



**Statewide Data as a Lever
for Systems Change:**
**Experiences
and Lessons
from Shifting Gears**

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About Shifting Gears

The Joyce Foundation's Shifting Gears initiative was launched in 2007 as a state policy change effort in Indiana, Illinois, Michigan, Minnesota, Ohio and Wisconsin. The goal is to strengthen state postsecondary, adult basic education, and skills-development systems so that more low-skilled workers gain the education, skills and credentials needed to advance and succeed in our changing economy.

For more information on Shifting Gears, please visit www.shifting-gears.org.

About the Joyce Foundation

The Joyce Foundation supports efforts to protect the Great Lakes, to reduce poverty and violence in the region, and to ensure its residents have access to good schools, decent jobs, and strong democracy, and a diverse and thriving culture.

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About this Publication

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1 Executive Summary

The Joyce Foundation launched the Shifting Gears Initiative in 2007 with the goal of making existing education and skills-development systems work better for low-skilled adults in Indiana, Illinois, Michigan, Minnesota, Ohio, and Wisconsin. The ultimate objective of the initiative is for more low-skilled workers to gain the education, skills and postsecondary credentials needed to advance and succeed in our changing economy.¹

At its core, Shifting Gears is a system change initiative² that revolves around four core activities, one of which is using data to foster improvements in policy and practice. At the outset, states were asked to use data to better understand and document low-skilled adult education and skills-development issues, and to help build awareness and support for improved public policies as well as institutional and systems change. The importance and use of data has expanded as the initiative evolved; significantly, the states have

demonstrated the necessity of aligning multiple data systems in order to analyze and document student transitions and success as well as program effectiveness.

The Shifting Gears states have focused their data work in three areas:

- 1) **CONNECTING AND STRENGTHENING STATE DATA SYSTEMS** to better measure the progress of low-skilled adults through the adult education, skills-development and postsecondary education systems, and into the labor market.
- 2) **ANALYZING AND DOCUMENTING SKILL LEVELS AND EDUCATIONAL OUTCOMES** of low-skilled adult workers to raise awareness of the magnitude of this population and to build commitment among stakeholders that changes in policy and practice are needed.



3) APPLYING DATA TO DEVELOP AND IMPLEMENT POLICIES FOR INSTITUTIONAL AND PROGRAM IMPROVEMENT that enable and support practices to enhance the delivery of education and support services for low-skilled adults.

After three years of work, the Shifting Gears states have succeeded in raising awareness about the need to increase the education and skill levels of adult workers. The states also have demonstrated the value and importance of aligning and/or matching multiple databases across the postsecondary and skills-development systems in order to analyze and document student progress and program effectiveness. These Shifting Gears data efforts make an important contribution to the national movement to use data to foster policy and program improvements.

Although this work is not complete, a number of lessons have emerged about the challenges and opportunities states face when seeking to use data as a lever for systems change.

- *In a systems change initiative, it is important to identify and clearly define upfront the type of data needed and how they can be used.*
- *Enhancing state data systems and analyses is multifaceted and requires a high-level commitment.*

- *Using existing data can jump start analytic efforts.*
- *Data can be helpful in building awareness and generating support for systems change.*
- *State data issues involve both technical and political considerations.*
- *Flexibility and patience is needed as progress can be complicated and slow.*
- *An intentional strategy to apply data and analyses to inform, drive and support institutional and program improvement is necessary.*

The Shifting Gears emphasis on using data across state systems to foster improvements in policy and practice has created a strong foundation and positive trajectory for making the adult education, postsecondary and skills-development systems, and programs work better for low-skilled adults. A future report will provide further observations and findings on how Shifting Gears states are using data to achieve systems change.





Introduction

The Joyce Foundation launched the Shifting Gears Initiative in 2007 to support the states of Indiana, Illinois, Michigan, Minnesota, Ohio, and Wisconsin in strengthening their postsecondary, adult education and skills-development systems.³ The ultimate objective of the initiative is for more low-skilled workers to gain the education, skills, and postsecondary credentials needed to advance and succeed in our changing economy.

The Joyce Foundation engaged in this multiyear, multimillion dollar initiative with the goal of making existing education and skills-development systems work better for adults, so that an unemployed Midwesterner can more easily learn new skills and successfully attain a postsecondary credential that is valued by employers.

At its core, Shifting Gears is a system change initiative that encourages state leaders and other stakeholders to improve educational and employment services for low-skilled adult workers, a population that has not been a prominent

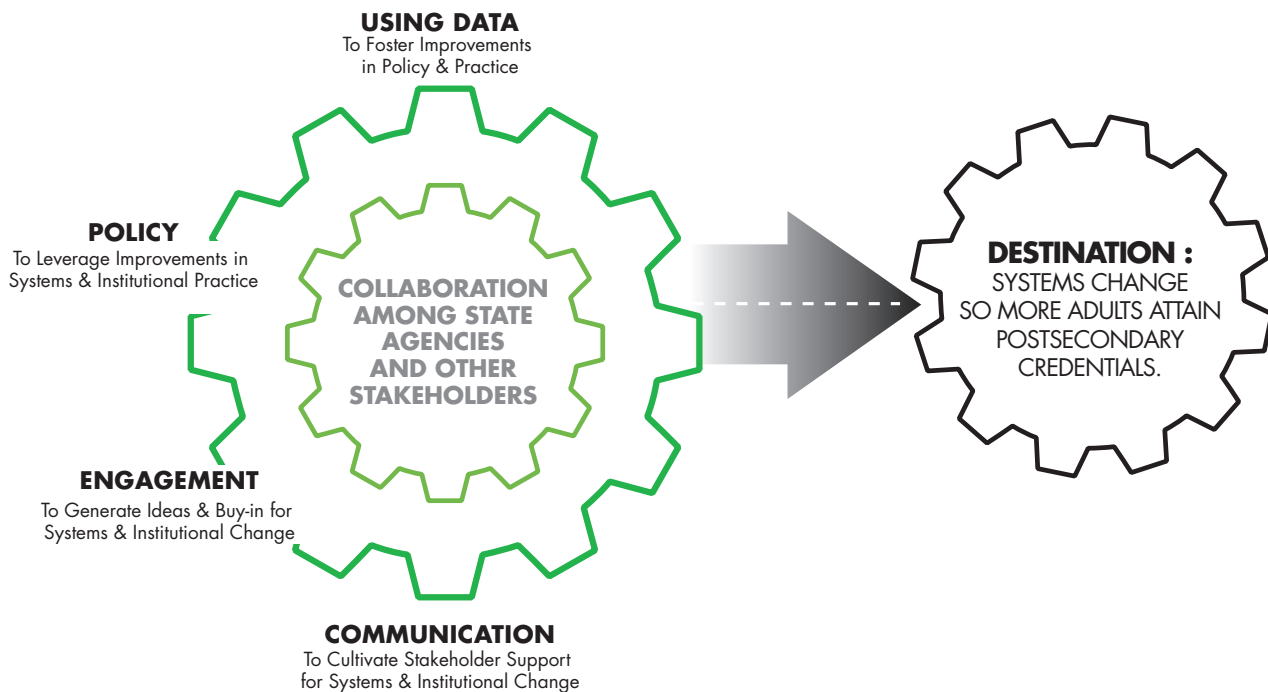
focus of state policy and system reform efforts nationwide. The approach to systems change revolves around four core activities:

