

**THE CAREER PATHWAYS
HOW-TO GUIDE**

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FORWARD

Career pathways as a concept has garnered tremendous momentum since we first examined it in our 2002 report *Building a Career Pathways System: Promising Practices in Community College-Centered Workforce Development*. All over the country, examples of creative policy and practice are emerging. Workforce Strategy Center has been involved in the development of policies, pilot programs and initiatives of various shapes and forms in states and localities from New York to California. Having witnessed the eagerness of policymakers and practitioners for experimentation and innovation in this field, we developed this report in hopes of shortening the learning curve for those just beginning their career pathways work. Our goal is to share with the field our knowledge of the “why and how” of career pathways projects currently up and running.

This report is the second in a series called *Pathways to Competitiveness*. The examples, which were chosen based on recommendations from experts in the field, are not intended to be an exhaustive review of all career pathway efforts in the country. There are many excellent examples of career pathways that are not highlighted in this guide. It sets out a step-by-step protocol for building career pathways on the local level and discusses how state-level officials can support local efforts. The first report, *Career Pathways: Aligning Public Resources to Support Individual and Regional Economic Advancement in the Knowledge Economy*, introduces the series with a definition and economic justification for the approach. A third report, forthcoming, will take a more in-depth look at issues relevant to state policymakers who wish to support career pathways. Whether you come to this subject as an experienced architect of career pathways, a newcomer unfamiliar with the concept, or anywhere in between, we hope you read all three reports in the series and contribute to advancing the field.

Julian L. Alssid, Executive Director, Workforce Strategy Center

OVERVIEW: CONTEXT AND NEED

The necessary elements for regional economic success in the 21st century are no mystery: communities will thrive or decline based on how well they cultivate and retain “knowledge workers.” These individuals possess post-secondary educational credentials, technical skills, the ability to learn rapidly and an entrepreneurial approach to work and career management.

Unfortunately, all too many communities are faltering in their efforts to grow a robust knowledge-economy¹ workforce. With few exceptions, publicly supported education systems are not well aligned with workforce, economic development and social service systems, and none of these systems are adequately responsive to the labor market. In other words, our public systems—and our investments in those systems as taxpayers and citizens—are not paying off by producing workers with the skills our communities will need to prosper in a knowledge economy.¹

Some regions, such as those located near mountains or beaches, can attract knowledge workers by virtue of their natural amenities. Most cannot. They have to “grow their own” talent. This challenge presents a catch-22 for rural and depressed urban areas: the absence of good jobs provides few incentives for residents to get an education, while low levels of education and skill in the local workforce constrains the ability of these communities to attract and retain good jobs.

As the economy continues its long-term shift toward greater rewards for knowledge-economy skills and gains for communities that cultivate knowledge workers in sufficient

numbers, most regions of the U.S. will have to find ways to improve their publicly supported systems for education and workforce development. Unfortunately, states and localities face this challenge with limited resources, due to the rising costs of other public goods and voter resistance to tax increases. And, increasingly, education beyond high school—a key factor in developing knowledge workers—is seen as an individual or private good, rather than a public good like K-12 education, highways and national defense.

Given these increasingly limited public resources and the importance of education and training to the economic health of regions, maximizing the return on the public’s investment in education must be a top priority for policy-makers. For this to happen, education at every level needs to be more closely aligned with workforce and economic development efforts.

Whereas it should serve as a pipeline, the existing educational system for preparing the future workforce functions more like a sieve: only an elite group of young people are truly well-prepared to enter and succeed in post-secondary learning in knowledge fields, while the rest fall through the cracks. Similarly, most education and training for adult workers goes

to those who are already in career-path jobs. And far more often than not, the “second chance” systems for adults with limited skills—adult literacy and job training programs—are not very effective in preparing participants to succeed in post-secondary education and careers.

Because states and localities have a primary responsibility to formulate and fund policies for education, workforce development, social services and economic development, states and regions within them have considerable power to push for positive changes in how these systems operate and work together. The stakes are high for them to ensure that these systems are effective in enabling individual residents to succeed in the labor market and promoting economic development for communities, regions and the state as a whole.

Career Pathways: A Way to Make the Pieces Fit

In a growing number of regions around the country, local leaders are working to more closely coordinate publicly funded education, from primary through post-secondary levels, with social services and workforce and economic development programs to produce a better-trained workforce and promote economic growth. Several states are actively supporting the efforts of these regional partnerships.

