



## The Key Ingredient: Data is Crucial to Building Michigan's Workforce System

**M**ichigan needs to build its workforce. While much attention is given to the state's high unemployment rate, there is another problem that threatens our economic well-being: the large number of workers who lack occupational skills. Michigan must undertake a strategy to ensure that those who are now unemployed, underemployed, or earning wages insufficient for their needs have the skills necessary for employment in the changing economy. In addition to raising the employment prospects of many workers and their families, this will help businesses meet their workforce needs and help the Michigan economy to become stronger and more competitive.

*A successful workforce strategy needs reliable and complete information. A P-20 data system is being developed in Michigan and has been championed by Gov. Rick Snyder. However, to enable the state to serve its adult learners and measure the success of its postsecondary and workforce development programs, the right data must be collected, aggregated and synthesized, and meaningful benchmarks must be established to determine what is considered success. This paper outlines what postsecondary education components are necessary for a comprehensive P-20 data system that can be used to evaluate the effectiveness of Michigan's adult learner programs.*

In Michigan's recent past, a high school diploma was enough to help a worker get secure and gainful employment in the manufacturing sector, particularly in the automobile and automobile parts industries. Times have changed, and the emerging labor market will demand specialized skills acquired only through some form of postsecondary training and signified by a recognized postsecondary credential.<sup>1</sup>

Projections show that in 2018, 62 percent of all jobs in Michigan (2.9 million jobs) will require some postsecondary training beyond high school.<sup>2</sup> Job growth between 2008 and 2018 will be concentrated in such jobs—116,000 will require postsecondary training, 18,000 will require only a high school diploma and 4,000 will not require a high school diploma.<sup>3</sup> Another study shows that Michigan needs to add 53,574 more adults

<sup>1</sup> The term "postsecondary credential" in this report refers to not only a two- or four-year college degree, but also a recognized occupational certificate.

<sup>2</sup> Carnevale, Anthony, Nicole Smith, and Jeff Strohl, *Projections of Jobs and Education Requirements through 2018*, Georgetown University Center on Education and the Workforce, June 2010.

<sup>3</sup> Carnevale, et al.

with college degrees to its workforce in order to reach the level needed for international competitiveness.<sup>4</sup>

Developing strategies to connect workers with postsecondary occupational training is challenging enough. In 2009, 9.5 percent of Michigan workers aged 25-54 (prime working age) lacked a high school diploma, 28.6 percent had only a high school diploma and no postsecondary education, and an additional 25.8 percent had some postsecondary education but no degree. In other words, 64 percent of Michigan working-age adults possessed less than a two-year degree.<sup>5</sup>

Michigan’s problem is further complicated by the fact that many workers lack the basic mathematics, reading and writing skills needed to enter occupational

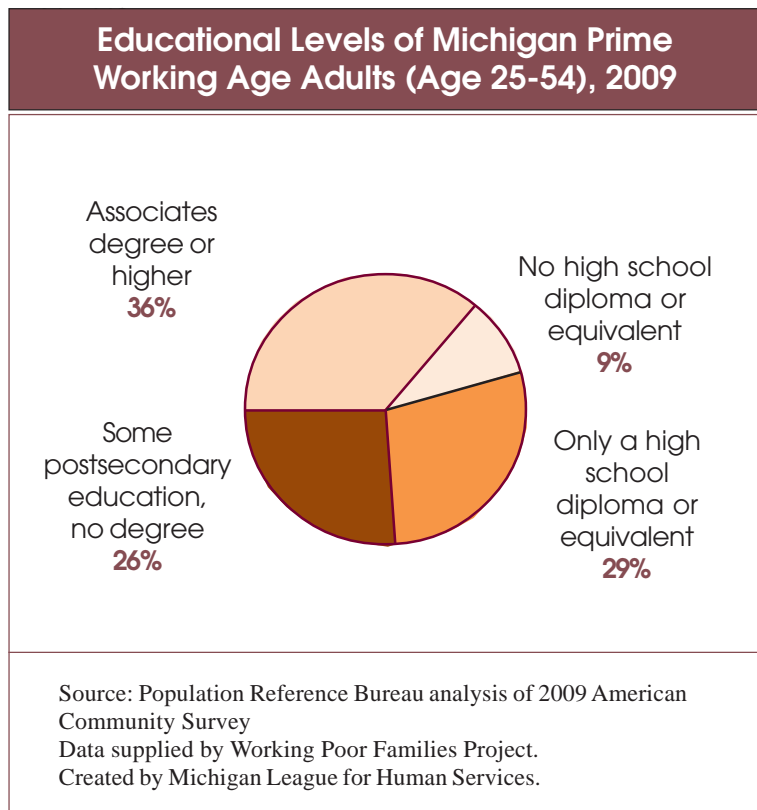
training or higher education. A recent report states that as many as 1.7 million working-age adults in Michigan, with or without a high school diploma, lack the basic skills necessary to enter into or successfully complete postsecondary occupational training that leads to employment.<sup>6</sup> Without state programs that effectively build basic skills, the opportunities for these workers to obtain a job providing economic security and mobility are limited.

This basic skills deficit not only threatens the economic well-being of individual workers and their families, but of the state as well, as businesses usually prefer to start and grow in areas that have a skilled workforce. The need for state action to prepare workers to meet the future demands of the job market is obvious and must include a focused, long-term investment in addressing basic and occupational skills needs.

