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The Joyce Foundation's Shifting Gears initiative was launched in 2007 with the goal of increasing the number of workers in six Midwestern states who earn credentials that are valued by employers in their local labor markets. This chapter summarizes the policies adopted by Illinois and Wisconsin to support the implementation of career pathways and bridge programs to both improve the employment opportunities of low-skilled, low-income adults and enhance the competitiveness of the regional workforce.

Leveraging Workforce Development and Postsecondary Education for Low-Skilled, Low-Income Workers: Lessons from the Shifting Gears Initiative

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Introduction

Shifting Gears was launched in 2007 by the Joyce Foundation, a Chicago-based organization focused on improving the quality of life of citizens residing in the Great Lakes region of the United States. The primary goal of Shifting Gears is to increase the number of low-skilled, low-income Midwestern adults who obtain college-level occupational credentials that have value in the labor market. This chapter presents the goals of the Shifting Gears initiative and the policy initiatives adopted by Illinois and Wisconsin. Drawing from research supported by each state (Bragg, Harmon, Kirby, and Kim, 2009; Valentine and Pagac, 2009), this chapter presents goals, strategic approaches, and lessons for practitioners who have responsibility for leading other regional workforce initiatives in the United States.

The Shifting Gears Initiative

The Shifting Gears Initiative of the Joyce Foundation recognizes that postsecondary education that leads to industry-valued credentials can be a route to family-wage employment for millions of adult workers in the Midwest who are unemployed or underemployed. Duderstadt notes the importance of this strategy, observing that “low-skill (e.g., without college degrees), middle-aged, and older workers make up the fastest growing share of [the Midwestern] states’ total population and available workforce, and constitute a larger share of Midwest state population than in the United States as a whole” (2011, p. 33). He and other researchers and policy analysts (see, for example, Austin and Affolter-Caine, 2008) contend that postsecondary education is a gateway to good jobs for low-skilled adults and imperative for strengthening the economic competitiveness of the Great Lakes region.

The theory of change that undergirds Shifting Gears purports that strategic funding and technical assistance can accelerate state policy that is necessary to bring promising programs for low-skilled, low-income adults to scale (Taylor, 2009). By supporting Midwestern states that are attempting to catalyze policy reform, specifically Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin, the Joyce Foundation has targeted critical resources (fiscal and human) to better educate low-skilled, low-income workers in the region. Price and Roberts (2009) summarize the four core strategies of Shifting Gears as follows:

1. *Policy change* to leverage improvements in systems and institutional practice
2. *Data utilization* to measure and foster improvements in policy and practice
3. *Stakeholder engagement* to generate ideas and buy-in for systems and institutional change
4. *Strategic communications* to cultivate stakeholder support for systems and institutional change

In several Midwestern states involved in Shifting Gears, career pathways and bridge programs are central to policy change to better link education, training, and support services so that adult learners, many of whom are members of groups historically underrepresented and underserved in postsecondary education, can enter into and progress through college and transition into employment. Bridge programs focus on the foundational competencies that adults need to enter into college, and they often explicitly link adult basic education (ABE) or developmental or remedial education and English-language learning (ELL) instruction with postsecondary education. Career pathways provide sequential curriculum and instruction that enable students to progress from one level of education to the next, offering industry-recognized credentials at critical milestones (Spence, 2007; Foster,

Strawn, and Duke-Benfield, 2011) that lead to the associate or baccalaureate degree. Many bridges and pathways contextualize teaching and learning by integrating basic skills and occupational content, and they supplement this applied instruction with student support services. Ultimately, these initiatives seek to improve students' career options and earning potential by providing a roadmap to demystify the postsecondary education and workforce systems that seem confusing and impenetrable to students.

To support Shifting Gears implementation, the Joyce Foundation assembled a team of experts who provide technical assistance to help states formulate a plan to support policy change. Data analysis and reporting is another area of technical assistance, including helping states to build the capacity to track how many low-skilled, low-income adults are receiving education and advancing into the labor market. Capacity building related to data is critical to improving system performance and drawing attention to the unique needs, trajectories, and issues facing low-wage adults. A third area of technical assistance focuses on bringing professionals from the six states together to share their plans and collectively consider difficult problems. Cross-site meetings and webinars are another vehicle to support professional development. The fourth area of technical assistance is strategic communications to elevate two ideas to a broad audience: the importance of investing in the education of low-skilled adults and the importance of using state policy to advance this agenda.