“Career pathways” is our term for a series of connected education and training programs and support services that enable individuals to secure employment within a specific industry or occupational sector, and to advance over time to successively higher levels of education and employment in that sector. Each step on a career pathway is designed explicitly to prepare for the next level of employment and education.

Career pathways target jobs in industries

of importance to local economies. Their purpose is to create both avenues of advancement for current workers, jobseekers and future labor market entrants and a supply of qualified workers for local employers. As such, they also help to strengthen the “supply chains” that produce and keep up-to-date a region’s knowledge workforce.

Career pathways, however, cannot be purchased off the shelf. The specific form and content of a career pathway will depend on the particular industries targeted, the requirements of employment and advancement in the target sectors, and existing programs and resources for preparing workers for employment in those sectors. Building a career pathway is a process of adapting existing programs and services—and adding new ones—to enable individuals to advance to successively higher levels of education and employment in the target sectors. Where it is most effective, the career pathways process helps to transform institutions and organizations involved in education, employment and social services. The process strengthens cooperation between these actors in ways that improve their individual and collective capacities to respond to the needs of local residents and employers.

Community colleges often play a linchpin role in career pathways. The career pathways approach helps community colleges better align their various mission areas of workforce development, academic credentialing and transfer preparation and remediation. Students entering into adult literacy or college remedial coursework are better able to advance to and succeed in college-level programs, and all students can more readily earn post-secondary credentials and make progress toward a career. Pathways commonly feature community colleges working in partnership with other

educational entities and with workforce and economic development agencies, as well as with employer and labor groups and social service providers, to ensure that investments in education and training pay off for their region's economic vitality.

Other common characteristics of career pathways include:

- Extensive reliance upon data, from the initial step of selecting industries or occupations for pathway development, through the work of identifying gaps in education and training for the target industries, and finally evaluating how successful efforts to improve educational attainment and economic advancement in those industries have been.
- Use of “road maps,” jointly produced by educators, workforce development professionals and employers, that show the connections between education and training programs and jobs at different levels within a given industry or occupational sector at different levels.
- Clear linkages between remedial, academic and occupational programs within educational institutions, and easy articulation of credits across institutions to enable students to progress seamlessly from one level to the next and earn credentials while improving their career prospects and working within the field.
- Curricula defined in terms of competencies required for jobs and further education at the next level, and, where possible, tied to industry skill standards, certifications or licensing requirements.

KEY FEATURES OF CAREER PATHWAYS

- Target jobs in industries of importance to local economies
- Create avenues of advancement for current workers, jobseekers and future labor market entrants
- Increase supply of qualified workers for local employers in the target industries
- Emphasis on “learning by doing” through class projects, laboratories, simulations and internships.
- Programs offered at times and places (including workplaces) convenient for working adults and structured in small modules or “chunks,” each leading to a recognized credential.
- The flexibility to enter and exit education as participants' circumstances permit.
- “Wrap-around” support services, including career assessment and counseling, case management, child care, financial aid and job placement.
- “Bridge programs” for educationally disadvantaged youths and adults that teach basic skills like communication, math and problem-solving in the context of training for advancement to better jobs and post-secondary training.²
- Alignment of both public and private funding sources, such as the Carl D. Perkins Vocational and Technical Education Act (Perkins), Workforce Investment Act (WIA), Temporary Assistance to Needy Families

(TANF), state and federal financial aid and employer tuition reimbursement, and sharing of costs among partners to provide needed education and support services in a cost-effective way.

At each point along career pathways, the objective is not only to prepare youths and adults for the next levels of education and employment, but to motivate them to advance by exposing them to the opportunities available.

Purpose and Organization of This Guide

In 2002, Workforce Strategy Center published a study titled *Building Career Pathways Systems: Promising Practices in Community College-Centered Workforce Development*,³ which profiled emerging efforts across the country to build career pathways and identified features that make them effective. Since then, we have worked with regional coalitions of community colleges, high schools, social service, workforce and economic development agencies, and employer and labor groups across the country to build pathways in a wide range of sectors. We have also advised state agencies on how to support statewide development of career pathways. This guide presents the lessons from that work.

The guide is designed for local actors, such as professionals in community colleges and workforce, social service and economic development agencies, who are looking to render their institutions more responsive to the needs of the individuals, employers and communities they serve. It is also intended for state agencies seeking to invest scarce public resources in efforts that will pay off for state and local economic development. It is organized as follows:

Section Two describes the work of building regional career pathways partnerships. We have broken down this process into five stages, which we call Gap Analysis, Career Pathways Planning, Implementation, Continuous Improvement and Expansion. We discuss the specific steps involved in each stage. The chapter includes examples for each stage, detailing how pathways partnerships across the U.S. have approached the process of building career pathways.