Michigan has already begun such action, by implementing No Worker Left Behind to address occupational skills needs and No Worker Left Behind: Everybody In! to address basic skills needs of its adult workers. However, Michigan is in a dire situation in which the emerging economy requires skills that far too many workers lack. As such, the state needs to double its intention and commitment to developing a comprehensive strategy for preparing its workforce for the future job market. No Worker Left Behind, No Worker Left Behind—Everybody In!, and the many other basic and occupation skills training programs need to be strengthened, and to do so requires that we be able to set goals and measure the success of these programs and adult learner progress.

As it stands now, Michigan does not have the tools or information it needs to undertake such a strategy. It lacks much of the necessary

Figure 1



<sup>4</sup> Report of the National Commission on Adult Literacy, *Reach Higher America: Overcoming the Crises in the U.S. Workforce*, June 2008. <http://www.nationalcommissiononadultliteracy.org/ReachHigherAmerica/ReachHigher.pdf>

<sup>5</sup> Population Reference Bureau analysis of 2008 American Community Survey. Data supplied by the Working Poor Families Project.

<sup>6</sup> Michigan Department of Energy, Labor and Economic Growth, *Transforming Michigan’s Adult Learning Infrastructure: A Report to the Council for Labor and Economic Growth from the CLEG Low-Wage Worker Advancement Committee’s Adult Learning Work Group*, 2009. [http://www.michigan.gov/documents/mdcd/MI\\_Adult\\_Learning\\_Report\\_288772\\_7.pdf](http://www.michigan.gov/documents/mdcd/MI_Adult_Learning_Report_288772_7.pdf)

individual and aggregate data on programs and individuals and, outside of K-12, it does not currently have systems in place to collect complete data. Michigan needs a well-designed and well-supported

state longitudinal data system with benchmarks in order to constantly evaluate and improve the way it serves its adult learners.

## Why Michigan Needs a Comprehensive Education and Workforce Data System

### **The Leaky Pipeline**

When a cohort of students enters the ninth grade, we know that some of them will go on to complete high school, begin college or other postsecondary education, attain a degree or certificate, and join the workforce in the field for which they studied. We also know that many will drop out of this sequence at various points. These points of attrition can be called “leaks in the educational pipeline.” The challenge for education and workforce policy is first to understand where and why the pipeline leaks are occurring, and then to devise a two-prong strategy to prevent future leakage and to assist those who have already dropped out to re-enter and successfully complete the educational sequence.<sup>7</sup>

Data from the National Center for Education Statistics (NCES) provides useful information by which a pipeline illustration can be constructed, as shown in Figure 2.<sup>8</sup>

The pipeline illustration uses available data to show that roughly 2 percent of students beginning ninth grade will graduate from high school four years later and then graduate from a two-year college within three years, and 16 percent of the ninth graders will graduate from a four-year college within six years of high school

completion. The pipeline points to some important leakage points, and it is apparent that too many students are dropping out before successfully attaining a two- or four-year postsecondary credential.

The NCES data on postsecondary persistence and success, while useful, is limited. It leaves many questions unanswered and many students and their circumstances unaccounted for, i.e., it does not collect

or aggregate needed information on students who transfer across postsecondary institutions, part-time students, low-income students or those who are in developmental education.<sup>9</sup> It provides no indicators on those who enter postsecondary education through the Michigan Works! Agencies or the corrections system, nor does it indicate whether students have participated in adult education. It is also unable to tell us about student success in the labor market after the attainment of a credential.

With a comprehensive state longitudinal data system, such information would be available in Michigan. Unfortunately, the data needed in Michigan to devise and maintain a good system of adult learning has been unavailable, incomplete, confusing, or incompatible with other existing data. Some important data is not being collected, and there are firewalls preventing the sharing of data across certain state

