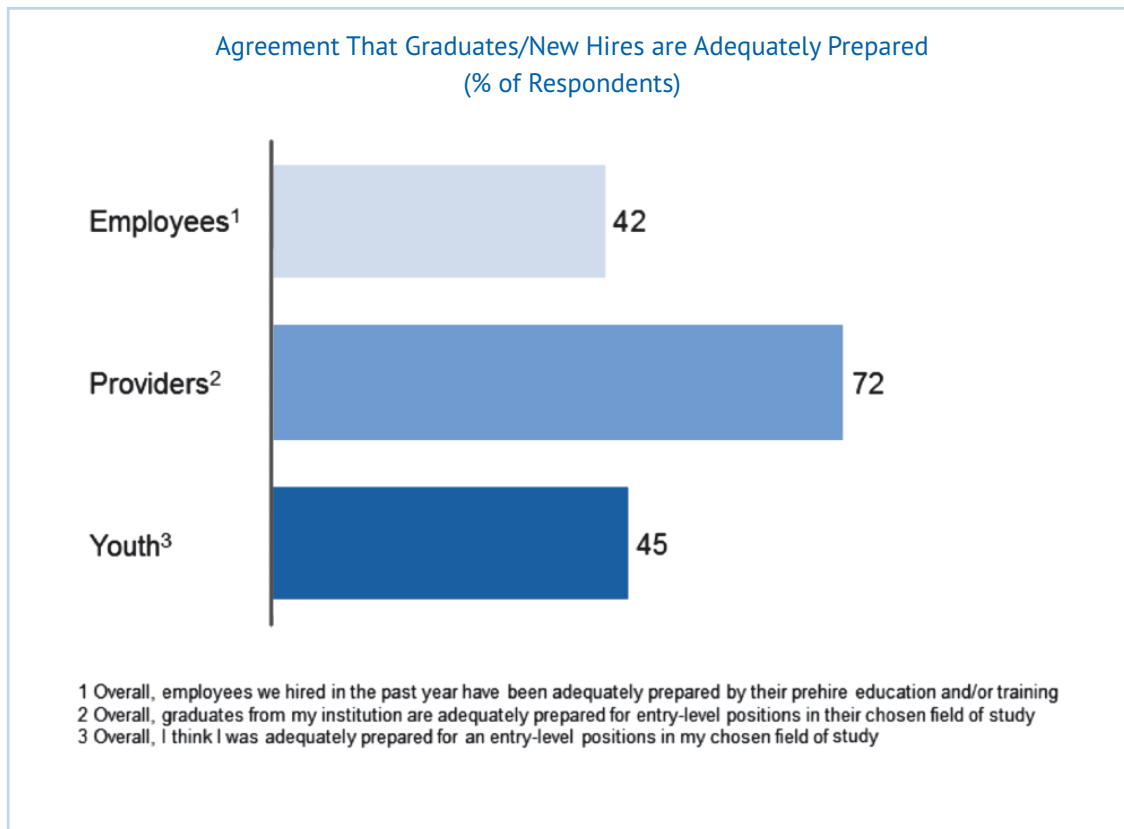


⁷³ Maguire Associates, Inc. (2012). "The Role of Higher Education in Career Development: Employer Perceptions. Washington, D.C.: The Chronicle of Higher Education and American Public Media.

⁷⁴ Business Leaders for Michigan (2013). "Business Leaders' Insights: Michigan's Workforce Strengths and Challenges." Op. Cit.

⁷⁵ Ibid.

Exhibit 20: National Views on Preparation of New Hires⁷⁶



- **A formal community college-led credentialing system is needed.** Even traditional “blue collar” jobs are becoming increasingly complex and employers are constantly seeking ways to ensure the employees they hire are well trained for these positions. One can also look to Germany where technical programs to train workers in skilled trades (e.g., CNC machine operators, tool and die designers, machine electronics) are highly common and serve to advance the careers of the workers as well as ensure an available pool of highly skilled talent. However, this idea is not limited just to manufacturing. For example, many employers recognize Microsoft developer credentials as a signal of job readiness. Michigan’s community college system is a natural place for this sort of learning and credentialing to occur.