Section Three considers the roles that state leaders and agencies can play in helping to cultivate pathways partnerships statewide. State actors can do this by setting forth an overall guiding vision, engaging and supporting local actors, breaking down silos within and between state agencies, reallocating funding to support career pathways, and establishing systems of performance measurement that promote continuous improvement. To illustrate these points, we consider the experiences of a handful of states on the leading edge of career pathways development, including California, Kentucky, Ohio, Oregon and Washington.

Finally, Section Four looks at lessons learned from the experience of states and localities in developing career pathways to this point. For a more in-depth discussion of the rationale for career pathways and a case study of a well-developed career pathways effort in Elizabethtown, Kentucky, please see our report *Career Pathways: Aligning Public Resources to support Individual and Regional Economic Advancement in the Knowledge Economy*.

GUIDELINES FOR BUILDING A REGIONAL CAREER PATHWAYS PARTNERSHIP: OVERVIEW OF THE PROCESS

Based on our work with regional partnerships and states across the country, Workforce Strategy Center has developed the following five-stage process for building career pathways. Broadly speaking, we might characterize these stages as Gap Analysis, Career Pathways Planning, Implementation, Continuous Improvement and Expansion.

Gap Analysis: Target industries and jobs that will support individual advancement and regional growth

- 1.1 Analyze the current and projected supply and demand for labor in the region, identifying industries offering jobs with family-supporting wages and opportunities for advancement.
- 1.2 Assess the strengths and weaknesses of existing education and workforce development services for the target sectors, and identify gaps where needs are currently unmet.
- 1.3 Consider the return on potential public investments.

Career Pathways Planning: Form a partnership to develop a career pathways plan

- 2.1 Organize partners, including education and training providers and workforce, economic development and social service entities, to develop the plan.
- 2.2 Involve employers in mapping the structure of jobs, job requirements and advancement pathways in the target industry sector(s).
- 2.3 Rethink partner programs and services to support career entry and advancement in

the target sector(s).

- 2.4 Identify costs, and develop a funding strategy.
- 2.5 Develop a stakeholder engagement and communications plan to build broadbased support for the career pathways vision and goals.

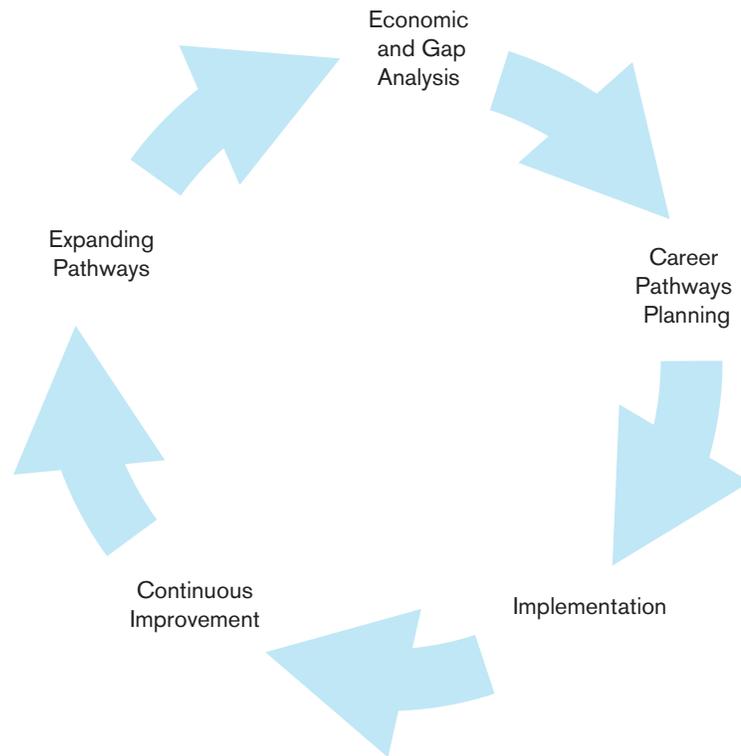
Implementation: Coordinate the work of the partners

- 3.1 Establish memoranda of understanding specifying the roles, commitments and contributions of each partner, including employers.
- 3.2 Coordinate the work of the partners, including program development, marketing and recruitment, delivery of programs and support services, job development and outcomes tracking.