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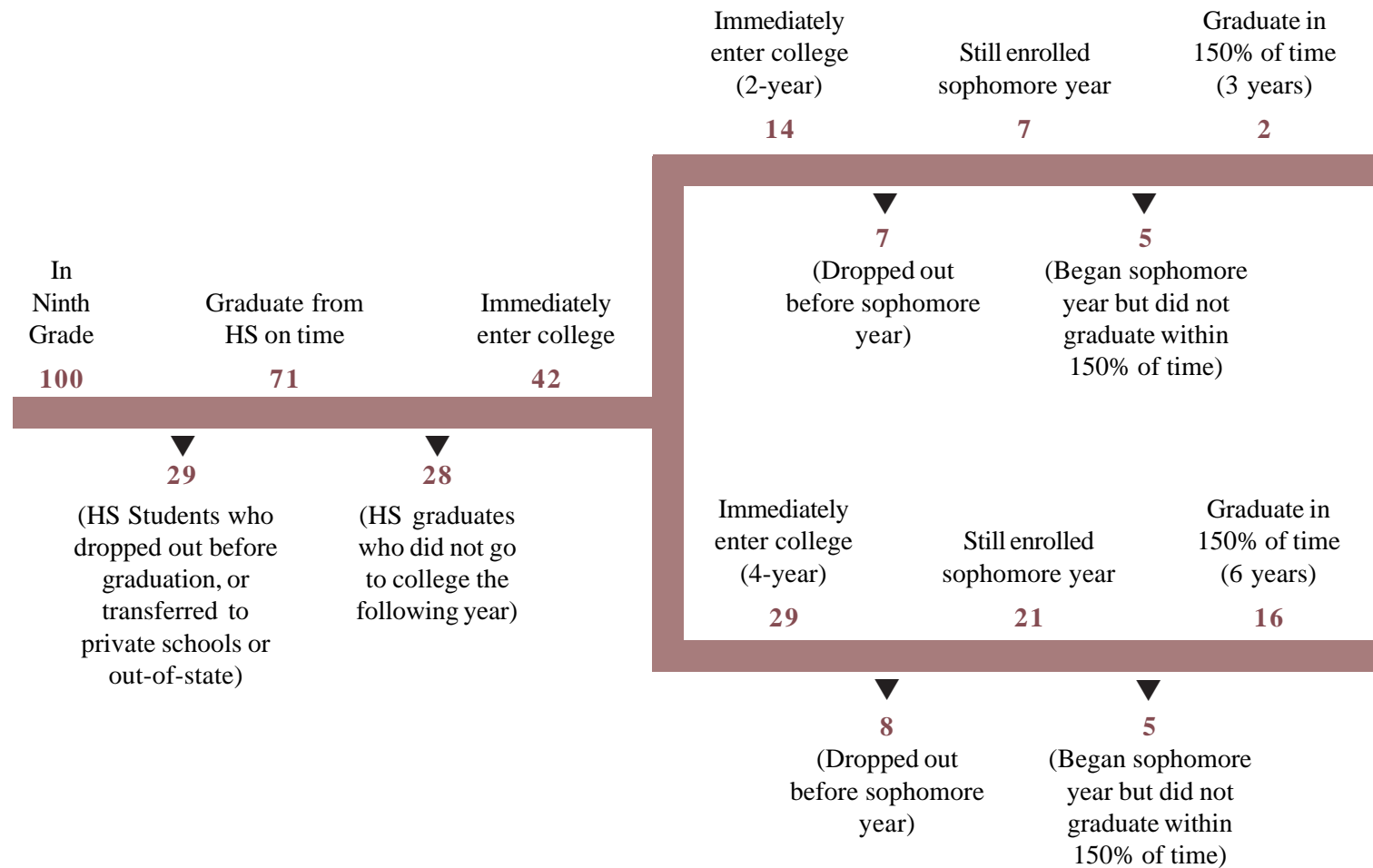
<sup>7</sup> The Michigan League for Human Services previously explored the “leaky pipeline” concept in more detail in *Fixing the Leaky Pipeline: Why Adult Education and Skills Training Matters for Michigan’s Future* (June 2007).

<sup>8</sup> U.S. Department of Education, National Center for Higher Education Management Systems, using data from the National Center for Education Statistics’ Integrated Postsecondary Education Data System (IPEDS). Website: <http://www.higheredinfo.org> (Accessed on December 13, 2010.)

<sup>9</sup> Reyna, Ryan, *Complete to Compete: Common College Completion Metrics, NGA Center for Best Practices*, June 2010.

Figure 2

### Michigan's Leaky Pipeline, 2008: Where Did Students Drop Out of the Education System Before Attaining a Credential?



Source: National Center for Higher Education Management Systems (NCHEMS), using data from the National Center for Education Statistics' Integrated Postsecondary Education Data System (IPEDS). Website: <http://www.higheredinfo.org/dbrowser/index.php?submeasure=119&year=2008&level=nation&mode=data&state=0> (Accessed on December 13, 2010.)

Note: The calculation for high school graduation does not account for transfers to private high schools and out-of-state. The calculation for college graduation does not account for transfers across institutions.

## **The Challenge: Tracking Nontraditional Students**

A longitudinal data system will be relatively easy to put in place for students who follow the “traditional” model for postsecondary education, in which a student enrolls in a full-time two- or four-year degree program immediately after high school graduation and attains the degree within four years (for a two-year degree) or six

years (for a four-year degree). It will be more challenging to develop a system that measures the educational progress of “nontraditional” adult learners who have been out of the educational system for a substantial period and who often attend school part-time while working either part-time or full-time (and in many cases have families to support). Nontraditional students are often defined as those who are 25 years of age or older, comprising 40 percent of public two-year college students and 39 percent of all

postsecondary students in the United States today.<sup>13</sup> They also constitute 30 percent of Michigan community college students in developmental education.<sup>14</sup> The significant size of this population makes it imperative that it be aggregated in a state data system.

The challenge in designing a state longitudinal data system is taking into account the multifarious paths taken by nontraditional postsecondary education

students, and pulling illuminating data at critical points in these paths. Some nontraditional students have a solid job history (such as workers who have been employed in manufacturing for many years with only a high school diploma), while others have been employed only sporadically or are homemakers returning to the workforce. Many are supporting families and have to factor in child-rearing responsibilities, child care and

school expenses. Some have been referred through the corrections system or the Family Independence Program. Many are low income or in poverty.

To give a comprehensive picture of aggregate success, longitudinal data must not only follow each student from K-12 into postsecondary education and the workforce, but must also incorporate data from adult education, public assistance, corrections and workforce development systems.

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state will get a better picture of how well the systems work, and be better able to implement changes that help them more effectively prepare the workforce. To do this effectively, Michigan must link and synthesize an array of systems, track individual students as they make their way through these systems and into the workforce, and capture meaningful data at specific points in each student’s sequence of participation.