Shifting Gears in Illinois

To initiate Illinois' Shifting Gears initiative, community colleges were identified to lead the development and implementation of bridge programs. The Illinois Community College Board (ICCB) is the fiscal agent for federal adult education funding that is associated with Title II of the Workforce Investment Act (WIA), called the Adult Education and Family Literacy Act. K-through-12, community colleges, and community-based organizations are eligible to receive federal funds, but the ICCB and the Illinois Community College System are central to the state's leadership strategy. Building on this structure, the ICCB used a competitive process to select ten community colleges geographically distributed throughout the state to implement Shifting Gears. These sites included three colleges that are part of the City Colleges of Chicago and seven other community colleges located in the Chicago metropolitan area as well as the central and southern regions of the state. Each college developed bridge programs in health science, manufacturing, or transportation, distribution, and logistics (TDL), with most projects focusing on health science.

Two types of bridge programs were implemented in Illinois. *Model A, Developmental Education Bridge* (Model A–Dev Ed), sought to move students from development education to college-level course work, and *Model B, Adult Education Bridge* (Model B–Adult Ed), sought to transition stu-

dents from adult education to postsecondary education, including offering instruction for English-language learners (ELLs). Model A–Dev Ed was implemented by three sites, and Model B–Adult Ed was implemented by seven. Regardless of the model, the initial recruitment plans of most sites called for attracting students who tested on the Test for Adult Basic Education (TABE) at the Adult Secondary Education (ASE) level, which is equivalent to grades 9 to 12; only a few sought students at the Adult Basic Education (ABE) level, which is equivalent to grades 6 to 8.9. However, as recruitment proceeded, some sites that did not initially pursue ABE students opened recruitment to these students to try to address their education and employment needs and test whether the bridge model could have broader appeal and impact. As the recession deepened in 2008, the leaders of several bridges became convinced that their programs could serve adults with literacy skills below ASE. These local leaders adjusted their bridge programs for students having lower literacy levels and actively recruited them, in part to help address local unemployment.

Illinois' Shifting Gears Evaluation

Evaluation of Phase One of Shifting Gears addressed the following questions:

- How were bridge courses and programs developed and implemented?
- What were the experiences and perceptions of key stakeholders, including students, of bridge programs and courses?
- What was the incidence of bridge course and program enrollment and completion?
- What was the impact of bridge courses and programs on students' transition to postsecondary education and employment?

Quantitative and qualitative data were collected during the 2008 calendar year, with most community colleges operating a pilot bridge program in spring 2008 and repeating the programs in fall 2008. Qualitative data were also collected in spring 2009 when several sites offered another bridge program and the state moved forward to scale up policy and program implementation (Bragg, Harmon, Kirby, and Kim, 2009).

Program Results. Evaluation results pertaining to bridge program implementation produced several valuable findings:

Bridge Programs Offer Instructional Innovations. Illinois' bridge programs offer a range of instructional innovations to meet the needs of low-skilled, low-income adults. These strategies include team teaching; computerized and online instructional supports; hands-on and laboratory-based instruction, including field trips; cohorts and other strategies to build community among learners; and various forms of active learning.

Curriculum Emphasizes Contextualized Instruction. The notion of contextualization, referring to basic skills (math, reading, and writing), was observed in most sites, leading the state to adopt a definition of bridge programming that places contextualized learning as one of three core requirements, with the others being transition services and career development. In the case of the Shifting Gears initiative, contextualization referred to the integration of occupational vocabulary and career-related tasks and problems into basic skills instruction, which was prominent in sites implementing Model B–Adult Ed, and the integration of basic skills to supplement and reinforce basic skills aligned with occupational content, which was prominent in Model A–Dev Ed sites.

College Leadership Matters. In sites where community college leaders (e.g., top- and mid-level administrators) embraced the bridge program concept, the evaluation found greater alignment of functional units and resources to support programming for low-skill adults than in sites where community college leaders were less informed and involved. Partnerships among unit leaders within community colleges were crucial to both the development and the implementation of bridge programs, particularly bridges that extended to career pathways that link adult education students to developmental education and occupational education.