⁷⁶ McKinsey & Company research.

Potential strategies:

A number of organizations in the state (West Michigan's Talent 2025, Southeast Michigan Workforce Innovation Network, Michigan Works! and the Michigan Economic Development Corporation, among others) have begun to align their skill requirements with educational institutions. For example, through a long-term partnership with Washtenaw Community College apprentice and journey-level members of the United Association of Plumbers and Pipefitters Union and the International Union of Bricklayers and Allied Craftworkers can pursue certificates or work toward an associate's degree in Construction Supervision. Other states and countries have forged strong relationships between education and employment. For example, South Carolina has developed four-year degree programs designed to meet the needs of their growing automotive engineering industry. Likewise, customized vocational and experiential training has proven highly successful, as many jobs that employers are trying to fill do not require college degrees.⁷⁷ North Carolina's "Apprenticeship 2000" program combines an associate's degree with a vocational certificate. In Kentucky, a consortium of automotive manufacturers (Automotive Manufacturing Technical Education Collaborative) has partnered with community colleges to train skilled automotive workers.

Other programs focus on corporate internships (e.g., Year Up's program for low-income youth), and some bring the workplace into the classroom (e.g., Australia's TAFE Box Hill Institute features a fully equipped hospital ward). The Go for Gold program in South Africa gives disadvantaged students a yearlong internship at a local company before college, and then the companies can sponsor the students at the university. Many large employers partner with universities, such as Boeing's partnership with CalTech and Abaxis' partnership with Kansas State University.

Another approach, so far mostly used in other countries, is the creation and use of "system integrators." These are organizations that work with employers, institutions, and the government to coordinate skills requirements and school curricula. For example, the National Skill Development Corporation in India oversees sector skills councils and has the main mandate to accelerate solutions developed and led by the private sector. In Brazil, Prominp is an oil and gas industry specific integrator that assists in curriculum development and talent identification and whose membership includes major employers, industry associations, union, and government. Germany's Federal Labor Agency is a self-governing institution that administers benefit and job placement services to unemployed and partners with local municipalities for delivery of retraining programs.

77 According to the Manpower Group's talent shortage survey 2012, the jobs that are hardest to fill include skilled tradesmen, commercial drivers, mechanics, and machine operators. Many of these jobs do not require a college degree and can be filled by workers who complete short-term, targeted training programs.

Recommendations:

| 3. Strengthen the transition from education to employment. | |
|--|---|
| State Actions | <ul style="list-style-type: none"> • Require the development of regional workforce plans that match talent demand and supply. Regional workforce development plans should project current and future hiring needs (quantity, education, skills and competencies), education and training needs, and strategies to close identified gaps. “Integrator” units (e.g., region-specific, industry-specific) that promote collaboration among employers, communities, and institutions of higher education can act as forums to discuss additional partnership opportunities. |
| College/University Actions | <ul style="list-style-type: none"> • Track graduate placement outcomes. Michigan colleges and universities should systematically track student outcomes both upon graduation and later in their careers to provide better data to prospective students about likely outcomes and improve program effectiveness. • Track job provider satisfaction. Michigan’s colleges and universities should also systematically track job provider satisfaction with graduate job readiness and the overall supply of graduates relative to available demand. • Develop better metrics to track non-degree outcomes. Michigan’s colleges, working with the business community, should develop better ways to quantify the return on investment or impact students receive when they complete non-degreed courses. |
| Collaborative Actions | <p>The state, colleges and universities and business community should:</p> <ul style="list-style-type: none"> • Emphasize the need for more educated and skilled talent. For Michigan to grow and personal incomes to rise, the state needs to encourage the public, educational institutions and regional leaders to expand opportunities to increase both education attainment and skill levels. • Expand internships and career counseling. Regional strategies should be developed to expand postsecondary internships aligned with projected hiring needs. In addition, expanded and improved career counseling and information services in high schools, colleges and universities will increase student exposure to career options. • Expand credentialing. Industry groups and educational institutions should collaborate in the creation of credentials and curricula specific to the needs of that industry, recognizing that a national system is needed to allow credentials to be transferable between states and institutions. In addition, accreditation programs in communication and problem-solving skills at colleges and universities could be improved so students know the skills required, educators teach those skills, and employers better match people equipped for success with job openings. |