## **Keys to a Strong P-20 System**

Michigan has indicated that it wants to link various systems and in some cases gather more information from within systems. Two concepts to keep in mind when gathering data to improve adult basic education and occupational training are: 1) go beyond the concept of the linear educational sequence, and 2) collect

information that is currently not collected, but is crucial for measuring the progress of adult learners and evaluating the delivery systems that serve them.

Keeping these concepts in mind will help us determine both what is needed and what is considered success.

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<sup>13</sup> U.S. Department of Education, National Center for Education Statistics, *2009 Integrated Postsecondary Education Data System (IPEDS)*, Spring 2010. ([http://nces.ed.gov/programs/digest/d10/tables/dt10\\_201.asp](http://nces.ed.gov/programs/digest/d10/tables/dt10_201.asp))

<sup>14</sup> Michigan Office of the Auditor General, *Performance Audit of Developmental Education at Michigan Public Community Colleges*, May 2009.

### **Key #1: Go Beyond the Linear**

There is a tendency to think of P-20 as a one-directional sequence in which each connected system (preschool, K-12, postsecondary, workforce and employment) is mutually exclusive. This approach might adequately provide needed information for traditional students, but it will leave out information that is needed to improve systems and outcomes for those who take nontraditional paths. In a strong but linear P-20 structure, the following data systems would be linked:

- Early childhood education programs
- All K-12 schools, both public and private
- All state-funded postsecondary educational institutions
- All private colleges and proprietary institutions (participating in the data collection system should be a requirement for allowing students at these institutions to receive state financial aid)
- The Michigan Unemployment Insurance Agency, which keeps unemployment, occupation and wage records

Connecting only these components in a longitudinal data system would certainly give us more information than we have today, but will not tell us about adults who have taken non-traditional education paths—workers who are and will continue to be a foundational part of Michigan’s economic future. These adults may have gone through the adult education system or have received training as part of their public assistance work plan or while incarcerated. While it would provide information about those who enter community college coursework, it would not indicate the number and percentage of those students who are unemployed or underemployed adults participating in No Worker Left Behind. The skill-building success of such adults is as crucial to Michigan’s economic future as that of traditional students.

A strong P-20 system will go beyond the traditional linear sequence and link data from an array of systems not associated with traditional students, including:

- All adult education programs (adult basic education, adult secondary education, and English as a second language) funded by WIA Title II and Section 107 of the School Aid Fund
- Michigan Works! Agencies (which serve adults using federal funds such as WIA Title I, Wagner-Peyser, and Trade Adjustment Assistance for training programs such as No Worker Left Behind, and provide employment and training services for public assistance recipients in the Jobs, Education and Training program)
- All adult education programs in the Michigan Department of Corrections (these include those funded by Youthful Offender grants and Michigan Prisoner Re-entry Initiative grants in addition to WIA Title II and Section 107 of the School Aid Fund)

In proposals and work plans submitted for the longitudinal data system grants, and in responses to a Data Quality Campaign Survey (as seen in Figure 3), Michigan has indicated that it plans to link most of these systems by 2012-2013. The survey did not address connections with adult education in the corrections system or human services. These plans need to be supported financially and administratively to ensure that the state can follow through.

### **Key #2: Drill Down**

Just as we must be willing to “go beyond” the conventional P-20 concept by extending the array of systems from which we draw data, we must also make the effort to “drill down” within the systems we have in order to capture necessary but heretofore overlooked information. When students transfer across programs and institutions, for example, that information is usually not reflected in aggregate data. When adult learners in bridge programs participate in adult basic education concurrently with occupational training, that story is similarly left untold.

One important example of the need to drill down is Michigan’s current inability to collect adequate data on

Figure 3

Schedule of Planned Connection Among Data Systems							
There are plans to connect...		With...	By 2010-11	By 2011-12	By 2012-13	After 2012-13	No plans
K-12 Systems	Postsecondary	All public two- and four-year institutions	*				
		Some independent institutions		*			
		Some proprietary institutions			*		
		All proprietary and independent institutions					*
K-12 and Postsecondary Systems	Workforce	Adult Basic Education		*			
		WIA Adult/Dislocated Worker			*		
		WIA Youth				*	
		Trade Adjustment Assistance				*	
		Wagner-Peyser Act Employment Services				*	
		Unemployment Benefits Claim Data					*
		Unemployment Insurance Wage Records					*

Source: Data Quality Campaign, Data for Action, 2010. Website: <http://www.dataqualitycampaign.org/stateanalysis/states> (Accessed on February 17, 2011.)

community college developmental education.<sup>15</sup> If Michigan were able to collect comprehensive statewide data on referrals to, enrollment in, and successful completion of developmental education classes, it would be able to design more effective strategies, programs and systems to help students in those classes persist and succeed in college. It would also be able to more effectively design systems to integrate developmental education with occupational training. Yet Michigan is the only Midwestern state that does not

collect and monitor this data on a statewide level (Figure 4).

Michigan is the only Midwestern state that does not collect and monitor community college developmental education data on a statewide level.

Another area in which a P-20 data system must “drill down” is differentiating between part-time and full-time students. As discussed previously, many nontraditional students go to school part time because they are either employed, raising families or both. As such, the data system must take into account students attending part time, even if they are taking only one class.

<sup>15</sup> The term “developmental education,” as used in this paper, refers to courses that a college student is advised or required to take in order to prepare the student for college-level classes. Students must pay college tuition for these courses, but they do not count toward a degree or certificate.