A Bridge Definition Policy Helps to Clarify Expectations. All three elements of Illinois' bridge program definition (i.e., contextualized instruction, transition services, and career development) were evident in the bridge programs that were implemented at the local level. Prior to adoption of the definition, local providers in Illinois were implementing a wide range of programs that they were calling a bridge program, but some of the variation in approach was resolved once the state adopted and disseminated a common definition. The definition created greater understanding of bridge programs among practitioners in the field, and it legitimized and gave impetus to local implementation.

Use of Transition Supports Is Correlated with Student Success. Correlational analysis revealed that higher rates of use of transition coordinators and case managers by bridge students were related to higher rates of student completion of their bridge programs. Higher rates of use of transition services included the following: students receiving admissions and financial aid assistance at least once; students receiving advising at least once; students receiving transportation assistance at least once; and students meeting more frequently with an assigned transition coordinator or case manager.

Student Outcomes. The evaluation results also revealed differences between student outcomes associated with Model A–Dev Ed and Model B–Adult Ed. First, students who enrolled in Model A–Dev Ed bridges accessed transition coordinators and various student services more frequently than students enrolled in Model B–Adult Ed. This difference may be related to the close proximity and historic connections between the community colleges'

developmental education units and the support service units. Developmental education is a recognized mission of community colleges in Illinois. Model A–Dev Ed students may have more access to and familiarity with student services than students participating in Model B–Adult Ed.

For Model B–Adult Ed, relationships with college units were not as formal or longstanding as with Model A–Dev Ed. In fact, the connections between the Adult Ed bridges and college-credit programs were sometimes very weak, with some colleges being unable to overcome these gaps during the first offering of their bridge programs. A contributing factor seemed to be that many Adult Ed instructors are part-time employees who have limited familiarity with the community college and limited professional connections to other college faculty and employees. Though disconnects remained evident, the evaluation results show some Adult Ed programs made progress in strengthening their connections to community college-credit units, especially occupational education.

Quantitative results also show nearly half of all students completed bridge programs, with a higher rate of completion (72 percent) for students enrolled in Model A–Dev Ed bridges than Model-Adult Ed bridges (42.1 percent). Nearly one-third of Dev Ed students continued to enroll in post-secondary education immediately after completing the bridge, with about one-quarter of these students enrolling in Dev Ed. By contrast, almost 15 percent of Adult Ed students continued to postsecondary enrollment, with 42 percent of these taking Dev Ed courses. Over 65 percent of the Dev Ed and over 50 percent of the Adult Ed students who entered and completed bridge programs were employed in low-wage jobs.

New Models. Whereas the focus of phase one of Shifting Gears in Illinois was on Model A–Dev Ed and Model B–Adult Ed, new models emerged as the sites implemented attempted to address the needs of their particular students:

- **The English-as-Second-Language (ESL) Model.** Two community colleges customized and contextualized the Model B–Adult Ed to meet ESL students' needs in the occupational fields of manufacturing and TDL, including paying special attention to linguistic, cultural, social, and gender issues.
- **The Incumbent Worker Training Model.** One community college drew upon an existing relationship with a local health-care provider to offer Model A–Dev Ed contextualized instruction and customized transition services in licensed practical nursing (LPN). The company's decision to pay tuition up front and consider the bridge program in making future decisions about job promotions was important to students' decisions to participate.
- **The Hybrid Model.** A few community colleges blurred elements of Model A–Dev Ed and Model B–Adult Ed, creating a hybrid model. In one particularly interesting case, a community college engaged faculty from

the three functional areas of adult education, developmental education, and occupational education in program planning and development, and the shared experience of these faculty convinced them that a hybrid model would both benefit students and enhance the sustainability of their bridge programs. Recognizing that students who need basic skills instruction come from diverse backgrounds and can enter community colleges through multiple doors, this model helps students find the most suitable education and employment option for them.

