The Funding of Michigan Universities
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The Michigan legislature’s recent efforts to implement results-based budgeting provide a worthwhile context for the consideration of higher education funding. More importantly an examination of statewide data can provide insight into how funding can help the state achieve its objective, where,

“People are prepared for jobs and the new economy.”

The current approach to funding higher education has created serious inequities in funding across Michigan. The most commonly used set of data presents the amount of state appropriations per fiscal year equated student (FYES). In the state this ranges from a high $8,951 per student at Wayne State University to a low of $3,217 at Grand Valley State University.

This comparison of state funding, while useful, is conceptually flawed, in that it promotes the assumption that all programs and thereby all students cost the same. A more interesting comparison is to look at state funding as a percent of total revenue. In Michigan this ranges from a high of 51% at Wayne State University to a low of 28% at the University of Michigan – Ann Arbor. Removing research institutions from this comparison still shows a range of state funding from 48% at Northern Michigan University to 31% at the University of Michigan – Dearborn. This is a remarkable disparity among institutions with similar missions.

Even a casual examination of state funding for higher education will suggest that the system is horribly flawed. If Michigan truly seeks to create the results desired it must develop a new approach to funding higher education.

Additional information from this presentation is available at – http://fsunw3.ferris.edu/~eislerd/senate_2005.htm
<table>
<thead>
<tr>
<th>University</th>
<th>Percent</th>
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<tbody>
<tr>
<td>Wayne State University</td>
<td>51%</td>
</tr>
<tr>
<td>Northern Michigan University</td>
<td>48%</td>
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<tr>
<td>Michigan Technological University</td>
<td>45%</td>
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<tr>
<td>Michigan State University</td>
<td>42%</td>
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<tr>
<td>Lake Superior State University</td>
<td>41%</td>
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<tr>
<td>Western Michigan University</td>
<td>40%</td>
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<tr>
<td>Eastern Michigan University</td>
<td>39%</td>
</tr>
<tr>
<td>Saginaw Valley State University</td>
<td>38%</td>
</tr>
<tr>
<td>University of Michigan-Flint</td>
<td>38%</td>
</tr>
<tr>
<td>Central Michigan University</td>
<td>37%</td>
</tr>
<tr>
<td><strong>Ferris State University</strong></td>
<td>37%</td>
</tr>
<tr>
<td>Oakland University</td>
<td>35%</td>
</tr>
<tr>
<td>Grand Valley State University</td>
<td>32%</td>
</tr>
<tr>
<td>University of Michigan-Dearborn</td>
<td>31%</td>
</tr>
<tr>
<td>University of Michigan-Ann Arbor</td>
<td>28%</td>
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</table>
To bring the nine universities below 40% up to a base funding level of 40% would require over $125 million in new funding. It is unrealistic to expect that in the foreseeable future these funds will be available. Further, the magnitude of inequity in current funding for higher education is so large that it can not be repaired for the present.

Instead it is recommended the legislature use the current responsibility-based budgeting process and the funds available through it to influence the behavior of higher education. Through the adoption of three simple, clearly understood funding incentives it is possible to create an approach that “prepares people for jobs and the new economy.”

**Enrollment**

Whether it is through the Cherry Commission Report or the current responsibility-based budgeting process, there is clear agreement on at least one higher education goal. More students should attend college and earn an undergraduate degree. Clearly, one of the significant measures for higher education is enrollment growth. Further this is easily quantified and tracked.

In this context it is incongruous that Michigan is one of the very few if not the only state in the country that does not fund enrollment growth. Universities receive no additional funding for enrollment growth, but instead must fund growth through only through tuition revenues. Essentially this means that enrollment growth is funded sixty cents on the dollar. This is not an approach that fosters the higher education growth essential for Michigan’s future.