Figure 4

Measuring Community College Developmental Education in Midwestern States		
State	Is state able to monitor and assess progress/completion of developmental education students?	Percent of community college students requiring developmental education
Indiana	Yes	70%
Minnesota	Yes	45%
Ohio	Yes	43% (Math) 35% (English)
Wisconsin	Yes	30%
Illinois	Yes	27%
Michigan	No	N/A

N/A = Not Available  
Source: Education Commission of the States, Community College Policy Center, 2002  
Data Provided by Working Poor Families Project

## Defining Success

Equally important to determining the information needed is determining the outcomes desired. For this purpose it is useful to establish benchmarks against which the data is measured, to determine whether the state is doing as well as it could in improving the systems of adult learning. For example, is it considered satisfactory if 65 percent of nontraditional students attain a credential within 150 percent of the time (i.e., acquiring a two-year degree within three years)? What constitutes an acceptable length of time for students to spend in developmental or basic skills programs? And is it acceptable for students to spend time and money in developmental or basic skills programs but never complete a credential or certificate?

Benchmarks are the tools that enable Michigan to identify success. But as with determining the data to be collected, establishing appropriate and effective benchmarks for adult learners requires “thinking beyond the linear” and “drilling down.” One example is in how persistence is measured. Normally the

benchmarks revolve around return from one year to the next, but for part-time students, constructing benchmarks around the attainment of a specific number of credits may tell us more than constructing them around school years.

### ***One Approach to Asking the Right Questions: Milestones and Momentum Points***

The first step in determining which data needs to be collected is to know which questions need to be answered. One approach to this is outlined by the Community College Research Center (CCRC), which says that measuring student success requires going beyond the conventional “terminal accomplishments” such as attainment of a credential; it also requires the establishment of, and monitoring student progress through, significant *milestone events* and *momentum points*.<sup>16</sup> Milestone events are defined as “measurable educational achievements that include both

<sup>16</sup> Leinbach, D. Timothy and Davis Jenkins, *Using Longitudinal Data to Increase Community College Student Success: A Guide to Measuring Milestone and Momentum Point Attainment*, Community College Research Center, Columbia University, January 2008.



conventional terminal completions, such as earning a credential or transferring to a baccalaureate program, and intermediate outcomes, such as completing developmental education or adult basic skills requirements.”<sup>17</sup> Momentum points are “educational accomplishments [that] can provide ‘momentum’ that propels students toward the achievement of milestone events” and their attainment is “associated with a higher probability of achieving a milestone.”<sup>18</sup>

Setting benchmarks based on milestones and momentum points factors in the many starting points for postsecondary education and the many paths taken by students. It assumes that groups of students share the same end goals (i.e., a particular occupational credential) even though they are taking various paths

and some students need more time to attain it than others.<sup>19</sup>

When setting benchmarks for defining success, Michigan may want to determine what constitutes milestones and momentum points for specific demographics and circumstances of students, particularly low-skilled adult learners with various external challenges (such as work and family responsibilities or low financial resources). In the process, it would be helpful to consider the specific milestones and momentum points established by CCRC in its study of the community college data in Washington, a state with a comprehensive longitudinal data system (see Appendix 1).

## Recommendations for a Comprehensive P-20 State Data System

The following recommendations are intended as a starting point to the development of an improved state data system that will enable gathering, aggregating and sharing of useful information on adult learners. Such information will, in turn, guide Michigan in facilitating adult learning program and systems improvement.

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### **Recommendation 1: Expand the current K-12 Unique Identifier Code across state systems**

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In order to have a complete picture of an individual student’s progress and to be able to aggregate and synthesize data for the thousands of Michigan’s students, Michigan needs to establish a unique identifier that follows individuals through the educational and workforce sequence. Michigan’s K-12 system has the Unique Identifier Code (UIC) that is noted for its comprehensive collection and aggregation abilities. The identifier is not currently linked with other systems, although plans are in the works to link this identifier with public postsecondary institutions and some parts of the workforce system.

The state of Michigan indicated in the Data Quality Campaign survey that, although it plans to connect the P-12 records of individual students to respective records in the public higher education and workforce systems, it is currently seeking clarity on the application of federal privacy laws to state longitudinal data systems.<sup>20</sup> This valid concern can be addressed and has not stopped other states from moving forward. (There are resources on privacy at the end of the paper that may be helpful.)

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### **Recommendation 2: Collect data that identify which educational services are effective for low-skill adults and make it publicly available.**

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A well-designed longitudinal data collection system, by telling the story of each individual’s educational progress, will shed light on the effectiveness of the state education and workforce systems. Through aggregation, such a system will be able to provide a picture of which programs are successful for different types of students. It will let stakeholders and policymakers know where the leaks are in the pipeline,

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<sup>17</sup> Leinbach and Jenkins, *ibid.*

<sup>18</sup> Leinbach and Jenkins, *ibid.*

<sup>19</sup> Leinbach and Jenkins, *ibid.*

<sup>20</sup> Data Quality Campaign, *Data for Action*, 2010. Website: <http://www.dataqualitycampaign.org/stateanalysis/states> (Accessed on February 17, 2011.)

