

Development of a Student Level Data Tracking System: Context, Opportunities, and Challenges

In Response to P.A. 213 of 2008, Section 216

**Presidents Council, State Universities of Michigan
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INTRODUCTION

Section 216 of PA 213 of 2008 mandates the state universities of Michigan to provide a report on the steps that have been taken and challenges associated with the development of a student-level data tracking system. This report discusses the opportunities and challenges of developing a data tracking system from a postsecondary perspective. The report was prepared by the Presidents Council, State Universities of Michigan with the input and cooperation of Michigan's fifteen public universities, in particular, the institutional research directors from each of the universities.

In the report, we answer both questions posed in the legislation. The first section will explore those efforts undertaken as a group to evaluate potential opportunities for increased data access. The second section explores the challenges associated with the development of a student data tracking system, from a postsecondary perspective. We preface this by recognizing the state of Michigan faces declining revenues, troubling levels of unemployment, and uncertainty in some of our most important industries. In this environment, we understand the challenges the state will face in providing adequate support for public schools, community colleges, and universities. Education is absolutely critical for Michigan's economic revival, yet budget constraints over the last several years have forced the State to make difficult choices, some of which have negatively affected its universities. Every indication suggests that the pressures on all public activities within the state will only increase over the next two to three years. For these reasons, and in consideration of the many effective efforts already underway as described below, we believe a proposal for a statewide student data tracking system should take a lower priority at this time. We do, however, believe there are legitimate data related questions in the near term that could be addressed in ways beyond the creation of a statewide data tracking system.

STEPS BEING TAKEN BY THE PUBLIC UNIVERSITIES

We recognize that data is essential to making informed decisions regarding the support of public priorities and it is with this in mind that we have, for the past year, explored internally a number of ways data could be brought to bear in ways that tap into existing resources and minimize added expense. It is our belief that a good deal of data are currently available in many forms and every attempt should be made to use existing sources. Examples include IPEDS (Integrated Postsecondary Education Data System), HEIDI (Higher Education Information Data Inventory), NSC (National Student Clearinghouse), and more recently VSA (Voluntary System of Accountability).

On the national level, Michigan's public institutions report student information to the Integrated Postsecondary Education Data System (IPEDS) that is maintained by the U.S. Department of Education and available to the state of Michigan. Data submitted to IPEDS include, but are not limited to, student enrollment, program completion, graduation rates, faculty, staff, college finances, institutional prices, and student financial aid. The advantage of the IPEDS data is that every institution – public, private, two-year, and four-year – that receives federal support in any way is required to report annually. In a similar fashion, the public universities in Michigan also gather aggregated data for the fifteen institutions through Higher Education Information Data Inventory (HEIDI). These data are similar to many of the elements reported to IPEDS with the important exception that these data are updated and edited to provide the most accurate picture for the state of Michigan. Most lawmakers are already familiar with this source as the House and Senate Fiscal Agencies regularly report on this information.

A second national source of data is available for more than 90% of all institutions. All fifteen public universities in Michigan provide enrollment and completion data to the National Student Clearinghouse (NSC), a non-profit organization that maintains a registry of student records for enrollment, diploma, degree, and loan verifications. The NSC partners with institutions to provide all of their enrollment status information, particularly for those providing financial aid. The advantage of this data is that it allows one to examine the patterns students follow while they are in school. This is particularly important if we hope to gain a more accurate sense of postsecondary success among

Michigan students. It may be the most comprehensive individual level student data available. In Michigan, as many as 26 of the 28 community colleges participate as well. The additional advantage, as will be explored below, is that the data are available to every participating institution for no additional fee. NSC has earned the trust and respect of postsecondary institutions across the country.

Over the past two years, nearly half of our institutions have signed on to or are in the process of participating in the Voluntary System of Accountability Program (VSA), a system that provides “consistent, comparable, and transparent information on the characteristics of institutions and students, cost of attendance, student engagement with the learning process, and core educational outcomes,” and allows for students and their families to better understand how colleges and universities operate. This relatively new voluntary system is a shared effort by the American Association of State Colleges and Universities, the National Association of State Universities and Land-Grant Colleges, and the overall public higher education community. The VSA or “College Profile” is a reporting tool that provides uniform and comprehensive data to students, their parents, and other consumers of higher education information. Its strength is clearly the uniform reporting structure. It allows for clear comparisons between institutions on a range of measures from cost to enrollment to completion.