4. Economic Impact

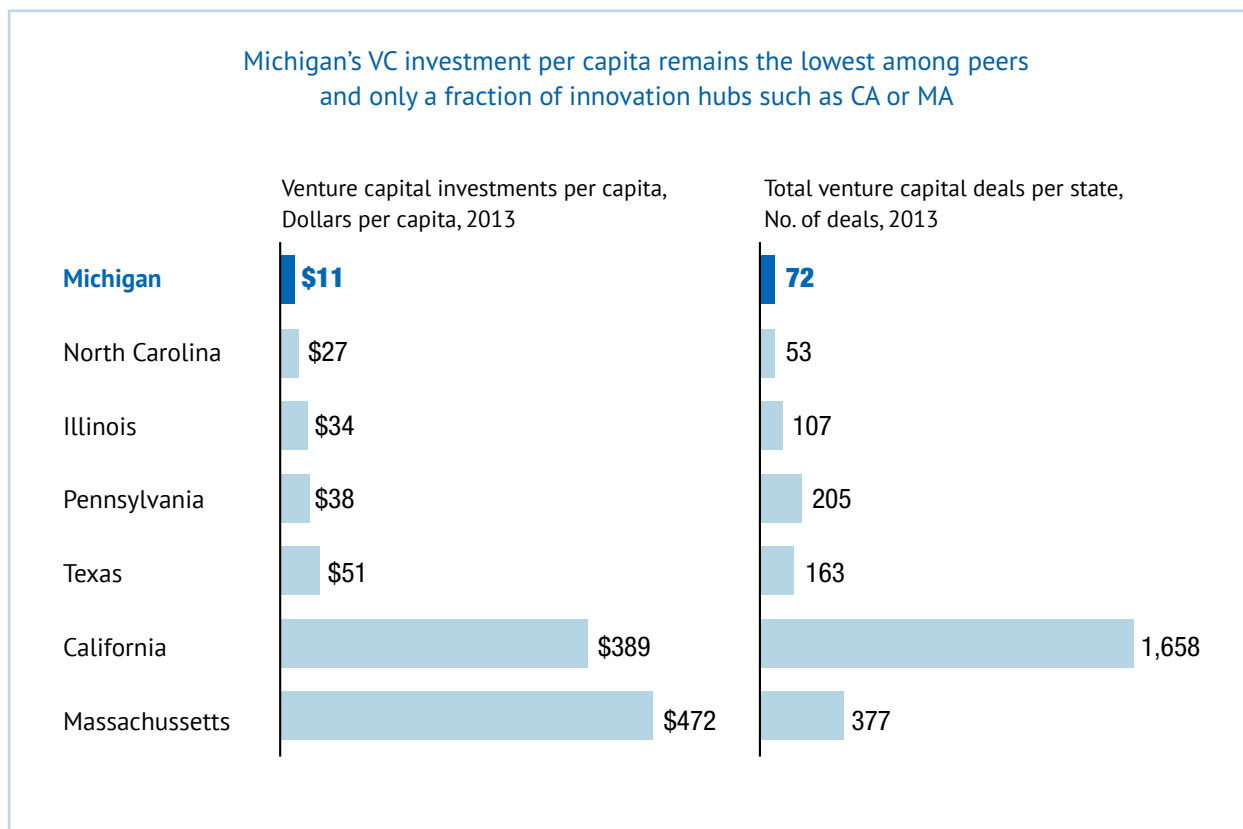
● **Higher education is one of the state's assets with the highest potential to increase jobs and incomes.** While Michigan is a leader in patent generation and research and development, it lags most other states in the percentage of university R&D funded by industry. Michigan has untapped potential to attract a larger share of federal R&D dollars and has not achieved sufficient growth in start-up formation or catalyzing clusters of innovation. This indicates a need to expand the role higher education plays in economic development.