- 1) **Using data** to foster improvements in policy and practice;
- 2) **Pursuing policy** change to leverage improvements in systems and institutional practice;⁴
- 3) **Engaging the field** to generate ideas and buy-in for systems and institution change; and
- 4) **Deploying strategic communication** to cultivate stakeholder support for change.

To help Shifting Gears states undertake these activities, the Joyce Foundation provides financial resources and other support including expert technical assistance, cross-state sharing of experiences and national examples of best practice. After three and



FIGURE 1. SHIFTING GEARS: DRIVING TOWARD SYSTEMS CHANGE



a half year, the initiative has garnered the attention of state officials and institutional leaders across the Midwest and has made progress in building a commitment to systems change. In addition, Shifting Gears states have taken important steps in each of the four core activities to advance their systems change goals.

This paper addresses the Shifting Gears core activity of using data to foster improvements in policy and practices. Starting with their initial proposals, states were asked to use data to better understand and document low-skilled adult education and skills-development issues, and to help build awareness and support for improved public policies as well as institutional and systems change.

When the Shifting Gears initiative began, participating states did not have an evidence-based understanding of the success – or lack thereof – of low-skilled adults who participated in postsecondary, adult education and skills-development programs. As part of the initiative,

states were encouraged to draw on data to assess and document how effectively low-skilled students transitioned within specific systems and programs as well as between systems. States also were encouraged to strengthen data systems so they could more effectively measure educational progress and labor market outcomes (e.g., employment and earnings).

As described in this paper, the importance and use of data has expanded as the initiative evolved. Shifting Gears states are progressively giving more importance to improving the education and skills levels of low-skilled adult workers. Significantly, these states have demonstrated the necessity of aligning multiple data systems across the postsecondary, adult education and skills-development systems in order to analyze and document student progress and program effectiveness. These results contribute to the national trend of using data to foster policy and program improvements that increase educational attainment.



3 Increased National Focus on Data and Student Success

Nationally, the emphasis on the role of data to inform policy and practice has been gaining momentum since 2000. That year the National Center for Public Policy and Higher Education (NCPPE) broke new ground with its *Measuring Up* report, which relied on data to grade each state on a number of outcomes including preparation of high school students, access to college, and completion of postsecondary degrees.⁵

In 2003, the National Center for Higher Education Management Systems (NCHEMS) stressed the importance of being able to measure student progress in order to develop more effective policies for success. NCHEMS documented that state data systems tend to share a common architecture and use common identifiers for students; thus, the technical challenges to connecting data systems within states to measure success were not significant.⁶ Several years later, a subsequent NCPPE report stressed that effective state data systems are essential for policymakers, practitioners, employers and other stakeholders to determine program effectiveness and thus reform policies and practices to improve student achievement.⁷

During this time, demands also emerged to improve the quality of K-12 educational practice by using data and analyses, partly as a result of the federal No Child Left Behind legislation. In 2002, Congress passed the Educational Assistance Act, which funded the U.S. Department of Education's Institute for Education Sciences' State Longitudinal Data Systems (SLDS) project. The SLDS project is intended to enhance the capacity of states "to manage, analyze and use education data, including individual student records."⁸

Since 2002, 41 states and the District of Columbia (including all Shifting Gears states) have received at least one SLDS grant, primarily to strengthen their K-12 data systems. The Data Quality Campaign has championed this effort to strengthen states' data infrastructure and created report cards that assess state efforts across ten core elements all states should measure and track.⁹

Many philanthropic initiatives have also been promoting the use of data – not only to evaluate their investments – but also to guide postsecondary practitioners' decision-making towards improving



system outcomes and institutional practices. For example, in 2003 the Lumina Foundation launched a data-driven initiative, Achieving the Dream, to transform the way community colleges operate so more low-income students, first-generation students and students of color would succeed in earning a postsecondary credential.¹⁰ One of the highlights of this effort was the importance it gave to disaggregating data so the progress of specific student populations could be documented and discussed by system-level administrators and institutional practitioners.¹¹

The Ford Foundation's Bridges to Opportunity focused on state-level data to improve policies and practices that facilitate progression of students through the postsecondary education pipeline.¹² These and other efforts represent a growing national consensus that strengthening data infrastructure and conducting analyses can provide "greater opportunities for understanding the experiences of students" as they progress through educational systems.¹³

Over the last few years, workforce education and training experts also began advocating for comprehensive and connected data systems. In 2006, a report by the Workforce Strategy Center, supported by the Joyce Foundation, stressed that to help "more students access higher education, make transitions from one level of study to the next, and successfully complete their education, states must possess a solid understanding of current outcomes and have the ability to track and report on performance over time."¹⁴