## Recommendations for Incorporating Postsecondary and Workforce Data into Statewide Longitudinal Data Systems (Working Poor Families Project)

### 1) Follow the educational progress and labor market outcomes of all adult students and workers:

- Within postsecondary institutions, this means nontraditional students such as those attending part time, taking noncredit occupational courses, and assigned to development education. This also should include any students who have dropped out.
- Within adult education programs, this means all participants enrolled in adult basic education, adult secondary education, and English language programs across the state.
- Within skill development programs, at a minimum this means all participants enrolled in Workforce Investment Act Title 1 (which includes youth, adult, and dislocated workers), Trade Adjustment Assistance, Temporary Assistance for Needy Families training, and correctional education.

### 2) Track and measure the educational and skills development progress, completions, and outcomes of all participants:

- Measure and report student/participant progress within programs and institutions such as the progression of postsecondary students from course to course, year to year, noncredit to credit programs, and developmental education to credit courses.
- Measure and report on student/participant transitions across programs and institutions, such as adult basic education or Title I participants moving into postsecondary developmental education, or noncredit and credit courses/programs as well as transfers from program-to-program.
- Measure and report student/participant completions and outcomes for programs and institutions, including the achievement of various credentials (degrees, diplomas, and credit and noncredit certificates of value in the labor market).

### 3) Track and measure the labor market outcomes of all participants:

- Measure and report employment status, earnings, and career advancement for all students/participants who have participated in a program or institution and entered the state's labor market.

### 4) Respond to additional challenges such as:

- Capture, measure, and report on student/participant education and skill development progression and labor market outcomes across states.
- Capture, measure, and report on the achievement of accredited industry certifications generated via state-approved educational and skills development programs.

Source: Working Poor Families Project, *Recommendations for Incorporating Postsecondary and Workforce Data into Statewide Longitudinal Data Systems*, March 2010.

as well as where the strongest pipelines are. It will enable the pinpointing of specific policy or practice changes that can help improve outcomes for students

The Working Poor Families Project has developed recommendations to guide the development of a comprehensive data system, which will in turn enable the state to devise practices, policies, programs, and strategies to serve adult learners (see Figure 5).

It is important that the collected data be available and easily accessible to the public. This will enable state agencies, researchers and education providers to use the findings to improve their practices, and to add to the body of knowledge pertaining to adult learning for low-skill workers.

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**Recommendation 3: Establish benchmarks that define success for systems serving nontraditional students.**

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Defining realistic objectives for student success is as important as collecting the right information. Michigan should establish state-level benchmarks that determine whether systems are successful. This could be done by a state agency itself or in cooperation with service delivery systems. The state, with partners such as community colleges or research institutes, should conduct analysis of the collected data to determine whether the systems and institutions have met the benchmarks. As with the data results themselves, this analysis should be made publicly available.

## Conclusion

Michigan is at a crossroads, in which concerns about budget and spending are intersecting with the need to invest in the long-term economic future of the state. Michigan must commit to investing in the skills of its workforce if it is to flourish in the context of reduced availability of manufacturing jobs for those without postsecondary education. The only way it can do this effectively is to have the information it needs to design workforce policies and systems that encourage and assist workers in attaining marketable occupational skills. This in turn provides businesses with a skilled labor pool that will enable them to flourish in the new economy.

The only way that Michigan can get this information is by developing a comprehensive state longitudinal data system that provides information about all students and workers—including those who do not follow the traditional path of enrolling in college immediately after high school—and the education and workforce systems that serve them. This requires making an intentional and earnest effort, during this window of time provided by federal and Shifting Gears funding, to develop an efficient and effective system of data gathering that will help Michigan improve its systems and programs. Such an effort will help our state move forward toward a restored prosperity.

*This paper has been published with the support of the Joyce Foundation and the Working Poor Families Project. Special thanks to the Working Poor Families Project for their guidance and feedback in the development of this paper.*

## Recommended Further Reading

### Effective Data System Design

Ewell, Peter and Hans L'Orange, *The Ideal State Postsecondary Data System: 15 Essential Characteristics and Required Functionality*, State Higher Education Executive Officers, September 14, 2009.

Community College Bridges to Opportunity Initiative, University of Texas at Austin, *Community College Data and Performance Measurement Tool Kit: Information, Strategies and Resources for State Policymakers and Community College Leaders*, April 2008.

Goldberger, Susan, *Power Tools: Designing State Community College Data and Performance Measurement Systems to Increase Student Success*, Achieving the Dream and Jobs for the Future, 2007.

Leinbach, D. Timothy and Davis Jenkins, *Using Longitudinal Data to Increase Community College Student Success: A Guide to Measuring Milestone and Momentum Point Attainment*, Community College Research Center, Columbia University, January 2008.

Linn, Dane, *Measuring Student Achievement at Postsecondary Institutions*, National Governors Association Center for Best Practices, November 2009.

Phillips, Jennifer, *Building and Stenghtening State Data Systems to Measure Community College and Workforce Systems*, Working Poor Families Project, 2009.

Reyna, Ryan, *Complete to Compete: Common College Completion Metrics*, National Governors Association Center for Best Practices, June 2010.

Strawn, Julie, *Shifting Gears: State Innovation to Advance Workers and the Economy in the Midwest*, The Joyce Foundation, July 2010.

Working Poor Families Project, *Recommendations for Incorporating Postsecondary and Workforce Data into Statewide Longitudinal Data Systems*, March 2010.