Key findings:

- **Higher education is one of six existing state assets with the greatest potential to accelerate Michigan's growth.** The sector has the potential to increase state GDP by up to \$200 million and add an additional 40,000 new jobs by 2022, simply by growing enrollment. The impact could be even larger by growing research and development and expanding its role in economic development.⁷⁸
- **As centers of discovery, institutions of higher education play an essential role in fueling entrepreneurship and innovation, which is a critical engine of Michigan's economy.** Discoveries from university research create businesses and jobs across the state. Michigan's major research universities are leaders in innovation, ranking second among eight major university research clusters for their combined output in research spending, commercialization of research activity, and production of technical talent.⁷⁹
- **Higher education is critical to enabling the full economic potential of Michigan's other key assets.** Michigan's engineering, life sciences, logistics, mobility and natural resources sectors (in addition to higher education) have been identified as having the greatest potential to accelerate job and income growth and all are dependent on the talent and research developed by higher education to fully realize their economic potential.⁸⁰
- **Higher education is playing a central role redeveloping Michigan cities.** From Detroit to Grand Rapids and Flint to Houghton, Michigan's colleges and universities are major redevelopers of inner-city property that results in safer, more populated communities. This is following a national trend.⁸¹
- **Michigan's higher education institutions have the intrinsic qualities to provide a strong base for fueling greater entrepreneurship and innovation.** The University Research Corridor (URC) universities offer more than 40 programs and assistance to entrepreneurs, including advisory services, gap funding, and business incubators. URC's fostering of entrepreneurship has demonstrated impact. Alumni-founded companies are one and a half times more likely to remain in operation than the U.S. average, and the three URC universities have cultivated 163 start-ups since 2002. The Michigan Initiative for Innovation and Entrepreneurship plans to create 200 start-ups over the next decade by promoting an entrepreneurial culture on university campuses and awarding grants. Other Michigan schools have also developed entrepreneurship programs, such as Eastern Michigan University's Center for Entrepreneurship and Grand Valley State University's double major in business and entrepreneurship. Recently, JP Morgan Chase awarded Macomb Community College a \$1 million grant to develop an innovation fund to support growth in the Detroit area. Another example is the Michigan Translational Research and Commercialization Program (M-TRAC) funded by the 21st Century Jobs Fund, which will create high-tech jobs through commercialization of university research and creation of university spin-offs in focused areas.

- University and college success accelerating entrepreneurship has not yet led to statewide success in increasing overall entrepreneurship and venture funding.** The Kaufmann Index, a comprehensive and leading indicator of entrepreneurship, measures the percent of the population engaging in entrepreneurial activities. In 2013, the Index benchmarked Michigan 20th out of the 50 states in 2013, a rate that was virtually unchanged since 2001.⁸² While Michigan has enjoyed some recent success in growing venture capital funding (adjusted for population size), it still lags peer states by a wide margin (Exhibit 21).

Exhibit 21: Limited Venture Capital in Michigan⁸³



- Michigan has an opportunity to increase its share of federal research and development investments.** The state ranked 19th for federal research & development spending in 2012, which is less than peer states such as Ohio and Illinois and lower than the size of Michigan's economy (14th GDP rank).^{84 85}

78 Business Leaders for Michigan (2014). "Growing a New Michigan: The 2014 Report on Michigan's Progress in Growing Six Opportunities." Op. Cit.