This report helped expand the national conversation around labor market outcomes and targeted populations to include low-skilled adults who need to transition from adult education and skills-development programs into postsecondary education and work. It noted that such efforts should focus on using data as more than an issue of accountability emphasizing the role of data "for policymakers and practitioners at all levels... to pinpoint performance problems, allocate

resources and interventions, and track success and improvement over time."¹⁵

Increasingly, advocacy and research efforts supporting enhanced state data systems are looking beyond K-12 and postsecondary education systems to include data on participants from adult education and skills-development programs. This more inclusive perspective on state data systems is critical because "few states track educational and occupational outcomes longitudinally for lower-skilled adults along and through the educational pipeline and into the labor market."¹⁶

Shifting Gears states are leading the way in analyzing the progress and success of adult students seeking to improve their skills and obtain postsecondary credentials. Producing and using such analyses requires that states develop comprehensive and/or connected data systems that link adult education and skills-development databases with postsecondary education databases. For example, the Michigan and Minnesota Shifting Gears initiatives are working to develop their state SLDS efforts effectively so each state can generate meaningful data on the educational progress of low-skilled adults through these systems.

During the first three years of Shifting Gears, states used data to foster improvements in policy and practice in order to undertake their system change goals (see box on page 8). Leaders from adult education, postsecondary and skills-development systems are collaborating to link or match databases, and are supporting new analyses to highlight challenges facing low-skilled adults and build commitment to address these challenges.

The remainder of this paper describes these experiences to date and offers lessons learned about how states can strengthen systems and use data to inform changes in policy and practice that benefit low-skilled adults.

SHIFTING GEARS STATES' SYSTEM CHANGE GOALS

Each Shifting Gears state has established system change goals to guide their efforts in strengthening their postsecondary, adult education and skills development systems to better serve more low-skilled adults. These goals are summarized below. For details, see: *Shifting Gears: State Innovation to Advance Workers and the Economy in the Midwest*.¹⁷

ILLINOIS is helping more lower-skilled adults advance along career pathways (within a broader Career Clusters framework) by creating and strengthening adult basic education and developmental education bridge programs for adults whose basic skills are insufficient for community college credit-level work. Bridge programs connect one level of education and skills training with another, for example, by connecting or integrating basic skills instruction with occupational instruction.

INDIANA focused on strengthening an array of state systems, policies and program practices to better serve adult workers. Activities included piloting new ways to deliver basic skills and remedial education at the community college level, new collaboration among adult education and community college providers, and expanding and enhancing the capacities of state data systems.

MICHIGAN is restructuring its adult education programs and strategies into a regional partnership model that offers more effective “on-ramps” into postsecondary education and training in high-demand or emerging industries. The effort brings local adult education, postsecondary and workforce systems together to design and deliver more effective and integrated services for low-skilled adults

MINNESOTA'S FastTRAC (Training, Resources, and Credentialing for Pathways to Sustainable Employment) initiative is establishing career pathways for adults whose basic skills are insufficient for community college level work. The effort uses bridge programs to align and integrate adult basic education, non-credit occupational training, and for-credit postsecondary certificates and degree programs with various credentials embedded into career pathways that “stack” on each other and build toward degrees over time.

OHIO'S Board of Regents is redesigning and aligning key components of the adult education, adult career technical education and community college systems in order to widen access to postsecondary workforce education, shorten paths to credentials, and speed progress to completion and credit-based postsecondary credentials and degrees.

WISCONSIN'S Regional Industry Skills Education (RISE) initiative is establishing career pathways in all technical colleges to increase the number of low-skilled adults earning postsecondary credentials. The approach involves chunking existing college approved courses and programs into smaller, discrete modules that can add up to a technical diploma and/or an Associate degree, and that links adult education courses via bridge programs to these modules.





Using Data to Foster Improvements in Policy and Practice

A core component of the Shifting Gears theory of change is that postsecondary, adult education, and skills-development data should regularly be used to inform and support institutional and system improvements. Such change is needed to increase the number of low-skilled and low-wage workers who acquire postsecondary credentials and move ahead in the labor market.

Data can be used to answer key policy questions that revolve around the need to:

- identify how well students transition through educational and skills-development systems;
- inform the allocation of public resources among adult education, postsecondary and skills-development systems;
- improve the design and execution of education and skills-development programs; and
- provide feedback to students and employers on program outcomes.

From the outset, it was clear that participating Midwest states were at different places with their postsecondary, adult education, and skills-development data systems. Several states had well-developed data systems that connected technical and community college data with other state data systems. These states were able to document student transitions within postsecondary education and from programs such as adult education into the postsecondary system, and to assess labor market outcomes.

In other states, postsecondary and other data systems were less developed, which limited their ability to document skill levels, educational transitions, and education and labor market success, especially for low-skilled adults.

The importance of using data to examine how well institutions and systems serve low-skilled adults was also stressed at the start of Shifting Gears. Washington State's Tipping Point study¹⁸ was highlighted as the type of data analysis that could be very valuable in motivating and

informing institutional and system improvement efforts. This study, relying on data from a strong system, tracked the educational progress and labor market outcomes of first-time adult community college students who held a high school credential or less. The purpose was to better understand the educational pathways of low-skilled adult students and the labor market returns to varying amounts of education. The study helped drive significant policy changes in Washington, highlighting the value of conducting data analysis on low-skilled adult workers.

Each Shifting Gears state was expected to use data to foster improvements in policy and practice. These efforts were focused in three areas:

- 1) **CONNECTING AND STRENGTHENING STATE DATA SYSTEMS** to better measure the progress of low-skilled adults through the adult education, skills-development and postsecondary education systems, and into the labor market.
- 2) **ANALYZING AND DOCUMENTING SKILL LEVELS AND EDUCATIONAL OUTCOMES** of low-skilled adult workers to raise awareness of the magnitude of this population and to build commitment among stakeholders that changes in policy and practice are needed.
- 3) **APPLYING DATA TO DEVELOP AND IMPLEMENT POLICIES FOR INSTITUTIONAL AND PROGRAM IMPROVEMENT** that enable and support practices to enhance the delivery of education and support services for low-skilled adults.