Continuous Improvement: Evaluate and continuously improve career pathways programs and services

- 4.1 Conduct regular in-process reviews of program performance.
- 4.2 Track the employment and further education outcomes of participants at each level.

FIGURE 1: THE CAREER PATHWAYS PROCESS



- 4.3 Make adjustments based on evidence of program effectiveness and impacts.
- 4.4 Regularly reevaluate the mission, vision and goals.

Expansion: Expand the pathways process to involve other partners, populations of participants and sectors

- 5.1 Apply the pathways model to additional populations or geographic areas, expanding the partnership to include other organizations as needed.
- 5.2 Replicate the pathways process in other

industry sectors of importance to the local economy.

Figure 1 above shows how these five stages, taken together, create a continuous process of assessing career opportunities afforded by the local economy now and in the future. The process revamps existing programs and services to better enable residents to seize those opportunities and meet employer needs, and it evaluates the outcomes in order to make further improvements.

More Detailed Guidelines for Each Stage

In this section, we provide guidelines for implementing each stage of the career pathways process along with examples from actual partnerships. Workforce Strategy Center has created a website at www.workforcestrategy.org that features additional examples and up-to-date tools for use in implementing the process.

1.

Gap Analysis: Target industries and jobs that will support individual advancement and regional growth

The purpose of this stage is to select the industries or occupational fields—and the specific jobs within those fields—to target for career pathways development. Once the target sector or sectors and jobs have been identified, the next steps are to assess how well current programs are meeting the workforce needs of the sector and then determine whether each sector warrants investment of public funds.

- 1.1 Analyze the current and projected supply and demand for labor in the region, identifying industries offering jobs with family-supporting wages and opportunities for advancement.

The first task is to determine which industries and jobs in the region⁴ offer wages and advancement prospects sufficient to enable residents to support themselves and their families.

In many parts of the country, state or local economic development entities regularly conduct labor market analyses. If the region does not have up-to-date

economic development analyses or plans, it is important to involve economic development planners, civic and business leaders, and industry associations and labor groups in addressing the following questions:

- Which industries are of economic importance to the region?
 - What are the largest employers in the region?
 - Which industries are growing in employment? Which are declining?
 - What, if any, emerging industries are important to the future of the region?
 - Are leaders in the region actively seeking to attract or retain specific industries or jobs? If so, what are they?
- What are the employment opportunities in the industries identified?
 - What are the characteristics (age, gender, race and ethnicity, place of residence) of workers in each key industry? Does each industry's workforce reflect the overall demographics of working-age adults in the region? If not, in what ways does the industry's workforce differ from the larger working age population?
 - What is the current and projected demand for new hires in each industry?
 - Do local employers have difficulty hiring for these jobs? If so, why?
 - Do they have trouble retaining workers in these jobs? If so, why?
 - What are the wage levels of jobs that employers are looking to fill? Which jobs offer compensation and benefits to support a family? Do these jobs offer

opportunities for advancement?

- What are the requirements, educational and otherwise, for these jobs?
- Which industries and jobs offer the best wages and advancement opportunities for individuals without a college degree?

State and local education, workforce development and economic development agencies often have data on hand to answer these questions. Employer associations are also a good source of data on employment in given industry sectors. For example, hospital associations in many states keep extensive data on employment in the health care field, including information on wage levels and projections of openings by job type.

1.2 Assess the strengths and weaknesses of existing education and workforce development services for the target sectors, and identify gaps where needs are currently unmet.

At this point, career pathways planners have identified one or more target sectors for potential career pathways development. Now the question is what programs and other services are currently operating that can be built upon. The next task is to assess the quality and scale of existing programs and services and to determine if there are gaps in the current approach to educating and training for employment in each target sector. The scope of the analysis should extend beyond publicly supported programs and services to include private providers, especially employers themselves.

- What programs and services currently exist in the region to prepare workers for entry and advancement in jobs within the target sector(s)?
 - How many individuals participate annually in these programs and services? What is the demographic breakdown of participants?
 - How many individuals complete education and training at each level? At what rate do participants who begin these programs complete them? Do particular groups succeed or fail at substantially higher rates than others? If so, why?
 - How successful is each program in helping participants secure employment or advance within a target field?
 - Are employers satisfied with the quality of graduates from each program?
 - How do employers, participants and instructors believe these programs might be improved?
- How readily do graduates from existing programs advance from one level of education and training in each field to the next? What are the barriers to educational advancement?
- Are these programs meeting current labor market demand? Given the projected demand for employment in the target sector, are sufficient numbers of young people entering post-secondary education and training in the field?
- Are recent high school graduates in the region sufficiently well prepared for post-secondary learning in the target sector(s)?