79 University Research Corridor (2014). "Empowering Michigan: Seventh Annual Economic Impact Report of Michigan's University Research Corridor." Lansing, MI: URC.

80 Business Leaders for Michigan (2014). "Growing a New Michigan: The 2014 Report on Michigan's Progress in Growing Six Opportunities." Op. Cit.

81 Shaffer, D. & Wright, D. (2010). "A New Paradigm for Economic Development: How Higher Education Institutions Are Working to Revitalize Their Regional and State Economies." Albany, NY: Nelson Rockefeller Institute of Government.

82 Kauffman Index of Entrepreneurial Activity 2014.

83 Price Waterhouse Coopers Money Tree report.

84 State Science and Technology Institute, Useful Stats: Venture Capital Investment Dollars, Deals by State, 2009-2014.

85 National Science Foundation (2011). "Science & Engineering State Profiles." Web. 31 Jan. 2015.

Potential strategies:

There are a number of reasons why the presence of universities with recognized areas of research excellence play a critical role for states seeking to grow knowledge economies. First, the research conducted at the university level generates new knowledge and technology that form the basis for creating new firms and introducing new products in the marketplace. Second, universities both attract and produce highly trained personnel who provide the technically educated workforce needed by technologically advanced companies. The presence of such a workforce, in turn, attracts technology companies to locate in proximity to university centers.

Universities that have been most effective in launching and supporting knowledge economies appear to display the following characteristics:

- **They are performing world-class research in areas that correspond to the science and technology drivers of the national and regional knowledge sectors.** Universities that are responsive to the knowledge economy often have developed centers of excellence focused on key technology areas of importance to regional industry clusters. In addition to conducting research of value to the industry, these centers enable the university to turn out significant numbers of undergraduates and graduates that provide the workforce needed by the industry.
- **They have a cadre of nationally prominent faculty.** A new paradigm has emerged that recognizes that a key to attracting research dollars and building an institution's capabilities and reputation is to attract world-class researchers. Universities that are effective generators of technology-based growth are able to recruit and retain their star researchers. In many cases, these prestigious faculty members hold appointments that are oriented toward both fundamental science and real world (e.g., industrial, social, cultural) applications and implications.
- **They have leadership that views the university as a key partner with industry and government in creating and growing a knowledge economy.** The university's leadership must be committed to pursuing concurrent goals of academic excellence and regional economic development, and the university must have in place an organizational infrastructure and culture that enables the university and faculty to partner—both internally across schools and disciplines, and externally with industry and other research institutions.

- **They have the physical infrastructure needed to support research and technology development.** This includes laboratories equipped with state-of-the-art instrumentation, attractive classrooms and learning centers encompassing the best instructional technologies, university-affiliated research parks to foster partnering and interaction with industry, and conference facilities that provide a range of venues for scholarly and business-oriented interaction.
- **They have mechanisms in place, including financing programs, to facilitate the translation of research findings into commercial products and processes.** More and more leading universities are improving technology transfer programs and establishing commercialization assistance programs to help faculty and entrepreneurs move technology from the lab to the market.⁸⁶

States can facilitate universities playing a larger role in economic development by incenting them to embrace this function as a part of their institutional mission. Higher education institutions can collaborate to attract federal research funding, facilitate stronger public-private research partnerships, and provide long-term leadership and funding for such efforts, such as Ohio's Third Frontier and Pennsylvania's Ben Franklin Partnership programs.^{87 88}

⁸⁶ U.S. Economic Development Administration (2006). "A Resource Guide to Technology-Based Economic Development." Washington, D.C.: U.S. Department of Commerce.

⁸⁷ Ohio Third Frontier.

⁸⁸ Pennsylvania Ben Franklin Technology Partnership.