Our universities are data intensive institutions and are always looking for ways to improve the flow of information. For the past two years, more than 2/3 of our institutions have been working with ConnectEDU to facilitate the electronic transfer of transcripts from high school to colleges, which is increasingly becoming the preferred method of transcript delivery. For example, Michigan State has received nearly 800 transcripts electronically so far this year. This comprehensive solution unites colleges and high schools to change and track the way students approach the college planning process. To date:

- There are 15 Michigan colleges and 244 Michigan high schools in Network.
- 55 high schools are now fully deployed and able to send transcripts electronically.
- The number of electronic transcripts sent/received has grown by over 500 percent from last year.
- Statewide, the number of transcripts delivered for the current cycle is anticipated to be over 10,000.

- 219 high schools guidance counselors have been trained
- 15,220 students are registered and actively utilizing the ConnectEDU platforms – Connect! & PrepHQ

The potential for answering important educational questions utilizing electronic transcript data has not yet been fully explored, but it is clearly a developing data management tool in the state of Michigan that may help provide some answers without adding to the cost burden of the high schools or colleges.

Finally, our organization, the Presidents' Council, State Universities of Michigan has engaged in a collaborative project to test one method to develop a data system from existing data sources to answer a number of important questions related to college access. The Presidents Council, State Universities of Michigan (PCSUM) is currently collaborating with the National Center for Institutional Diversity (NCID) at the University of Michigan, which has received funding from the Ford Foundation to conduct studies of educational preparation, college enrollment, and persistence in Michigan. The study focuses on examining the relationship between high school preparation and college success. In order to conduct this study, the project team is utilizing data from two existing data sources that Michigan public institutions can access. The first source would be the ACT data including the supplemental survey; a robust data source for the state now that 100% of students participate. The second source is the National Student Clearinghouse's (NSC) StudentTracker data that provides information on initial enrollment and persistence patterns for the cohorts under investigation.

While this study is an important project on its own merits, it also has the potential to make a larger contribution toward a student data system for Michigan that is informed and shaped by postsecondary education, minimizing the need for new data collection efforts, providing methods for using the data in a productive and instructive manner, and determining the potential for developing capacity on Michigan campuses to use this data to inform strategic planning efforts.

QUESTIONS THAT NEED TO BE RAISED

A number of questions have emerged from key stakeholders about the role, purpose, and possibility of creating a student data system. These observations come from those who would be responsible under state and institutional policy for implementing such a system---individuals who already are involved in state of the art solutions to the issues such a system would seek to address. In February 2008, Michael A. Boulus, Executive Director of the Presidents Council, State Universities of Michigan testified before a joint House and Senate committee and posed the first series of questions regarding the development of a data tracking system. Notably, he asked:

1. What sorts of information are you interested in collecting?
2. What is the purpose of collecting that data?
3. Is that data available from other sources?
4. What would it cost to collect this sort of data?
5. Where would the money come from to create the system?

Michigan's public universities, based on their own experiences with similar efforts across our state and elsewhere in the country, have since offered additional observations and questions:

- How will the system interface with current state and federal student enrollment reporting systems? HEIDI? IPEDS? National Student Clearinghouse?
- How do institutions report students enrolled at multiple institutions and sometimes concurrently?
- How do institutions manage and maintain duplicate student records within systems on a statewide basis?
- How do institutions handle students who transfer in and out of other states?
- How often will the data be gathered?
- How will the data be reported?
- What are the data reporting mechanisms to be used?

These are important questions that should be answered before any large scale effort is initiated.

CHALLENGES THAT NEED TO BE ADDRESSED

While the creation of a P-16 tracking system appears to offer potential for improving the assessment of Michigan's students' growth and progress, there are several important challenges that must be addressed. In particular; the quality of the data; the maintenance, accuracy and integrity of the data; tracking students in the private sector; tracking student in- and out-of-state; software and technology limitations; use of the student's unique identification code (UIC); the associated costs of such an effort; and the possibility of such an endeavor becoming an "unfunded mandate."

Security/Confidentiality concerns

In the interest of maintaining the privacy of personal data, the Family Educational Rights and Privacy Act (FERPA) severely limits higher education institutions from exchanging and releasing educational information on individuals without their prior consent. While the state of Michigan could create separate laws and policies that protect personal privacy, we must acknowledge the serious responsibility we have to our citizens to present a clear and compelling rationale for collecting personal information and a clear statement of the purpose and intended use of such information. Moreover, it must determine in advance how to maintain the security of the data collected and establish policies to regulate who has access to the information and to what end.

Quality of the data

There is currently no standardization in student databases across postsecondary institutions. This reality at the very least suggests that there may be limitations on the consistency of the data collected as each institution may have different interpretations to what should be submitted. Correcting for such limitations would require painstaking and expensive cross-tasking efforts between the postsecondary institutions and the state.