These data efforts were incorporated into each state's logic model and policy agenda and action plan.¹⁹ States were also given a data action plan tool as a framework for mapping out specific actions to strengthen connections among state data systems, analyzing and documenting the

progress and success of low-skilled adults, and developing and implementing policies to achieve systems and institutional change. The experiences of Shifting Gears states in implementing these three types of actions are reported below.

1) CONNECTING AND STRENGTHENING STATE DATA SYSTEMS

As noted earlier, each Shifting Gears state began the initiative with differing capacities to connect various state data systems. Of the three states that began implementation in 2007, Illinois and Wisconsin had data systems that were fairly well developed. Their postsecondary data systems were already connected to the adult education program but not to skills development programs such as Title 1 of the Workforce Investment Act. They could also match participants from these systems to their UI wage-record system to determine employment and earnings outcomes. In contrast, Indiana was just beginning to develop an overall data system to connect information across adult education, skills-development and postsecondary education systems and to link with labor market outcome data.

Three additional states began implementation in 2008 and 2009. In Michigan, Minnesota and Ohio, postsecondary adult education and skills-development data systems were not connected. In only limited circumstances did these states connect student and participant data with labor market outcome data.

During the first two years of Shifting Gears, **Indiana** made progress across all three data system areas and successfully connected postsecondary education data with employment outcomes. Previously, Indiana neither had the capacity to connect student data from postsecondary and workforce programs to employment outcomes nor the capacity to connect postsecondary data with adult education and workforce information. Moreover, the extent of data on low-skilled adults (e.g., developmental



education students) within the postsecondary data system was limited. Thus, for Indiana a significant Shifting Gears objective was to strengthen multiple aspects of its statewide data infrastructure.

Shifting Gears resources, along with funds from the Lilly Endowment, played a critical role in accelerating the development of the Indiana Workforce Intelligence System (IWIS), a state-based integrated data collection and reporting system. IWIS represents a significant breakthrough for Indiana because – for the first time – worker employment records managed by the Department of Workforce Development (DWD) are organized and made available for matching with educational and workforce participant data systems. This provides a foundation for DWD to develop agreements with other state agencies/data systems both to match employment outcomes and to establish a comprehensive data base that can study students/participants transitioning across various educational and workforce programs. Thus, IWIS represents significant new capacity in Indiana to match data across multiple education and workforce systems.

The creation of IWIS unfolded in several stages and continues today. First, the Department of Workforce Development expanded IWIS to include state wage-record data in order to determine employment and earnings outcomes for education and workforce participants. Second, IWIS was linked with the postsecondary data system of the Indiana Commission on Higher Education. These data – employment and postsecondary – are retroactive to 2003 and will be updated annually.

While linking employment and postsecondary records turned out to be fairly straightforward, adding other public program data was more difficult and time consuming than anticipated. A key priority was to integrate the adult education

CONNECTING STATE DATA SYSTEMS

Shifting Gears states are taking a number of steps to enhance their ability to analyze educational progress and employment outcomes:

- Linking adult education and skills-development program data to postsecondary system data to measure transitions and educational success.
- Enhancing postsecondary institutional and system data systems to include non-traditional students, and adding new metrics of educational progress.
- Developing partnerships and data linkages between state education and labor market agencies to measure student employment and earnings outcomes.

program data into IWIS. After extensive deliberations for most of 2008, DWD and the state Department of Education signed a legal agreement to share data. Initial test runs indicated that the adult education data varied across providers which raised data quality issues and presented challenges for reliably integrating the data into IWIS. Similar issues were discovered with workforce program data. As a result of the Shifting Gears work, DWD data, including WIA Title I and Trade Adjustment Assistance (TAA), are now integrated into IWIS along with two years of adult education data from the Department of Education.

Importantly for Indiana and Shifting Gears, the success of IWIS has attracted attention from other funders. In early 2009, the Lumina Foundation for Education provided grant funding to sustain the IWIS statewide data infrastructure initiative and to improve the utility of several program data systems (discussed in the next section).

Shifting Gears states with more developed data infrastructure are also strengthening their systems. The **Illinois** Shifting Gears initiative is focused on developing bridge programs for low-skilled adults. (Bridge programs prepare adults who have limited academic or English skills to enter and succeed in credit-bearing postsecondary programs, thus leading to career-path employment in high-demand, middle- and high skilled jobs.) An important goal is to be able to identify all bridge program participants via the Illinois Community College Board's statewide postsecondary data system. This would allow for the analysis and documentation of student progress and success, as well as the examination of program effectiveness.

In **Wisconsin**, the Shifting Gears initiative has worked to expand the capacity of the technical college data system to assess employment outcomes. The idea is to document student employment and earnings before they enter the postsecondary system, so the impact of their education on wages can be analyzed over time. To accomplish this enhancement, a new

agreement expanding the use of UI wage-records was completed between the Wisconsin Department of Workforce Development and the Wisconsin Technical College (WTCS) system. As in Illinois, WTCS plans to flag career pathway and bridge programs thus allowing the state to measure students' educational progress in those programs.

Michigan, Minnesota, and Ohio have now identified their data needs, developed plans for this work and initiated action. All three states need to connect and/or integrate data systems, particularly postsecondary with adult education and skills-development. Both **Michigan** and **Minnesota** are working to expand the State Longitudinal Data System to include these systems and make these connections possible (see box below).