- What programs exist to prepare adults with basic skills deficiencies and limited work histories to enter and succeed in post-secondary education and training in the target field(s)?
 - How many participants do these “bridge” programs serve annually?
 - How effective are they?
 - How can they be improved?
- Do any current programs prepare workers dislocated from this and other industries for good jobs that employers in the target sector(s) are currently looking to fill?
- How much do the existing training and employment programs cost? How are they funded?

1.3 Consider the return on potential public investments.

When individuals and firms decide whether and how to invest in training, they consider the tradeoffs between the costs and their expected returns. From the jobseeker’s perspective, the tradeoff is between the cost of training and the wages forgone while in training, on the one hand, and projected wage gain upon graduation, on the other. From the employer’s perspective, the tradeoff is between the cost of training and work time lost, and projected productivity or other gains after their employees finish training. Public decision makers should consider similar tradeoffs when considering how to invest public funding in education and training.

Since career pathways rely heavily on publicly funded programs and services, pathways planners should look to select

target industries where there are “market failures”—that is, cases where private investment from individuals and employers is not enough to support individual advancement, address employer needs, and maximize economic growth.

In choosing a sector for public investment in career pathways development, decision-makers should give priority to industries and job titles within them that offer opportunities for good wages and job advancement to individuals who are disadvantaged educationally and economically. These include youth and young adults who are not on the traditional path toward a bachelor’s degree; adults who have poor basic skills; those who are chronically unemployed or “underemployed” in low-wage, dead-end jobs; and workers who have been displaced from their previous jobs and lack the qualifications for employment elsewhere at comparable levels of pay and benefits.

EXAMPLES:

The Metro Denver region has been a national leader in economic and employment growth in recent decades. Much of this growth has been aided by the influx of educated workers moving into the region, attracted by the natural amenities and a favorable job market. Unfortunately, the in-migration of talent has overshadowed problems with the educational pipeline for developing the homegrown workforce, leaving many natives unprepared with skills to compete in the knowledge economy. Recognizing the problem, leaders at the **Metro Denver Economic Development Corporation (EDC)** partnered with numerous agencies and organizations representing education, workforce development and

business to address the situation. Focusing on four growth industries— aerospace, bioscience, information technology and energy—the EDC is conducting research through a series of analyses,⁵ including forecasting the availability of qualified labor in comparison to demand in the target industries; estimating the availability of workers with skills nearly transferable into target industry jobs; and shift-share analyses in conjunction with the aforementioned forecasting to assess the potential for influencing regional comparative advantage. The EDC also estimated multiplier effects⁶ associated with growth in the four industries. Armed with good economic intelligence, a strong partnership and a sound strategy for addressing regional challenges, the partners were awarded a competitive WIRED (Workforce Innovation in Regional Economic Development) grant by the United States Department of Labor in 2006.

Pathways work at **Ivy Tech Community College of Indiana** in Columbus, Indiana, began after staff conducted a thorough survey of local employers' workforce needs. Based on the results, the college targeted healthcare jobs, leveraging strong pre-existing relationships with local healthcare industry employers to create healthcare career pathways in partnership with local high schools, Columbus Area Career Connection (a group of career and technical schools), and Indiana University Purdue University Columbus (IUPUC). At the outset, the survey of employers revealed demand for central service technicians (CST) to sterilize and prepare surgical equipment—a job for which there was no formal training available in the region. In response, the Surgical Technology program was developed in 2000.

Thus, the research at the outset of the initiative led to an informed decision about what sector and jobs to target. Since the new program started, the pathways effort has framed multiple partnerships between educational and other institutions in the region resulting in opportunities ranging from high school through baccalaureate degrees.

2.

Career Pathways Planning: Form a partnership to develop a career pathways plan

During this stage, planners will assemble the partnership of organizations that will be involved in building career pathways in the target sectors.

- 2.1 Organize partners, including education and training providers and workforce, economic development and social service entities, to develop the plan.

The metaphor we sometimes use in describing career pathways partnerships is that of a “supply chain” in which different organizations work in concert to produce a complex product. In this case, the producers are the educational, workforce, economic development and human services organizations involved in a pathways partnership, and the product is a worker who is qualified to enter or advance in the target field. For career pathways to succeed, multiple organizations must collaborate to support career entry and job advancement in the target sector. The particular strengths and resources each partner brings to the collaboration will determine the role that partner will play.