The Maintenance of Accuracy of the Data

Tracing students' education paths is extremely complicated due to options such as dual college enrollment, and transfer to and from out-of-state and international institutions. Obtaining and consolidating student reports would be difficult and costly, while creating and maintaining this

database would be an ongoing process. Data would need to be gathered regularly (i.e., once a semester or once a year) to determine where students are enrolled.

Tracking Students in the Private Sector

A serious gap in implementing the proposed system is posed by the independence of Michigan's private higher education sector. While the state can mandate compliance from the public universities and community colleges in the state, will private and proprietary institutions in the state participate? With over 90,000 undergraduates enrolled at private colleges in Michigan, this could lead to a substantial and non-random gap in the state's information about its students who continue education after high school.

Tracking Students In- and Out-of-State

Another gap would stem from the state's inability to track students who leave the state for all or part of their postsecondary education. Similarly excluded would be those students from outside of Michigan that the state universities successfully attract.

Software and Technology Limitations

There are serious technical barriers that would be expensive to solve without additional resources. Each educational institution uses different software and different technological processes for maintaining their student data. In many cases, the sharing and reporting of data to a central system might be a difficult issue because of software incompatibility and technological incapability.

Using the Student's UIC

Many students (nonresidents, home-schooled, and privately schooled students in particular) may not have a unique identification code (UIC). In fact, it appears that some Michigan high schools are not currently reporting the student's UIC on their transcript. At this point, it is unclear how institutions should handle these students or how this missing information will impact the state's analyses and data tracking system.

Associated Costs

Any assessment of the costs of this enterprise must include not only the direct financial costs to the state of initial design and start up and ongoing maintenance, but the additional burden placed on Michigan universities that are already faced with significant reporting requirements to state and federal

agencies as well as to numerous accrediting bodies. If experience is any guide, these reporting responsibilities require hundreds of hours of effort per year to complete. Before the state mandates new, additional reporting requirements, we should look carefully at the entire set of current state reports and the existing data sets available for tracking purposes with a view to streamlining and consolidating efforts where appropriate.

Becoming an Unfunded Mandate

Without a clear design of how this data system will be paid for, we are concerned that proposed data collection and reporting could become an “unfunded mandate,” as the Michigan State Supreme Court has ruled in a case involving our K-12 counterparts and CEPI. In difficult economic times, this will take resources away from our ability to meet our mission. Any such effort should, to the extent possible, not require major programming changes, and also provide information useful to the institutions as well as meet other accountability purposes.

KEY ELEMENTS TO A VALUABLE SYSTEM

If the state of Michigan were to adopt a P-16 student data tracking system, we have identified key elements that would be necessary for its establishment. These elements include:

Clearly defined purpose and goals – A newly developed system must have a clearly defined purpose and goals to fulfill the needs of what is required to be collected. Specifically, this would involve answering the following questions: What are the questions that have prompted the development of the system? What data are available that can answer these questions? Do the data already exist? Can the data be collected consistently across all institutions? Can common, consistent definitions be developed that meet the needs of the users?

Membership – Such a system should include all community colleges as well as college and universities in the independent sector.

Advisory group – This group should consist of data providers and data users. It should have

representatives who understand the various data, as well as representatives familiar with the needs at the state level. Ideally, this group should have the decision-making responsibility for the direction of the system.

Data Elements – Data elements to be collected must be clearly and unambiguously defined and consistent with data that is already being collected by the various institutions.

Development of Policies and Procedures – As with any system or reporting currently developed by higher education institutions and/or required by the state, policies and procedures must be in place to determine how the data are to be used and to guarantee data security.

Dedicated resources – Adequate staffing and budget should be dedicated at the state level to support the data system and provide program oversight. Alternatively, resources to house and support the system should be identified and committed. Adequate funding should be made available to the institutions providing the data in recognition of the additional work required to support the system.

Process for evaluation – A process should be established that regularly evaluates whether the system is meeting the goals. The process should include an audit component to ensure the data integrity and reporting ability.

Security and Privacy – Adequate security measures should be in place to protect the student data. Policy should be developed to control who has access to the data, and to ensure compliance with current privacy laws, allow for individuals to know what is being collect and permit request of their personal information. Ideally, a security committee is established to develop and administer these policies.

Robust opportunities for research to promote efficiency and access – A website should be developed with query tools for education institutions to access data for planning and student service activities.

DEVELOPING ANY SYSTEM MUST BE A COLLABORATIVE EFFORT

Any data system developed in Michigan should be constructed from a postsecondary perspective. We believe that it will be critical for the state, the public universities, community colleges, independent college and universities, and our K-12 system to work as partners in designing and implementing any unit tracking system. Together we can better resolve our concerns and ensure that resources deployed are both useful and beneficial to students and strategic planning efforts.