Recommendations:

4. Grow economic impact.

State Actions

- **Encourage higher education to play a greater role in economic development and support these efforts through state economic development policy.** A pillar of the state's economic development strategy should include policies to leverage higher education as an economic driver. Earlier, this report recommended developing a long-term, sustainable funding mechanism to support college access and affordability. Concurrently, consideration should be given to state actions that encourage higher education to support economic development, such as:
 - **Catalyzing the growth of distinctive assets and clusters of innovation:** Create programs to build on distinctive areas of research and the capabilities at Michigan's universities that align with the state's highest potential assets. A current example in Michigan is the American Lightweight Materials Manufacturing Innovation Institute (ALMMII). This public-private partnership is designed to establish a regional manufacturing ecosystem to move cutting-edge lightweight metals out of the research lab and into tomorrow's cars, trucks, airplanes and ships for both the commercial and military sectors.
 - **Establishing a state cost-sharing fund and public-private partnership to more aggressively attract federal research:** Based on Michigan's research strengths, the state's key economic assets and emerging federal needs, Michigan should be attracting more federal research investment. A state cost-sharing fund to match federal grants along with a public-private collaboration to aggressively attract such investment would improve Michigan's competitiveness and could be replicated on efforts such as Michigan State University's Federal Rare Isotope Beam project. For example, Ohio's Third Frontier Industrial Research and Development Center Program provides a 15 percent match for R&D projects (both private and federally funded) with a minimum threshold of \$10 million investment.

- **Develop economic development centers of excellence that leverage each institution's greatest potential impact on the local economy and develop a means to share best practices across institutions.**⁸⁹ The economic development function should reflect the role of the institution. This means technology transfer should be a primary focus at research universities, while workforce development is emphasized at regional universities and community colleges.

Below are the possible economic development roles for higher education leaders to play:

- **Promote student innovation and entrepreneurship.** Formal programs, as well as extra-curricular activities, can channel student interest in solving real-world problems. Examples include certificate and degree programs, business plan contests, clubs and internships.
- **Encourage faculty innovation and entrepreneurship.** Provide greater recognition of faculty entrepreneurs, recognizing entrepreneurship for tenure, externships and greater resources to support faculty start-ups.
- **Actively support the university technology transfer function.** Serve as greater “connectors” of faculty, students and businesses and act as a resource to start-ups and changing university cultures.
- **Facilitate university-industry collaboration.** Open facilities, expose faculty and students to greater business collaboration, create business accelerators, and establish venture funds and incentive programs. An example is establishing a “Business Services Exchange” which provides later-stage start-ups with access to business and research leaders.
- **Engage regional and local economic development efforts.** Best practices include offering in-kind services, financial support and facilities and playing an active community development role.

⁸⁹ U.S. Department of Commerce (2013). “The Innovative and Entrepreneurial University: Higher Education, Innovation & Entrepreneurship in Focus.” Washington, DC: U.S. Department of Commerce

Collaborative
Actions**Colleges, universities and the business community should:**

- **Establish joint research institutes:** These institutes would connect Michigan's universities with key local industries in order to improve the initial pipeline of ideas, which could turn into future companies and build on strong attraction of federal research dollars. The National Governors Association identifies California and Oregon as having particularly strong models that grow start-ups and increase job creation by building strong public-private research partnerships.⁹⁰
- **Identify and grow the capacity to scale ideas beyond the research stage.** This may include creating early-stage, public- and foundation-funded venture funds to further develop university technologies for private investment (e.g., state-sponsored accelerator funding and the New Economy Initiative of Southeastern Michigan) or leveraging university, community and alumni groups to create an angel investor exchange. For example, the Illinois Science and Technology Council's Illinois Start-up Challenge connects early-stage companies (both from universities and non-universities) to Fortune 500 companies.

⁹⁰ National Governors Association (2011). "Growing State Economies: Twelve Actions." Washington, DC: National Governor's Association.