In **Ohio**, the University System of Ohio (USO) is recognized as having a very robust data system for its two- and four-year public colleges and universities that measures student educational progress and success. The recent transfer of the

USING SLDS RESOURCES TO CONNECT STATE DATA SYSTEMS

The Michigan and Minnesota Shifting Gears teams recognized the need to strengthen their state's ability to follow student and worker progress across multiple education and skills-development systems. As a result, the teams secured agreement with top state educational officials to expand their Statewide Longitudinal Data System (SLDS) project to incorporate adult learner data into the emerging state educational data system.

The successful 2009 fall grant proposals to the U.S. Department of Education for a next round of SLDS funding specifically called for linking data records from the state's postsecondary, adult education and skills-development programs into the state's SLDS system. Connecting these data systematically will allow the states to regularly conduct analysis that can help identify leaks in their educational pipeline and target policies and resources to increase the number of residents with postsecondary credentials and degrees.



Adult Basic Education and Literacy and the Adult Workforce Education programs from the state Department of Education to the Ohio Board of Regents (OBR) has stimulated interest in (and increased the urgency of) tying these data systems more closely together. A road map has been formulated for re-engineering the Adult Workforce Education data system so that it connects more effectively with the postsecondary system.

Linking all these systems together will allow OBR to more comprehensively measure the educational progress and labor market outcomes of all adult students being served. As a result, the state's data systems should provide essential information for increasing the participation and educational success of low-skilled adults. In addition, OBR intends to incorporate new measures for assessing adult learners' educational progress into an updated OBR ten-year strategic plan.

During the early stages of Shifting Gears, **Minnesota** investigated regional and local approaches to data sharing among adult education, workforce and postsecondary education providers. This investigation helped set a foundation for the type of work to be pursued at the state level. Both Minnesota and Michigan recognize the importance of being able to match education data with employment outcomes. Both states plan to develop agreements among pertinent agencies to make this possible.

By strengthening state data infrastructure for postsecondary, adult education, and skills-development systems, Shifting Gears states are developing the essential foundation required to analyze and document student progress and program effectiveness.

2) ANALYZING AND DOCUMENTING SKILL LEVELS AND EDUCATIONAL OUTCOMES

As noted earlier, Shifting Gears also emphasized the importance of conducting state data analyses to better understand and document low-skilled adult education and skills-development needs and issues and to help build awareness and support for improved public policies as well as institutional and systems change. Prior to the initiative states did not regularly report on the magnitude or conditions of the low-skilled adult workforce nor closely examine the performance of pertinent systems or programs.

At the outset of Shifting Gears, several states conducted analyses to document the education and skill levels of the adult population. A key purpose of this work was to communicate the importance of raising the skill levels of adult workers as a way of improving the state's economic competitiveness. Bringing attention to this issue provided a foundation for advancing the Shifting Gears agenda for systems change.

Indiana used non-state systems data (e.g., U.S. Census) to analyze the education and skill conditions of the Indiana adult workforce. The state Chamber of Commerce, a key partner in the state's Shifting Gears initiative, produced and disseminated a well-received performance report highlighting that approximately one million Indiana workers, almost one-third of the current workforce, did not have the basic skills to meet the needs of a 21st century economy.²⁰

The Chamber's analysis provided solid evidence of the magnitude of the low-skilled adult population in Indiana, and served as a platform for Shifting Gears to raise awareness about

needed policy and system changes. A multi-faceted dissemination strategy was successfully used to publicize the performance report, including a series of local and regional workforce summits targeting business leaders; letters to key state policy leaders (e.g. Governor and state legislators) to inform them about the issue and urge policy action to address the problem; and several op-ed pieces in the *Indianapolis Star* and other local newspapers that emphasized the need to improve skills-development and postsecondary credential attainment among the Indiana adult workforce.

Wisconsin also conducted upfront analysis to help identify the scale of need (some 710,000 Wisconsin residents aged 25-54 have no degree beyond high school, and make less than \$15.38 per hour), and the broad spread of that population across the state. These data are helping to build support among system and institutional leaders for the career pathways agenda and for addressing adult skill issues as an important component of a state economic growth strategy.

Minnesota is also using data to generate awareness of the need to address the education and skill needs of adult learners: namely, that the state's future competitive advantage depends on increasing the percentage of working adults with postsecondary credentials from today's 40 percent to 58 percent by 2016. This is a formidable challenge as almost two million working adults in Minnesota have no postsecondary credentials.

Despite relatively strong data systems, **Illinois** and **Wisconsin** had not used data to fully examine and analyze how the low-skilled adult population fared within their postsecondary systems. Under *Shifting Gears*, both states have undertaken significant work in this area.

DATA FOR CONDUCTING ANALYSES

Shifting Gears states are using postsecondary, adult education, and skills-development data to conduct a range of analyses that include:

- Generating evidence of the current workforce's education and skill gaps to emphasize the imperative of reforming systems and institutions to better educate and train low-skilled adults.
- Measuring student progress and outcomes within postsecondary systems as well as transitions from one system of education and training into another (e.g., developmental education into credit courses) and into the labor market.
- Assessing the outcomes and effectiveness of various educational and skills development programs.

Illinois, for example, conducted its first-ever study of education and workforce transitions for low-skilled students.²¹ The study covered specific student populations served by Illinois community colleges statewide: High School, Adult Education, Developmental Education, Postsecondary, Perkins Career and Technical Education, as well as general students. The study used existing data and is expected to be conducted annually to bring continued focus and attention to the transitions and success of different student populations. Illinois also plans to add new transition measures to its data system, thus expanding and enriching future analysis.

Wisconsin used existing data to conduct a special analysis of student transitions from adult basic education and developmental education into and through postsecondary technical college programs. This effort required the Wisconsin



Technical College System to compile a database of nearly 25,000 low-skilled adult students who participated in the system starting in 2000 and to track these students through 2008. A non-profit stakeholder and state partner organization, Center on Wisconsin Strategy (COWS), analyzed these data on a statewide basis and documented progress and success rates for each population. Preliminary statewide results indicate that a considerable number of adults who entered the Wisconsin technical college system through English Language Learner (ELL), Adult Basic Education (ABE) and Developmental Education programs are not earning postsecondary credentials. WTCS and COWS are currently working on next steps including identifying momentum points that lead to student success, and working with an expanded database that will allow for analysis at the district level.