The following types of organizations are often involved in career pathways partnerships:

- Employers and employer associations
- Labor groups
- Economic development agencies
- Workforce investment boards
- One-stop career centers
- Community and technical colleges
- High schools
- Universities
- Adult basic education providers, including ESL and GED
- Trade schools and adult career centers
- Community organizations
- Public assistance and unemployment offices
- Workforce consulting and research firms.

ENGAGING EMPLOYERS

Pathways organizers often find employers the most difficult partners to engage, but for career pathways to succeed, intensive and sustained participation by employers is a must. If the target industries are unionized, it may be important to involve labor groups as well.

As when approaching other potential partners, the key to winning employer buy-in is to speak to the employer's interest. While businesses may be supportive of public programs, their overriding aim is to earn profits. To obtain a commitment that goes beyond the symbolic, pathways organizers must articulate the benefits of employers' involvement in ways that show potential for meeting bottom-line business needs or goals.

Frequently, public-sector and non-profit organizations find it difficult to arrange initial meetings with employers. During the planning stage for the St. Louis MET Center initiative, pharmaceutical manufacturers indicated that it is hard for companies to judge which community-based programs to support. Many large companies are regularly approached by non-profit organizations seeking partnership in various initiatives. It became obvious to the pathway organizers that in order to gain any traction with companies, the pathway initiative would have to differentiate itself from all other "suitors."

In such an instance, it can be useful to work with organizations that have enjoyed successful partnerships with the target employers in the past. In St. Louis, when initial attempts to meet with biopharmaceutical employers stalled, assistance from St. Louis county economic development officials provided enough clout to gain entry with human resources staff in several companies.

In our work with pathways partnerships across the country, Workforce Strategy Center has found it helpful in starting conversations with employers to construct an agreement that clearly spells out what employers can expect to gain and what is expected of them in return. This document, which we call a "term sheet," helps pathways partners develop a common language and understanding with employers. The term sheet commonly lists potential benefits for employers such as targeted recruitment and screening of candidates, input into the design of training, public support for training, and subsidized wages for new hires. It is important that employers understand just how, by having input into program design, they can reap savings such as reduced on-the-job training for individuals hired through the pathway. From the initial meeting, employers should be encouraged to see pathways programs and services as efforts to solve their workforce problems or needs.

The composition and roles in an actual partnership will depend on the goals of the effort, the pre-existing relationships among the prospective partner organizations, and the capacities and resources of each.

One of the most challenging tasks in building career pathways partnerships is negotiating the interests of the various partner organizations so that each will benefit from its involvement. We recommend having one organization serve as the lead agency responsible for orchestrating the development and operation of the partnership. The lead agency must be a trusted organization with resources and energy to devote to partnership development and management. Every potential partner must view the lead agency as an “honest broker.”

When approaching organizations to become partners, whichever group is doing the organizing should consider not only what capabilities and resources prospective partners would bring to the partnership, but also how these organizations and their various constituencies might benefit from getting involved: increased enrollment, expansion into new areas of work, access to new funding sources, and so on. This focus on the benefits to potential partner organizations will help to secure buy-in from top leadership in each organization, which, as with any collaborative venture, is critical to the success of a career pathways partnership.

2.2 Involve employers in mapping the structure of jobs, job requirements and advancement pathways in the target industry sector(s).

Whenever the goal is to move different groups in the same direction, it helps to have a map. Such is the case with career pathways, where often the biggest challenge is to convince a diverse group of organizations and actors that they share common goals.

Included in this document are sample maps from actual career pathway initiatives. Figure 2 is the Healthcare Career Pathways map from Lakeland Community College in Ohio. Designed in partnership with several education and workforce organizations and employers, it shows three pathways in the healthcare industry. Figure 3 is a career pathways map for accounting—bookkeeping offered through a partnership between Mount Hood and Portland Community Colleges. Figure 4 is a career pathways map for childhood and family education offered by Southwestern Oregon Community College. These maps can help illustrate the opportunities and pathways for advancement from one job level to the next in the target sector.

The maps can also help to guide inquiry into more in-depth questions that should be explored to understand the “demand side” of career pathways.

- How are jobs structured in the target sector(s)? What are the various functional groupings of jobs in the sector(s)? What are the job levels within each functional area?
- What employers hire for jobs in the target sector(s)? How do they find workers for these jobs—print or Internet advertising, promotion from within, temporary workers, workforce development agencies or other means?