Research Methodology

Research for this report was conducted by Business Leaders for Michigan (BLM) with in-kind assistance from McKinsey & Company. Facts were verified by Anderson Economic Group of East Lansing, MI. The research included:

- A workshop in June 2014 and subsequent discussions with experts in higher education from across Michigan and the nation.
 - Albert Berriz, Co-Managing Member, Chief Executive Officer, Board Member and Co-Owner, McKinley
 - Mary Sue Coleman, former President of the University of Michigan
 - Steve Desjardins, Professor, University of Michigan, School of Education
 - Patrick Doyle, President & CEO, Domino's Pizza
 - Elizabeth Gutierrez, Director, State Policy, Lumina Foundation
 - Hans-Werner Kaas, Senior Partner, McKinsey & Company
 - Mike Jandernoa, Board of Directors, Perrigo Company
 - John Lin, Partner, McKinsey & Company
 - Eduardo Padron, President, Miami-Dade College
 - Craig Ruff, former Special Advisor on Education to Governor, State of Michigan
 - John Russell, President & CEO, CMS Energy
 - Mark Schlissel, President, University of Michigan
 - Jeff Selingo, Contributing Editor, The Chronicle of Higher Education; Author, College (Un)Bound: The Future of Higher Education and What It Means for Students; and Professor of Practice, Arizona State University
 - Lou Anna Simon, President, Michigan State University
 - Jim Spaniolo, former President, University of Texas at Arlington; and Special Advisor to the Governor for Higher Education, State of Michigan
 - Margaret Spellings, President, George W. Bush Presidential Center; former U.S. Secretary of Education (established the Commission on the Future of Higher Education)
 - Teresa Sullivan, President, University of Virginia
 - Mary Jo Waits, former Director, Economic, Human Services and Workforce Development, National Governors Association
 - M. Roy Wilson, President, Wayne State University
- Engagement with leaders of the Michigan higher education associations (Michigan Independent Colleges and Universities, Michigan Community College Association, and the Presidents Council, State Universities of Michigan), the State Board of Education (Chair, John Austin) as well as the Governor's office and state legislative leaders.
- Analysis of national data and case studies to understand Michigan's performance compared with other states, trends, and leading national practices.

Resources

- Business Leaders for Michigan—2014 Economic Competitiveness Benchmarking Report: Data Supporting the Michigan Turnaround Plan, November 2014
- Business Leaders for Michigan—Business Leaders' Insights: Michigan's Workforce Strengths and Challenges (March 2013)
- Business Leaders for Michigan—Growing a New Michigan: The 2014 Report on Michigan's Progress in Growing Six Opportunities
- Business Leaders for Michigan Higher Education Performance Tracker
- Center for American Progress
- Consumer Financial Protection Bureau
- Economic Policy Institute
- Ferris State University
- Georgetown University Center on Education and the Workforce
- Good Policy, Good Practice: The National Center for Public Policy and Higher Education and The National Center for Higher Education Management Systems
- Illinois State University Grapevine
- Lumina Foundation: A Stronger Nation through Higher Education
- McKinsey & Company
- Michigan Census Data: Michigan Center for Shared Solutions and Technology Partnerships
- Michigan Center for Geographic Information
- Michigan House Fiscal Agency
- Michigan Labor Market Information
- Michigan State University, College Employment Research Institute
- National Center for Education Statistics
- National Conference of State Legislatures
- National Governors Association
- Nelson Rockefeller Institute of Government
- Pew Research Center
- Presidents Council, State Universities of Michigan
- Price Waterhouse Coopers Money Tree report
- Senate Fiscal Agency
- State Higher Education Finance
- State Science and Technology Institute
- The Kauffman Index of Entrepreneurial Activity
- The Michigan House Fiscal Agency
- The National Student Clearinghouse Research Center
- The Organization for Economic Co-operation and Development
- The Sloan Consortium
- The White House, Office of Social Innovation and Civic Participation
- U.S. Bureau of Economic Analysis
- U.S. Bureau of Labor Statistics
- U.S. Census Bureau
- U.S. Department of Commerce, U.S. Economic Development Administration
- U.S. Department of Education
- University Research Corridor





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DATES OF NOTE

[*Please contact the President's Office if you would like to attend event.]