Overcoming Barriers. Two types of barriers were consistent impediments to implementation of bridge programs, and these barriers emerged regardless of whether Model A–Dev Ed or Model B–Adult Ed was implemented:

- **Organizational barriers.** The community college environment presented several challenges to bridge implementation, including the use of college placement exams that do not pinpoint students’ basic skills competency gaps; limited student support services to address the types of personal challenges of low-skill, low-income adults; and limited administrative, curricular, and instructional structures to accommodate bridge program implementation.
- **Policy barriers.** The misalignment of systems, funding streams, and policy and program requirements associated with WIA Title I and Title II, the Carl D. Perkins IV legislation on Career and Technical Education (CTE), and institutional developmental education impeded bridge program implementation. Included in this group of barriers is a concern about low-skill adults’ eligibility for WIA Title I funding and issues with co-mingling federal funding streams.

Changes in policy and practice to address these barriers included enhanced support services; concerted efforts to align adult education, developmental education, and occupational education; improved course approval procedures to facilitate fast-paced program development and delivery; and enhanced communication and coordination between departments internal to community colleges and between the local colleges and the state.

Shifting Gears in Wisconsin

The Wisconsin Department of Workforce Development and the Wisconsin Technical College System, with funding from the Joyce Foundation and in partnership with Workforce Development Boards, the Center on Wisconsin Strategy, and others, have engaged in a multiyear system reform effort designed to institutionalize career pathways and bridges across the state’s adult education and training systems. The effort is named Regional Industry

Skills Education (RISE), and it seeks to support an array of career pathways and bridge programs with the following benefits for specific target audiences:

- *For low-income adults:* higher skills and better jobs through more accessible and navigable training and career-advancement systems
- *For employers:* a reliable supply of workers whose skills are geared to industry needs
- *For workforce training and education:* more effective engagement with industry and more efficient alignment of resources

Starting in 2007, Wisconsin began to make a convincing, evidence-based case to the state to establish career pathways and related bridge programs. The strategies for meeting employer skill needs and worker career advancement needs include:

- Policies and processes at the state and regional level that support career pathways and enable low-skilled, low-income workers to participate in them
- Replicable career pathways in key industry sectors
- Bridge programs in several areas of the state to streamline adult learner transition from basic skills to career pathways and to support the students' exploration, preparation, and engagement in occupational education

Career pathways associated with RISE offer low-income adults clear and reliable courses of action for building skills to progress in their careers. Figure 1 provides a graphic representation of the career pathways model associated with Wisconsin's RISE initiative.

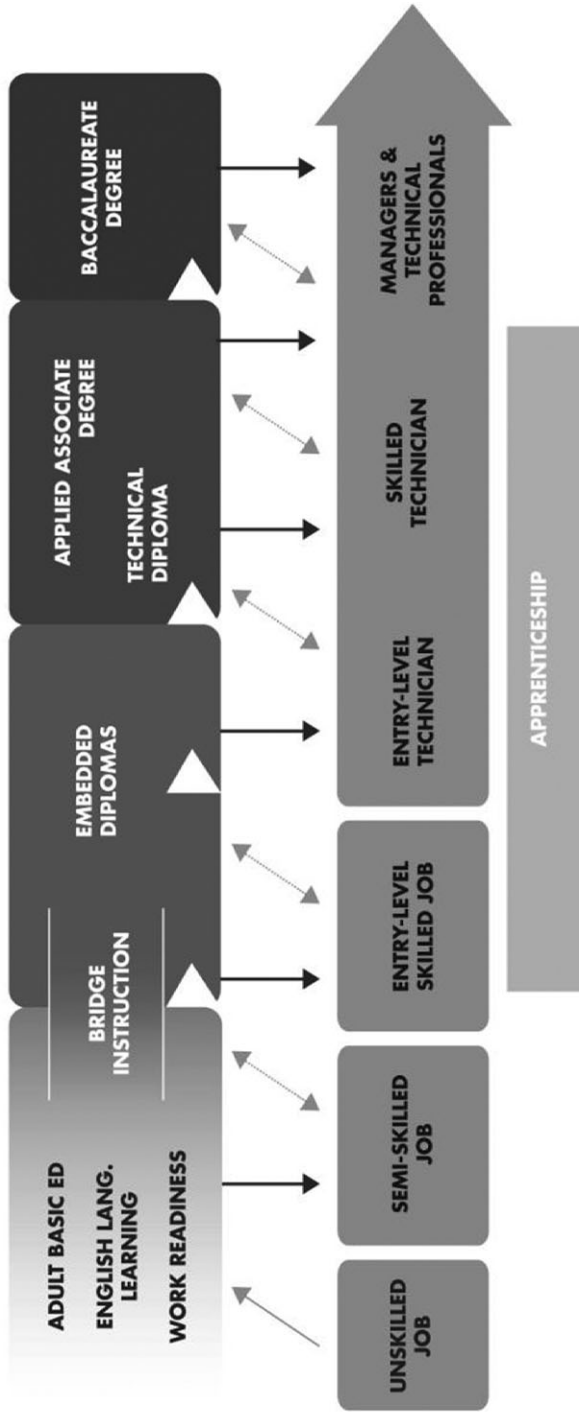
Bridge instructional programming is the first step on the career pathway for adults with basic skills or ELL needs. To support low-income workers in bridge programs and career pathway learning, employers, workforce development agencies, educational institutions, and other community organizations collaborate actively to provide training resources and wraparound support services to the learner as well as to reinforce the value of continuing along the career pathway.