- What qualifications do local employers seek in applications for the jobs at each level?
 - What professional certification or licensing standards exist for jobs at any level in this sector?
 - Do employers in the region use industry skill standards in hiring or promotion?
 - Are there other key qualifications that employers seek?

- What are the requirements and paths of advancement from each level to the next?

While labor market data from government research or industry associations can help to provide some insight into these questions, there is no substitute for direct input from employers. Working with employers to map the structure of jobs can help uncover labor market problems or opportunities that career pathways might help to address or exploit. The mapping process also helps to frame discussions between employers, on the one hand, and educators and other service providers on the other hand, as it helps to clarify the roles each group can play in helping to build each stage of the pathway.

Individuals who have graduated from education or workforce development programs and are now employed in the target sector are another excellent source of information. Colleges and workforce development providers should reach out to their “alumni” to determine what they consider the key requirements for success in the given field, what they wish they had learned before entering the field, and what program changes they believe would improve the preparation

of future entrants.

Career pathways developers should expect that employers usually want to discuss their workforce issues at all levels of employment, not just the entry level. It may be that their most pressing needs are not at the entry level. Career pathways maps are a useful tool in such cases because they allow conversations about the full spectrum of jobs from entry level through management.

EXAMPLE:

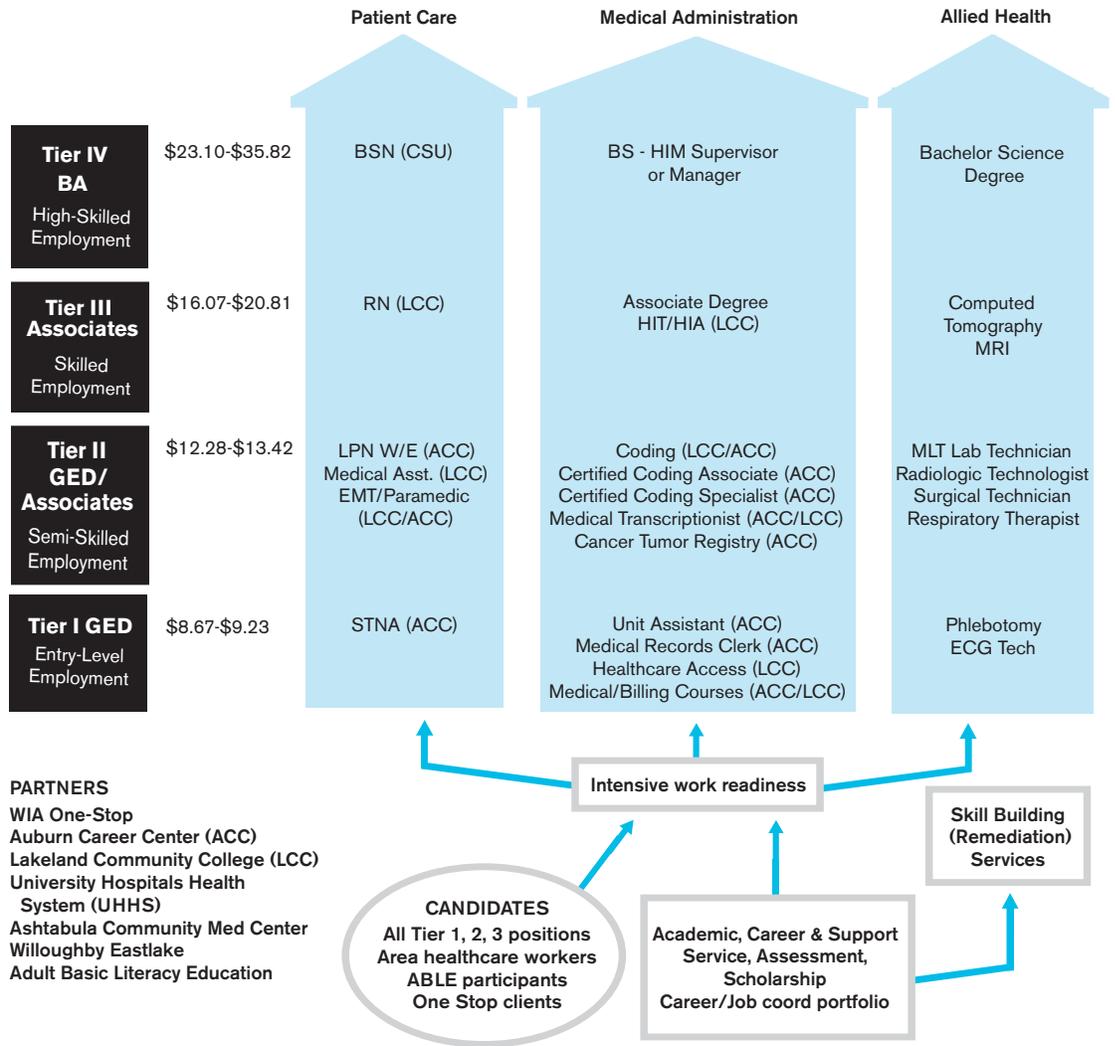
Houston's Gulf Coast Workforce Board

approaches workforce and economic development efforts with a strong emphasis on employer involvement. The board has identified nine high-growth, high-skill industries including healthcare, aerospace and energy. In collaboration with the Greater Houston Partnership, the American Petroleum Institute, and other business groups, the board brings together employers to identify human resource problems. Other organizations, including local schools and colleges, workforce providers, economic development agencies, non-profit agencies and foundations are invited to help craft solutions to the problems identified. Thus, the process is collaborative, but ultimately the products are driven by the needs of employers.

2.3 Rethink partner programs and services to support career entry and advancement in the target sector(s).

Partners will need to build on the knowledge assembled during the gap analysis, partner development and mapping phases to reconsider their current programs and services. Existing programs and services for employment

**FIGURE 2: LAKELAND COMMUNITY COLLEGE
HEALTHCARE CAREER PATHWAYS
KIRTLAND, OH**



in the target fields provide the starting point for creating this “supply side” dimension of career pathways. To build more coherent connections between the existing building blocks for career pathways, partner providers from education, workforce development and social services should consider how to:

- Better align existing programs and services and create new ones to ensure that, at each step, individuals can readily advance to the next levels of employment and learning in the target fields(s).