2015

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| Sat, Feb 21 | 6:00 pm | *GLMA Alumni Association Annual Dinner and Mariner's Ball – Hagerty Center |
| Mon, Feb 23 | 5:30 pm | Regular Board Meeting – Oleson Center A/B, 1881 College Dr. |
| Fri, Feb 27 | 6:00 pm | Taster's Guild – Hagerty Center |
| Mon, Mar 23 | 4:00 pm | Board Policy Committee Meeting – Great Lakes Campus |
| Mon, Mar 23 | 5:00 pm | SGA Dinner/Regular Board Meeting – Hagerty Center, Great Lakes Campus |
| Tues, April 7 | 12:00pm-1:30pm | *Annual Scholarship Luncheon – Hagerty Center |
| Wed, April 15 | 4:30pm-7:00pm | *Retirement and Recognition Reception, Hagerty Center |
| Mon, April 20 | | Board Policy Committee Meeting |
| Mon, April 20 | 5:30 pm | Regular Board Meeting – Oleson Center A/B, 1881 College Dr. (3rd Monday) |
| Fri, May 1 | 4:45pm-7:00pm | *Honors Convocation, Dennon Museum Center |
| Sat, May 2 | 2:00 pm | Commencement – TC Central High School Gymnasium |
| Wed, May 13 | 8:00 am | *TEDx Traverse City – Milliken Auditorium |
| Sun, May 17 | 10:00 am | NMC BBQ |
| Mon, May 18 | 5:30 pm | Regular Board Meeting – Oleson Center A/B, 1881 College Dr. (3rd Monday due to holiday) |
| Mon, June 22 | 5:30 pm | Regular Board Meeting - Great Lakes Campus Room 112 |
| Thurs, Jul 23 Fri, Jul 24 | | *MCCA Summer Conference – Grand Traverse Resort and Spa |
| Mon, July 27 | 5:30 pm | Regular Board Meeting – Great Lakes Campus Room 112 |
| Thu, Aug 6 | 8:00am-5:00pm | NMC Scholarship Open – Grand Traverse Resort |
| Mon, Aug 24 | 8:00am-11:00am | *NMC Fall Opening Conference – Hagerty Center |
| Mon, Aug 24 | 5:30 pm | Regular Board Meeting – Great Lakes Campus Room 112 |
| Mon, Sept 28 | 5:30 pm | Regular Board Meeting – Oleson Center A/B, 1881 College Dr. |
| Wed, Oct 14 Sun, Oct 18 | | *ACCT Leadership Congress – San Diego, CA |

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| Mon, Oct 26 | 5:30 pm | Regular Board Meeting – Oleson Center A/B, 1881 College Dr. |
| Mon, Nov 23 | 5:30 pm | Regular Board Meeting – Oleson Center A/B, 1881 College Dr. |
| Mon, Dec 21 | 5:30 pm | Regular Board Meeting – Oleson Center A/B, 1881 College Dr. |

2016

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|---------------------|----------------|--|
| Mon, Jan 25 | 5:30 pm | Regular Board Meeting – Oleson Center A/B, 1881 College Dr. |
| Mon, Feb 22 | 5:30 pm | Regular Board Meeting – Oleson Center A/B, 1881 College Dr. |
| Mon, Mar 21 | 5:30 pm | Regular Board Meeting – Hagerty Center, Great Lakes Campus |
| Mon, Apr 25 | 5:30 pm | Regular Board Meeting – Oleson Center A/B, 1881 College Dr. |
| Mon, May 23 | 5:30 pm | Regular Board Meeting – Oleson Center A/B, 1881 College Dr. |
| Mon, June 27 | 5:30 pm | Regular Board Meeting – Great Lakes Campus Room 112 |