As **Indiana** improved its state-based integrated data collection and reporting system (i.e., IWIS), it began using its newly developed data matching capacity to generate a number of special analyses that provided insights into the employment and education conditions of adult workers. For example, the Department of Workforce Development produced several “rapid response” reports on the educational levels of Unemployment Insurance claimants; the results were used to direct federal grant resources to targeted groups of low-skilled unemployed workers in the automotive and recreational vehicle industries. In another instance, Shifting Gears provided the impetus and IWIS provided student outcome data on a selected group of workforce program participants so the Indiana Chamber of Commerce could do a “return on investment” analysis of key state workforce programs.²²

As **Michigan, Minnesota** and **Ohio** move into the next phase of Shifting Gears, each state plans to conduct more extensive data analysis throughout the postsecondary, adult

education and skills-development systems. For example, Michigan intends to analyze current student outcome data in a range of programs to raise awareness of the need for the proposed changes to improve outcomes. Minnesota is planning to analyze the rate of adult education participants’ transitions into the postsecondary system. Minnesota may also incorporate participants’ labor market outcomes, with results disaggregated and reported by program, so that high-performing programs can be identified and studied. Ohio will conduct a comprehensive analysis of transitions from three programs – adult education, career/technical education and developmental education – into postsecondary education. This analysis will result in a transitions report, which will be generated annually and used to engage administrators and staff in discussions on ways to make improvements in all three programs.

3) APPLYING DATA TO DEVELOP AND IMPLEMENT POLICIES FOR INSTITUTIONAL AND PROGRAM IMPROVEMENT

To foster changes in policy and practice, it is necessary both to connect and strengthen state data systems, and to document and analyze the skill-levels and educational outcomes of low-skilled adults, as discussed above. It is also critical to use data to (a) help identify and develop policies that can help foster improvements in institutional and program effectiveness, and then (b) convince local stakeholders of the importance of implementing these policies. Initially, the idea of applying data for institutional and program improvement was not prominent in the states’ data work. However, through a cross-state meeting and data-focused technical assistance during the past year, Shifting Gears states have been encouraged to use data to drive and support institutional and program changes.

All Shifting Gears states have recently created data action plans that articulate how this can be done. Specifically, the states are looking to provide or enable analyses at the local institutional and program level that can inform discussions on how well current educational approaches and program efforts serve low-skilled adults. The idea is that getting information to adult education, skills-development and postsecondary education providers on the effectiveness of their specific institutional or programmatic efforts is critical to fostering the impetus to change. Such data can also provide insights into the types of changes and improvements needed to generate and sustain better student outcomes.

By analyzing specific educational or training activities or programs, some Shifting Gears states expect to identify and develop policies that can foster institutional change and thus generate better student outcomes. For example, **Ohio** analyzed the outcomes of community college development education students with a specific focus on non-traditional adult students. This analysis underscored the challenges low-skilled adults face within the community college system. The state is planning to disaggregate these findings by community college and to conduct additional research on the kinds of policies and practices that can lead to better outcomes for low-skilled adults. This work is expected to identify the kinds of policies the state could adopt to improve developmental education success rates.

Minnesota is matching adult basic education data with Supplemental Nutritional Assistance Program Employment and Training data, and Family Investment Program data to identify the degree to which these programs have common clients. In the subsequent analysis, the state expects to identify opportunities for more effective and efficient policy and practice. The effort will then focus on creating partnerships and improving procedures for these programs so participants can have a scaffold of support

services that improve chances to successfully complete an education and training program. Shifting Gears states are also using data to help implement policies for institutional and program improvement. For example, **Wisconsin** has an extensive data action plan to implement recent state policies that support career pathway development throughout the technical colleges. As a first step, the state is generating a statewide transition report, as well as transition reports for each technical college district, with the expectation that these institution-specific analyses on low-skilled adults' movement from adult basic education and skills-development programs into technical programs will serve as a catalyst for extensive discussions about how to achieve better outcomes.

Second, Wisconsin is developing a process to engage key WTCS stakeholders, including adult basic education providers, in an effort to incorporate measures of low-skilled adults' educational progress into state performance measurement systems with particular attention to the Quality Review Process (QRP). The QRP is the mechanism for technical colleges to regularly review and use data to identify where programs are serving students successfully and where program improvement is needed. An especially innovative approach is to merge the National Reporting System performance measures required for adult basic education with the current WTCS performance measures. This type of "continuous quality improvement" model is a critical tool for changing systems and institutional practices. Third, data from several adult basic bridge pilots are being used informally by system and institutional leaders to encourage other adult education providers to model their practices on these successful bridge programs.

Illinois and **Michigan** are also taking steps to use data to implement policies for institutional and program improvement. For example, Illinois is developing a question-driven website to



allow college officials to review progress and performance on measures and indicators by student population, career cluster, demographic characteristics, and special populations (as defined under federal Perkins IV legislation). The new website shows trends over time and will allow end users to “drill down” to better identify which student groups have performance gaps. The ability to access information on other colleges will allow colleges to benchmark their performance against high performers and provide an opportunity for cross-college learning. Moving forward, the website will include information about individuals served through bridge programs, which will allow comparisons of outcomes with individuals in more traditional program offerings.

Michigan is exploring a number of options for using data to drive and support policy and program improvements. One such effort involves using data from the state’s No Worker Left Behind demonstration projects and related programs to document the effectiveness of these new approaches, thus setting a foundation for systemic change. Michigan also intends to articulate system goals for student success using a momentum points’ framework which will be used to track collaborative outcomes across regional partners at interim points along learner pathways.

Ohio, as noted earlier, will use its forthcoming annual transitions report to engage program administrators and staff in ongoing discussions on program improvements. In addition, Ohio will work to find new ways to enable state and local institutions to compare and analyze student outcomes and service delivery.