The first recommendation is both simple and obvious –

**Fund Enrollment Growth**

Whether it is at $4,000, $5,000, $6,000, or $7,000 for each full-time student, reward and incentivize universities by providing support for enrollment growth. In doing so you will ensure that future generations of Michigan citizens will have access to high quality, public education.
High Intensity Instruction

One of the fallacies of current higher education funding measures, is that they assume that all programs and thereby all students cost the same. It is obvious that the cost of teaching 60 students in a social science course is much less than 12 students in a nursing course. Unless a mechanism is developed to reward universities for programs with high instructional costs, growth will occur in the areas of the lowest cost, rather than the greatest need.

This analysis and accompanying proposals are based upon institutional data available from two sources, the Higher Education Institutional Data Inventory (HEIDI), Michigan’s official State database for higher education information, and the Integrated Post-secondary Educational Data System (IPEDS), the federal government’s official database for higher education.

Using cost data from HEIDI it is possible to develop the average cost for delivering educational programs across the state, and provide an objective basis for comparison. For example in 2003-2004, the average cost for producing one student credit hour (SCH) at the twelve teaching universities across Michigan was $161. Further, using this methodology, HEIDI data average costs can be developed that reflect the intensity of instruction required for each discipline. High cost programs tend to be those requiring special laboratory settings, equipment, and are more “hands on” (high intensity programs); disciplines that are basically lecture courses are lower cost (low intensity programs).

Grouping the various disciplines by average costs helps to describe and define the academic programs provided by Michigan. For this analysis, disciplines were grouped as follows, based upon the average costs of the 12 primarily teaching universities for each discipline.

- High Intensity Instruction: Disciplines with average cost of $200/sch or more
- Medium Intensity Programs: Disciplines with average costs of $150 to $199/sch
- Low Intensity Programs: Disciplines with average cost of less than $150/sch

A listing of the various program disciplines within each category is attached. Programs that prepare people for jobs and the new economy are primarily in the high intensity cost range.

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1 Program discipline costs for Michigan’s three research institutions, the University of Michigan, Michigan State University, and Wayne State University are significantly higher than those presented here. To provide a more accurate comparison, their costs have been excluded from this analysis.
## Intensity of Instruction

### HEIDI Data

### High Intensity
**Over $200 SCH**

- Optometry: $451
- Agriculture, Agricultural Operations: $343
- Engineering: $320
- Nursing: $312
- Pharmacy: $309
- Architecture and Related Programs: $284
- Other Health Professions: $258
- Precision Production: $236
- Computer and Info Science: $236
- Public Admin. and Soc Services: $231
- Mechanical and Repair Technology: $228
- Engineering Technologies: $224
- Health and Medical Assisting: $210

### Medium Intensity
**$150-199 SCH**

- Visual & Performing Arts: $199
- Multi/Interdisciplinary Studies: $185
- Family & Consumer Science: $180
- Physical Sciences: $176
- Personal & Culinary: $169

### Low Intensity
**Less than $150 SCH**

- Biological Sciences: $146
- Foreign Languages: $138
- Parks, Recreation, Leisure: $136
- Legal Prof & Studies: $132
- Security and Protective: $127
- Eng Lang & Letters: $126
- Social Sciences: $120
- Mathematics: $119
- Liberal Arts/Humanities: $112
- Communications: $112
- Area, Ethnic, Cultural Studies: $111
- Psychology: $111
- Philosophy & Religious: $101
- Reserve Officers Training: $100
- History: $96
- Natural Resource & Conserv: $85
- Military Science: $84
High Intensity Degrees

Another easily measurable result of higher education is the number of degrees awarded. Using Intensity of Instruction as a program cost model of approach, it is then possible to determine the percentage of undergraduate and first professional degrees at each institution in the high intensity disciplines.

In Michigan the greatest percentage of high intensity degrees are produced at Michigan Technology University - 74%. Ferris State University is next with 54% of its degrees in high intensity instructional areas. The remaining teaching institutions are in a range from a low of 15% up to a high of 23%.

Unless a mechanism is developed that rewards universities for offering and expanding access to high intensity disciplines, growth will be constrained in high cost areas and forced toward disciplines with lower instructional costs. Sustaining and growing a significant proportion of high intensity degrees will require increased funding.