Projected Outcomes. The RISE initiative has articulated the following intended outcomes:

- Higher number of low-income working adults enroll in postsecondary education
- Higher proportion of low-income working adults attain degrees, technical diplomas, or certificates
- Higher proportion of ABE, ELL, and developmental and remedial adult learners make a transition to and complete associate degrees, technical diplomas, or certificates
- Higher earnings and job quality for low-income adults engaged in career pathway

WISCONSIN CAREER PATHWAYS

Figure 1. Career Pathways Associated with RISE



To achieve these outcomes and move Wisconsin's low-income workers through more successful postsecondary transitions and into family-sustaining jobs, RISE seeks fundamental system reform, first establishing a set of comprehensive guidelines for pathways and bridges, and then developing integrated policy, data, and communications action plans to support their development.

Career Pathway Guidelines. Before embarking on a policy action agenda aimed at system reform, the RISE Steering Committee devoted time and energy to establishing a set of guidelines for workforce policymakers and practitioners. These guidelines, which became the initiative's foundational document, codified key elements of career pathways, including:

- Competency-based curricula tied to employer needs and industry skill standards
- Modular, sequential courses offering manageable steppingstones of skill-building, with relevant chunks tied to industry-recognized credentials
- Flexible course formats convenient for both working learners and employers
- Easy course credit portability for seamless progression through curricula supported by multiple institutions
- Roadmaps and other navigation aids showing connections between education, skill progression, and career opportunities
- Bridge programs preparing lower-skilled workers for postsecondary training toward credentials aligned with job advancement

A common definition provides Wisconsin with a foundation from which to build bridges and pathways.

Policy Priorities

- **Institutionalize pathways and bridges.** Ensure that career pathways, including bridge courses for ABE students and ELLs, become standard education and training options by revising program approval, classification, and funding policies. Specific institutional action steps delineated under three policy categories are: (1) eliminating or mitigating barriers to career pathway development, (2) aligning and developing funding sources, and (3) ensuring that the value of career pathways is recognized across education and workforce development sectors.
- **Refocus on human capital and support its development.** Shift Wisconsin's workforce development focus from immediate job placement to advancement through career pathways; institutionalize this effort through policies that improve assessment, career and benefits counseling, and referral; and make career pathway education and training more affordable for low-income working adults. Action steps are specified by (1) making career pathways more affordable for low-income working adults by increasing federal, state, and employer investment in related training; and (2) making career pathways a logical and accessible choice

for Wisconsin workers and job-seekers through policies that improve assessment, career and benefits counseling, and referrals.

- **Connect to industry partnerships.** Require state policies to improve employer engagement in key industries and integrate the work of RISE with related efforts to advance sector strategies in Wisconsin. Adopting a strong emphasis on employer engagement from the beginning, RISE recognized that a career pathway built without a deep understanding of and connection to a robust local industry is no more than an exercise in educational reform. Therefore, key stakeholders steered the project to deeper and more fundamental collaboration with Wisconsin industry partnerships.