The bottom-line for Shifting Gears states is that data are expected to be an important lever for policy development and implementation. These

DATA FOR INSTITUTIONAL AND PROGRAM IMPROVEMENT

Shifting Gears states are using data to develop and implement policies that can enable, drive and support better educational and training services for low-skilled adults by:

- Identifying best practices and strategies that can inform system changes to program structure and delivery.
- Disaggregating and disseminating state data at the institutional level in order to motivate and foster program improvement.
- Incorporating new metrics and data into “quality review and improvement processes” in order to facilitate ongoing performance management.

states have already made progress connecting data across adult education, skills-development and postsecondary systems. They have also either completed or are underway with new analyses on transitions of low-skilled adults across these systems. Finally, the states have proposed data action plans that articulate how their Shifting Gears data analyses will be used to develop and implement policies for institutional and program improvement. As a result, one potentially lasting impact of the Shifting Gears data activities is that information on how well state systems and institutions serve low-skilled adults is now recognized as critical to fostering improvements in policy and practice across these six Midwestern states.



5 Experience and Lessons Learned

Using data to foster improvements in policy and practice has been an important component of the Shifting Gears initiative from the outset. The initial request for proposals stressed the importance of being able to measure low-skilled adult students' progress through and across the adult education, skills-development and postsecondary systems, and into the labor market. Rather than attempting to support broad data infrastructure development, the initiative focused on strengthening and connecting existing state data systems with the aim of producing information that could be used to change policies and practices for the benefit of low-skilled adults.

As the initiative evolved, Shifting Gears teams engaged in a number of data strengthening activities and projects, even in those states that already had well-developed postsecondary, adult education and skills-development data systems. More and better data and analyses clearly were needed to understand the characteristics, needs, and outcomes of low-skilled adults involved with publicly funded programs.

The Shifting Gears initiative responded to the need and opportunity to work on data issues in several ways. Data specialists were added to the Shifting

Gears management team and data efforts were the focus of the semi-annual cross-state meetings in December 2009.

In addition, the three core areas of data work – connecting and strengthening state data systems, analyzing and documenting the skill levels and educational outcomes of adult workers, and applying data to develop and implement policies for program and institutional improvement – were represented as core activities and outcomes in the Joyce Foundation Logic Model and were the focus of discussions during evaluation reviews. Finally, the Shifting Gears management team supported states' efforts to develop data action plans that organized and mapped a variety of data activities. These plans guided both implementation and reporting of state data efforts.

After several years of work, the Shifting Gears states have made considerable progress in bringing attention to the need to increase the education and skill levels of low-skilled adult workers. Significantly, the states also have demonstrated the value and importance of aligning and/or matching multiple databases across the postsecondary and skills-development systems in order to analyze and document student



progress and program effectiveness. These Shifting Gears data efforts make an important contribution to the national movement to use data to foster policy and program improvements.

Although this work is not complete, a number of lessons have emerged about the challenges and opportunities states face when seeking to use data as a lever for systems change.

1) In a systems change initiative, it is important to identify and clearly define upfront the type of data needed and how they can be used.

The possibilities for using state data to foster change in policy and practice across multiple education and skills-development systems are extensive and diverse. Shifting Gears narrowed the data agenda by focusing specifically on issues pertaining to low-skilled adult students and their success across the adult education, skills-development and postsecondary systems.

As the initiative evolved, the Shifting Gears management team emphasized more clearly the importance of using data both to develop policy and to implement systems and institutional change goals. For Shifting Gears states, understanding the progress and success of low-skilled adults' transitions from adult education and development education into postsecondary credit programs was paramount. This focus helped clarify the data analyses and infrastructure improvements required by each state.

2) Enhancing state data systems and analyses is multifaceted and requires a high-level commitment.

Data efforts that involve several key agencies and unique data systems benefit from a strong and high-level commitment to address

policy and system change issues associated with low-skilled adults. As such, data activities need specificity and good design and have to be seen as doable by stakeholders.

Enhancing state data systems requires movement beyond broad statements of intent (e.g., link workforce and postsecondary systems) toward clear action steps, such as (1) integrate adult education data into postsecondary unit record system or (2) conduct an analysis of how effectively developmental education students complete their courses and move to credit-based programs. These actions must be clearly articulated and persons and agencies responsible held accountable for the development and implementation of plans of action. The technical assistance to states to develop data action plans has been very effective for this purpose.

3) Using existing data can jump start analytic efforts.

All Shifting Gears states needed to take steps to improve their current data systems, including the ability to share and link data among these systems. However, each state already had significant data on low-skilled workers that had not been used or analyzed. Using these data to conduct analyses early in the initiative could have been valuable in identifying, developing and adopting proposed state policies.

4) Data can be helpful in building awareness and generating support for systems change.

Data is a powerful tool for raising awareness of a problem or communicating the importance of an idea. Several Shifting Gears states emphasized early on the magnitude of their state's low-skilled adult

worker population and the relevance to the state's economic competitiveness. This message helped get media, policy makers and business leaders as well as key institutional stakeholders to recognize the critical need for systems change.

5) State data issues involve both technical and political considerations.

Aligning and potentially linking or integrating multiple data systems can require a number of technical adjustments to insure data quality, reliability and usability. These technical solutions are achievable provided that resources, staff and time are available.

More challenging are the political issues that arise when agencies seek to share data and resources to link systems or conduct analyses. Issues of data ownership, confidentiality, and—perhaps more critically—the possibility of less than flattering findings, all influence the state's ability to reach agreements for different agencies to work together. Reaching consensus on the purpose and intent of these data efforts can require extensive negotiations and be time-consuming and frustrating to various stakeholders. Carefully constructed data sharing agreements are helpful in clarifying responsibilities and expectations and establishing data security parameters. Umbrella data sharing agreements are necessary when several parties are involved in sharing data.

6) Flexibility and patience is needed as progress can be complicated and slow.