The second recommendation flows from this analysis and from the goal of “preparing people for jobs and the new economy.”

Fund Results

Create incentives for universities to expand access to degrees in desired disciplines by funding them at a higher weighted rate.

The next chart represents Ferris State University’s contributions to the total degrees awarded state-wide in these high-demand, high-cost disciplines. It also presents the average costs statewide for these disciplines. At a tuition rate of $256 per credit hour, it is difficult to expand access to these areas where students are employed upon graduation.
<table>
<thead>
<tr>
<th>% of Total Michigan Degrees</th>
<th>Cost per SCH</th>
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<tbody>
<tr>
<td>100% Optometry</td>
<td>$451</td>
</tr>
<tr>
<td>98% Precision Production</td>
<td>$236</td>
</tr>
<tr>
<td>Furniture Design, Engineering Graphics</td>
<td></td>
</tr>
<tr>
<td>90% Mechanical/Repair Technologies</td>
<td>$228</td>
</tr>
<tr>
<td>Automotive Body, Automotive/Heavy Equipment Management, Automotive Service Technology, Heavy Equipment Technology, Heavy Equipment Service Engineering Technology</td>
<td></td>
</tr>
<tr>
<td>64% Health/Medical Assisting</td>
<td>$210</td>
</tr>
<tr>
<td>Nuclear Medicine, Radiography, Respiratory Care, Diagnostic Medical Sonography, Dental Hygiene</td>
<td></td>
</tr>
<tr>
<td>48% Engineering Technologies</td>
<td>$236</td>
</tr>
<tr>
<td>48% Pharmacy</td>
<td>$309</td>
</tr>
<tr>
<td>39% Communication Technologies</td>
<td>$221</td>
</tr>
<tr>
<td>Digital Animation and Game Design, Television Production, New Media Printing and Publishing, Printing Technology</td>
<td></td>
</tr>
</tbody>
</table>

This table displays the average cost per credit hour for selected high-intensity instructional disciplines along with Ferris State University’s percentage of all undergraduate and first professional degrees conferred in each discipline. State HEIDI data is the source for expenditures and student credit hour production for each academic discipline used to calculate an average cost per credit for the twelve teaching universities. IPEDS data for degrees conferred is the basis for determining Ferris’ percent of degrees conferred among all fifteen Michigan public universities.
Increase Access to Higher Education

One of the biggest lessons from the deliberations of the Cherry Commission is a simple data set that describes the true challenge for education in Michigan. In the ninth grade, seven out of ten students say they want to attend higher education. Four years later, only four do.

Those three students who indicated an interest in higher education and did not attend, most likely possess one or more of the following characteristics –

- They represent an ethnic minority.
- They come from a poor economic group.
- They are unprepared for higher education.

What future exists for these students? This past week data was released that indicates college graduates earn twice as much as those without a degree. The source of this information? Not some higher education advocacy group, rather the United States Census Bureau. For those students who wanted to attend and did not, the future is bleak or worse.

These are people higher education is not reaching. As high risk students, recruiting them to our campuses will not raise either retention or graduation rates. It will however, help provide the change Michigan both needs and seeks.

Fortunately Michigan already has two very successful programs that are making inroads into these populations. The first is the TIPS program, which has been extraordinarily successful for students on our campus. The second is the King-Chavez-Parks Initiative which helps bring potential students to college campuses and prepares future faculty. We strongly encourage that these efforts be strengthened with consideration to how this unaddressed population, nearly 30% of the graduating class from Michigan high schools be encouraged to attend and succeed in college.

The third recommendation grows from these needs and the strength of these efforts –

**Fund Opportunity**

This is most easily addressed through targeted programs including and similar to those named above.

Conclusion

Why present these proposals at this time? The responsibility-based budgeting approach adopted by the legislature provides the opportunity to step away from the politics of the past and create an approach that with fund higher education for both the present and future. We urge you to consider these three simple proposals –

**Fund Enrollment**
**Fund Results**
**Fund Opportunity**