Promising Results. Wisconsin's first data project was a statistical profile of the RISE target population (the more than 700,000 low-wage working adults in Wisconsin who have no two- or four-year college credential or speak English “not well” or “not at all”) and key occupational opportunities, including those with more than fifty average openings per year, paying more than a poverty-level wage, and requiring less than a four-year college degree. This work prompted the focused development of bridge and pathway programs on multiple levels. These data were also used to advance general policy for more and better postsecondary transitions, but the larger goal of the data project was to improve the measurement and reporting of key transitions and outcomes for adults accessing technical college services. Specifically, Wisconsin sought to (1) improve tracking and measurement of performance data for ABE, ASE, ELL, developmental, remedial, and postsecondary students and programming, and (2) strengthen Wisconsin's data and reporting system for technical college completion rates and employment and income effects. An ensuing pipeline study, now in its second iteration, includes data tables that show transitions for two age groups (eighteen to twenty-four and twenty-five to fifty-four), a set of tables comparing full- and part-time students, and considering transition from the lowest level of skill development through degree attainment. The report also shows these data for each Wisconsin Technical College System (WTCS) district. These state data tell a familiar but critically important story:

- Few ABE students enroll in postsecondary course work or postsecondary programs, although more than is the case in most other U.S. states.
- Many ABE students are able to succeed in college work, and ABE is good preparation. ABE students who enroll in postsecondary course work and programs perform well in comparison to students who start at the postsecondary level.
- ELL students enroll in postsecondary education at very low rates, but like ABE students, the ones who get to the postsecondary level do relatively well.
- Developmental and remedial education works in that students who participate do better than students who don't; however, relatively few students make effective use of this kind of preparation.

- Adult learners who enroll directly in college-level work often struggle. They do not accumulate college credits and earn credentials at the rate they could if they were better prepared.

These data suggest the WTCS and its partners can help low-skill students do better, and the colleges need to find ways to get more students into the programs of study and determine how they can be improved upon. Career pathways and bridges and policy reform to support their development will therefore continue to be a priority in Wisconsin.

Lessons Learned

Policy leaders in Illinois and Wisconsin have employed strategies that are uniquely important to their citizens, and they have capitalized on assets of their states and the Great Lakes region. The support of the Joyce Foundation, federal stimulus dollars, and other fiscal resources were employed to help implement career pathway and bridge programs for low-skill adults. In both states, Shifting Gears has led to new policy and incentives to link education and training efforts to better prepare low-skill, low-income adults for employment that can produce family-sustaining wages and address local unemployment during the Great Recession. Each state is tying its investments in new policy and program approaches to growing sectors of the Midwestern economy, ultimately “driving supply and demand closer” (Smith, cited in Taylor, 2009, p. 1).

Both Illinois and Wisconsin have made a number of important strides to serve low-skilled, low-income adults. Illinois has focused on increasing access to and success for adults who participate in adult education and developmental education bridge programs, recognizing that many adults need support to prepare for and enter college. Illinois’ approach to Shifting Gears has focused on helping low-income adults gain the skills they need to get a foothold on post-secondary education and prepare for viable employment. The state’s definition of a bridge program has been developed and disseminated widely to a broad range of stakeholders, including adult, developmental, and occupational education and other groups. To incentivize the development of more bridge programs statewide, Illinois is coordinating workforce and education policies that encourage more contextualized and applied instruction; additional support services; better alignment of federal funding streams within community colleges; and more fully integrated adult, developmental, and occupational education (Oertle, Kim, Taylor, Bragg, and Harmon, 2010).

Wisconsin identified career pathway and bridge programs as the intended outcome of its Shifting Gears initiative. The career pathways model was envisioned as a better way to deliver education services for low-income working adults because it is believed to facilitate more effective transitions from one level of education and skill development to another. Meeting local labor market needs is central to this approach, with the sup-

port of the state's workforce department and WTCS, which are collaborating to promote career pathways. In doing this work, Wisconsin recognized that new approaches to ABE and remedial education were needed, including new connections for students to technical college credit-based programs through bridge programs, as well as improved transitions within other credit-bearing programs toward two- and four-year degrees. Similar to Illinois' initiative, Wisconsin developed a definition of career pathways and bridge programs, and this definition has resulted in greater buy-in among practitioners and increased spread of desired practices. The *career pathway* definition is driving alignment within the state's systems by using funding guidelines and program approval processes that meet recommended standards.