### Privacy Concerns

Data Quality Campaign, Comments on the Posted Recommendations Regarding Data Security, Letter to the U.S. Department of Education, August 2010. (<http://www.dataqualitycampaign.org/resources/details/1005>)

Data Quality Campaign, *Maximizing the Power of Education Data while Ensuring Compliance with Federal Student Privacy Laws: A Guide for State Policymakers*, September 2006. (<http://www.dataqualitycampaign.org/resources/details/32>)

Mills, Jack, *State Data Systems and Privacy Concerns: Strategies for Balancing Public Interests*, Achieving the Dream and Jobs for the Future, February 2005.

### Specific to Michigan

Price, Derek and Brandon Roberts, *Statewide Data as a Lever for Change: Experiences and Lessons from Shifting Gears*, The Joyce Foundation, September 2010.

Michigan Department of Energy, Labor and Economic Growth, *Transforming Michigan's Adult Learning Infrastructure: A Report to the Council for Labor and Economic Growth from the CLEG Low-Wage Worker Advancement Committee's Adult Learning Work Group*, December 2008.

Michigan Department of Energy, Labor and Economic Growth, *Michigan's Adult Education System: A Framework for Transition*, 2010.

## Useful Websites

- **The Shifting Gears Initiative ([www.shifting-gears.org](http://www.shifting-gears.org)):** Shifting Gears is a multi-year, multi-million dollar state policy initiative by the Joyce Foundation to promote regional economic growth by improving the education and skills training of the workforce in six Midwestern states including Michigan. Shifting Gears is helping Michigan to expand the scope of its No Worker Left Behind program to help adult learners obtain basic skills in order that they can move on to attain occupational skill credentials; this expanded program is called No Worker Left Behind-Everybody In! **Michigan's Policy Agenda and Action Plan** can be found at this website.
- **The Working Poor Families Project ([www.workingpoorfamilies.org](http://www.workingpoorfamilies.org)):** The Working Poor Families Project was launched in 2002 by national philanthropic leaders and is currently supported by the Annie E. Casey, Ford, Joyce and Mott foundations. The WFPF focuses on the states because many of their policies and investments critically affect the lives of working families. The WFPF is now active in 22 states and the District of Columbia, and in each state it partners with one or more nonprofit organizations to strengthen state policies to better prepare America's working families for a more secure economic future. In addition to being a resource for analysis of policies important to working families, their website includes **an extensive collection of state-level data** on the educational and skills levels of adults and on state economic and employment conditions.
- **The Michigan League for Human Services ([www.milhs.org](http://www.milhs.org)):** The Michigan League for Human Services is the designated Michigan partner organization for both Shifting Gears and the Working Poor Families Project. It is a nonprofit, nonpartisan statewide policy and advocacy organization dedicated to ensuring that Michigan's low-income residents achieve economic security.

## Appendix 1

### Community College Research Center Milestones and Momentum Points

#### Table 1: Milestone Events by Student Group

Student Group by Enrollment				Student Group by Program/Objective	
ESL	ABE	DEVELOPMENTAL	COLLEGE-LEVEL	VOCATIONAL	TRANSFER
<ul style="list-style-type: none"> <li>• College ready (completed ESL)</li> </ul>	<ul style="list-style-type: none"> <li>• College ready (completed ESL)</li> </ul>	<ul style="list-style-type: none"> <li>• College ready (completed developmental ed.)</li> </ul>	<ul style="list-style-type: none"> <li>• Earned certificate of less than 1 year</li> </ul>	<ul style="list-style-type: none"> <li>• Earned certificate of less than 1 year</li> </ul>	<ul style="list-style-type: none"> <li>• Earned associate degree</li> </ul>
<ul style="list-style-type: none"> <li>• Transitioned to college-level (completed x number of college credits)</li> </ul>	<ul style="list-style-type: none"> <li>• Transitioned to college-level (completed x number of college credits)</li> </ul>	<ul style="list-style-type: none"> <li>• Transitioned to college-level (completed college-level "gatekeeper" course in area of remediation)</li> </ul>	<ul style="list-style-type: none"> <li>• Earned certificate of 1 year or more</li> <li>• Earned associate degree</li> <li>• Transferred or transfer ready</li> <li>• Completed program or training</li> </ul>	<ul style="list-style-type: none"> <li>• Earned certificate of 1 year or more</li> <li>• Earned associate degree</li> <li>• Completed program or training</li> <li>• Completed apprenticeship</li> </ul>	<ul style="list-style-type: none"> <li>• Transferred or transfer ready</li> </ul>