For many of the reasons noted above – complexity, limited staff capacity and procedural and political issues – data work inevitably takes longer than expected. Even

the best-laid plans can run into unforeseen challenges and require new actions that can extend and sometimes further complicate the work. Put simply, data work is rarely straightforward or predictable. Developing a coherent plan of action and establishing priorities and time frames can help manage this reality.

7) An intentional strategy to apply data and analyses to inform, drive and support institutional and program improvement is necessary.

As *Shifting Gears* states move toward policy implementation, state officials and local practitioners need straightforward and objective analysis and information to drive and support systems and institutional improvement. These data and analyses must be targeted to specific policies and programs to both convince stakeholders of the need for program improvements and to provide evidence-based guidance on the types of change needed. Ideally, this work will be embedded in ongoing quality review processes so program improvements can endure and evolve.

As described in this paper, *Shifting Gears* states are giving considerable attention to enhancing state capacity to use data to foster improvements in policy and practice. Although it is too early to gauge the impact of the *Shifting Gears* approach on systems change, the new emphasis on data across state systems creates a strong foundation and positive trajectory for making the adult education, postsecondary and skills development systems, and programs work better for low-skilled adults. A future report will provide further observations and findings on how *Shifting Gear's* states are using data to achieve systems change.



Endnotes

¹See <http://www.shifting-gears.org> to learn more about the initiative.

²Derek Price and Brandon Roberts, *The Shifting Gears Approach to Systems Change*, The Joyce Foundation, December 2009.

³Throughout this report, “skills-development system” refers to the array of publicly supported workforce training programs such as WIA Title 1, TANF Employment and Training, and Trade Adjustments Assistance, as well as the providers who deliver skills-development services such as community-based organizations, career and technical centers.

⁴To learn more about the policy work of SG states, see: Strawn, Julie. *Shifting Gears: State Innovation to Advance Workers and the Economy in the Midwest*. Joyce Foundation, July 2010.

⁵Measuring Up is released every two years. See <http://www.highereducation.org/> for more information and to download these reports.

⁶National Center for Higher Education Management Systems. *Following the Mobile Student: Can We Develop the Capacity for a Comprehensive Database to Assess Student Progression?* Indianapolis: Lumina Foundation for Education, April 2003.

⁷Patrick Callan, Joni Finney, Michael Kirst, Michael Usdain and Andrea Venezia. *Claiming Common Ground: State Policymaking for Improving College Readiness and Success*. The Institute for Educational Leadership, The National Center for Public Policy and Higher Education, and the Stanford Institute for Higher Education Research, March 2003.

⁸See <http://nces.ed.gov/programs/slds/>.

⁹See <http://www.dataqualitycampaign.org/survey/elements>.

¹⁰See <http://achievingthedream.org>.

¹¹Jobs for the Future. *Good Data. Strong Commitment. Better Policy: Improved Outcomes*. Achieving the Dream, 2010.

¹²See http://www.communitycollegecentral.org/Downloads/Data_Performance_TOOLKIT.pdf.

¹³Victoria Dougherty, Meg Long and Sarah Singer. *Using Data to Drive Change: A Guide for College Access and Success Stakeholders*. Philadelphia: OMG Center for Collaborative Learning, July 2009.

¹⁴Christopher Mazzeo, Brandon Roberts, Christopher Spence and Julie Strawn. *Working Together: Aligning State Systems and Policies for Individuals and Regional Prosperity*. New York: Workforce Strategy Center, December 2006, p. 25.

¹⁵Louis Soares and Christopher Mazzeo. *College-Ready Students, Student-Ready Colleges: An Agenda for Improving Degree Completion in Postsecondary Education*. Washington, DC: Center for American Progress, 2008.

¹⁶Amy-Ellen Duke-Benfield and Julie Strawn. *Overcoming Obstacles, Optimizing Opportunities: State Policies to Increase Postsecondary Attainment for Low-Skilled Adults*. Boston: Jobs for the Future, March 2008.

¹⁷Strawn, Julie. *Shifting Gears: State Innovation to Advance Workers and the Economy in the Midwest*. Joyce Foundation, July 2010.

¹⁸See http://www.sbctc.ctc.edu/docs/data/research_reports/resh_06-2_tipping_point.pdf.

¹⁹For a discussion of the Shifting Gears logic model and policy agenda and action plan tools, see Price and Roberts, *The Shifting Gears Approach to Systems Change*, 2009.

²⁰The *Indiana Chamber of Commerce Adult Education and Workforce Skills Performance Report* is available at <http://www.indianachamber.com/media/pdf/INAdultEdWorkforceReport2-08.pdf>.

²¹The Illinois transitions report is available at <http://www.iccb.org/pdf/reports/TransitionsReport08.pdf>.

²²Kevin Hollenbeck, *Return on Investment Analysis of a Selected Set of Workforce System Programs in Indiana*, Indiana Chamber of Commerce, September 2009. See: <http://www.indianachamber.com/media/pdf/ROIanalysisWorkforceDevelopment2009.pdf>.

Notes



Notes

Shifting Gears Management Team

The following key Joyce Foundation partners help Shifting Gears states to better develop, manage, assess, measure and communicate this work.

- CLASP (Center for Law and Social Policy) provides ongoing policy guidance to all states and coordinates communications efforts between states and partners, including maintenance of the Shifting Gears web site and distribution of a quarterly newsletter.
- The Workforce Strategy Center (WSC) provides peer learning experiences through conferences and Webinars.
- Brandon Roberts + Associates designs and implements the Shifting Gears initiative evaluation process, with assistance from Derek Price, Ph.D., of DVP-Praxis, Ltd.
- Davis Jenkins, Ph.D., Senior Research Associate, Community College Research Center, Teacher's College, Columbia University, and Tim Harmon, research coordinator with the Office of Community College Research and Leadership at the University of Illinois, Urbana-Champaign advise the state grantees on using state data to inform improvements to policy and practice.
- Douglas Gould & Co. (PublicVoice) provides communications and advocacy support and technical assistance to the states.

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