Lessons for Practitioners

Looking beyond the Midwest, initiatives involving state governments, foundations, and community colleges offer some important insights for regional workforce development collaboration. Shifting Gears has taught state leaders and local practitioners the following:

- States can play a critical role in making the needs of low-skill, low-income adults known to policymakers and institutional leaders, and they can play a critical role in enhancing understanding of how to invest in this population.
- At the state and local levels, a broad-based group of state policymakers, practitioners, researchers, policy analysts, and employers agree on goals and action steps that can move a statewide agenda forward (Kirby, 2009). Developing clear and compelling descriptions of policies and program innovations helps to focus and mobilize implementation efforts that are aligned with state definitions and expectations.
- Research and evaluation is an important ingredient in state-level policy change associated with an initiative such as Shifting Gears. Without evidence that innovative programs are reaching the target population and improving student outcomes, it is unlikely that states will sustain the changes long enough to bring about long-term systems reform.
- States agencies and local institutions need to align their goals and link their financial and operational systems in ways that enhance regional workforce and economic development. State and local collaboration has never been more important to achieve this goal.

References

Austin, J., and Affolter-Caine, B. "The Vital Center: A Federal-State Compact to Renew the Great Lakes Region." Washington, D.C.: Brookings Institution Metropolitan Policy Program, 2008.

- Bragg, D. D., Harmon, T., Kirby, C., and Kim, S. "Initial Results of Illinois' Shifting Gears Pilot Demonstration Evaluation." Champaign, Ill.: Office of Community College Research and Leadership, University of Illinois at Urbana-Champaign, 2009. Retrieved from http://occr.illinois.edu/files/Projects/shifting_gears/Report/SG_Eval_Report%20PRINT.pdf
- Duderstadt, J. J. "A Master Plan for Higher Education in the Midwest: A Roadmap to the Future of the Nation's Heartland." Chicago, Ill.: Chicago Council on Global Affairs, 2011. Retrieved from http://www.thechicagocouncil.org/Userfiles/File/Globalmidwest/A_Master_Plan_for_Higher_Education_FINAL.pdf
- Foster, M., Strawn, J., and Duke-Benfield, A. E. "Beyond Basic Skills: State Strategies to Connect Low-Skilled Students to an Employer-Valued Postsecondary Education." Washington, D.C.: Center for Postsecondary Education and Employment Success, CLASP, March 2011. Retrieved from <http://www.clasp.org/admin/site/publications/files/Beyond-Basic-Skills-March-2011.pdf>
- Kirby, C. "Shifting Gears Phase Two: Advancing Policy." *Update on Research and Leadership*, Office of Community College Research and Leadership, 2009, 21(1). Retrieved from <http://occr.illinois.edu/Newsletter/2009/fall/1>
- Oertle, K., Kim, S., Taylor, J., Bragg, D., and Harmon, T. "Illinois Adult Education Bridge Evaluation: Technical Report." Champaign, Ill.: Office of Community College Research and Leadership, University of Illinois, October 2010. Retrieved from http://occr.illinois.edu/files/Projects/adult_bridge/Publications/AEBE_Report_FINAL.pdf
- Price, D., and Roberts, B. "Educating Adult Workers: The Shifting Gears Approach to Systems Change." Chicago: The Joyce Foundation, December 2009.
- Spence, C. "Career Pathways: A Strategy for Transforming America's Workforce Education Systems to Support Economic Growth." Denver, Colo.: Education Commission of the States, August 2007. Retrieved from http://www.workforstrategy.org/images/pdfs/publications/ECS_CP_Paper_2007-08.pdf
- Taylor, J. "Year Three of the Shifting Gears Initiative: An Interview with Whitney Smith from the Joyce Foundation." *Update on Research and Leadership*, Office of Community College Research and Leadership, 2009, 21(1). Retrieved from <http://occr.illinois.edu/Newsletter/2009/fall/1>
- Valentine, J., and Pagac, A. "Building Bridges in Wisconsin: Connecting Working Adults with College Credentials and Career Advancement." Madison, Wis.: Center on Workforce Strategy, University of Wisconsin-Madison, 2009. Retrieved from <http://www.cows.org/pdf/rp-buildingbridges.pdf>

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