#### Table 2: Potential Momentum Points by Student Group

Student Group by Enrollment				Student Group by Program/Objective	
ESL	ABE	DEVELOPMENTAL	COLLEGE-LEVEL	VOCATIONAL	TRANSFER
<ul style="list-style-type: none"> <li>• Completed 1 ESL course</li> </ul>	<ul style="list-style-type: none"> <li>• Completed 1 ABE course</li> </ul>	<ul style="list-style-type: none"> <li>• Completed 1 developmental education course</li> </ul>	<ul style="list-style-type: none"> <li>• Completed 1 CL gatekeeper math</li> </ul>	<ul style="list-style-type: none"> <li>• Completed 1 CL gatekeeper math</li> </ul>	<ul style="list-style-type: none"> <li>• Completed 1 CL gatekeeper math</li> </ul>
<ul style="list-style-type: none"> <li>• Completed a career exploration or introduction course</li> </ul>	<ul style="list-style-type: none"> <li>• Completed a career exploration or introduction course</li> </ul>	<ul style="list-style-type: none"> <li>• Completed a career exploration or introduction</li> </ul>	<ul style="list-style-type: none"> <li>• Completed 1 CL gatekeeper English</li> <li>• Completed 15 CL credits</li> <li>• Completed 30 CL credits</li> <li>• Completed 30 CL credits in 1 year</li> <li>• Completed 15 voc credits</li> <li>• Completed 30 voc credits</li> <li>• Completed 30 voc credits in 1 year</li> <li>• Completed a career exploration or introduction course</li> </ul>	<ul style="list-style-type: none"> <li>• Completed 1 CL gatekeeper English</li> <li>• Completed 15 CL credits</li> <li>• Completed 30 CL credits</li> <li>• Completed 30 CL credits in 1 year</li> <li>• Completed 15 voc credits</li> <li>• Completed 30 voc credits</li> <li>• Completed 30 voc credits in 1 year</li> <li>• Completed a career exploration or introduction course</li> </ul>	<ul style="list-style-type: none"> <li>• Completed 1 CL gatekeeper English</li> <li>• Completed 15 CL credits</li> <li>• Completed 30 CL credits</li> </ul>

Note: ESL = English as a Second Language, ABE = Adult Basic Education, CL = college-level

Source: Leinbach, D. Timothy and Davis Jenkins, *Using Longitudinal Data to Increase Community College Student Success: A Guide to Measuring Milestone and Momentum Point Attainment*, Community College Research Center, Columbia University, January 2008.

## Appendix 2

### How Does Michigan Compare to Other States?

#### DQC State Analysis of State Actions 2010

State	1	2	3	4	5	6	7	8	9	10	Total #
Texas	*	*	*	*		*	*	*		*	8
Arkansas		*	*	*	*	*	*	*			7
Florida	*	*		*	*	*	*		*		7
Georgia	*	*	*	*		*	*	*			7
Indiana	*		*	*	*	*	*	*			7
Utah	*		*	*	*	*	*	*			7
Colorado			*	*	*	*		*		*	6
Kansas		*	*	*			*	*		*	6
Maryland	*	*	*	*				*		*	6
Oregon			*	*	*	*	*			*	6
Rhode Island		*	*	*			*	*		*	6
Virginia			*	*		*	*	*		*	6
Wisconsin		*	*	*		*	*			*	6
Alaska	*		*	*			*	*			5
Delaware		*	*	*			*	*			5
Kentucky		*	*	*			*	*			5
Michigan		*	*	*		*		*			5
Minnesota		*	*	*		*	*	*			5
New Hampshire		*	*	*		*		*			5
North Carolina	*	*	*	*			*	*			5
Ohio		*	*	*		*	*				5
Pennsylvania		*	*	*		*		*			5
Tennessee			*	*		*	*			*	5
Vermont		*	*	*			*	*			5
Connecticut		*	*	*		*					4
Hawaii			*	*			*	*			4
Illinois		*	*				*	*			4
Maine		*	*			*		*			4
Massachusetts			*	*			*	*			4
Missouri			*		*		*	*			4
New Mexico		*	*	*			*				4
New York		*	*	*				*			4
Washington	*	*	*					*			4
District of Columbia		*	*					*			3
Iowa			*	*		*					3
Nebraska		*	*	*							3
New Jersey		*				*					3
South Carolina				*	*		*				3
West Virginia		*	*	*							3
Wyoming		*	*	*							3
California		*		*							2
Idaho				*		*					2
Louisiana							*	*			2
Mississippi											2
Nevada				*		*					2

Appendix 2 (continued)

How Does Michigan Compare to Other States?

DQC State Analysis of State Actions 2010

State	1	2	3	4	5	6	7	8	9	10	Total #
North Dakota		*	*								2
Oklahoma							*				2
Puerto Rico				*		*					2
South Dakota		*	*								2
Alabama				*							1
Arizona			*								1
Montana											0
<b>Total</b>	<b>9</b>	<b>32</b>	<b>40</b>	<b>40</b>	<b>8</b>	<b>23</b>	<b>27</b>	<b>28</b>	<b>1</b>	<b>9</b>	

- 1 Link state K-12 data systems with early learning, postsecondary education, workforce, social services and other critical agencies
- 2 Create stable, sustained support for robust state longitudinal data systems
- 3 Develop governance structures to guide data collection, sharing and use
- 4 Build state data repositories (e.g., data warehouses) that integrate student, staff, financial and facility data
- 5 Implement systems to provide all stakeholders with timely access to the information they need while protecting student privacy
- 6 Create progress reports with individual student data that provide information educators, parents and students can use to improve student performance
- 7 Create reports that include longitudinal statistics on school systems and groups of students to guide school-, district-, and state-level improvement efforts
- 8 Develop a purposeful research agenda and collaborate with universities, researchers and intermediary groups to explore the data for useful information
- 9 Implement policies and promote practices, including professional development and credentialing, to ensure educators know how to access, analyze and use data appropriately
- 10 Promote strategies to raise awareness of available data and ensure that all key stakeholders, including state policymakers, know how to access, analyze and use the information

Source: Data Quality Campaign, Data for Action, 2010. Website: <http://www.dataqualitycampaign.org/stateanalysis/states> (Accessed on February 17, 2011.)