- Coordinate marketing, recruitment, intake, assessment, counseling and placement among providers to guide residents into the pathways that lead to careers in the target field(s).
- Coordinate the delivery of support services needed to enable participants to overcome obstacles to advancement and stay on pathways to careers in the target sector(s).

In developing each of these aspects of the plan, the partners should consider the following questions.

Aligning Programs and Services

- Are there clear connections among education and training programs at each level and with subsequent levels of employment and further education and training?
 - How successful are existing programs in preparing participants to enter and succeed in jobs and further education at the next level in the target field(s)?
 - Do the programs at each level have

“feeder” programs from which they can draw their participants? If not, would such feeders be of value?

- What changes in programs at each level would help better prepare and motivate participants to advance to the next level of education and employment in the target field?
 - Are programs in the target fields scheduled in a manner convenient to working adults? What changes would better accommodate working participants?
 - Are such programs offered in modules to allow participants to combine learning and work, or to “stop in and out” as their circumstances permit?
 - Do these programs use technology to facilitate the delivery of instruction and other services?

Coordinating Marketing, Recruitment and Intake

- How are participants at each stage of the recruited, and by whom? Have any of the partners conducted market research to determine the most effective sources and methods of recruitment?
- What are the characteristics of participants in current programs at each level in the target sector(s)? Where do these individuals come from (e.g., directly from high schools, community organizations, workplaces, etc.)? What motivated them to enter these programs? How did they learn about the programs? What barriers to access did they face?
- Are there other sources of participants that

have not been tapped for the programs at each level? Have providers considered recruiting individuals who might not otherwise participate in post-secondary occupational education and training? (Examples might include low-wage workers in the target sectors, workers displaced from other industries, college students who have not yet declared a major, or individuals who have applied for jobs or training in the field, but lack the necessary qualifications.)

- How can the partner organizations collaborate to strengthen marketing of career pathway programs, particularly to potential participants who are disconnected from existing education and workforce systems?
- Will one partner design marketing and recruitment efforts for the entire pathway, or will individual partners take responsibility for various segments of this task?
- What can be done to allow participants to enroll in a career pathway sequence through any partner organization operating at any given level of the pathway?
- To what extent can provider partners employ common (or at least coordinated) entrance standards and assessments to facilitate articulation among education and training programs at different levels?
 - What are the standards for entry into programs at each level of the pathway?
 - What assessment instruments are used?
 - How can partners coordinate assessments and program standards to ensure that individuals who successfully

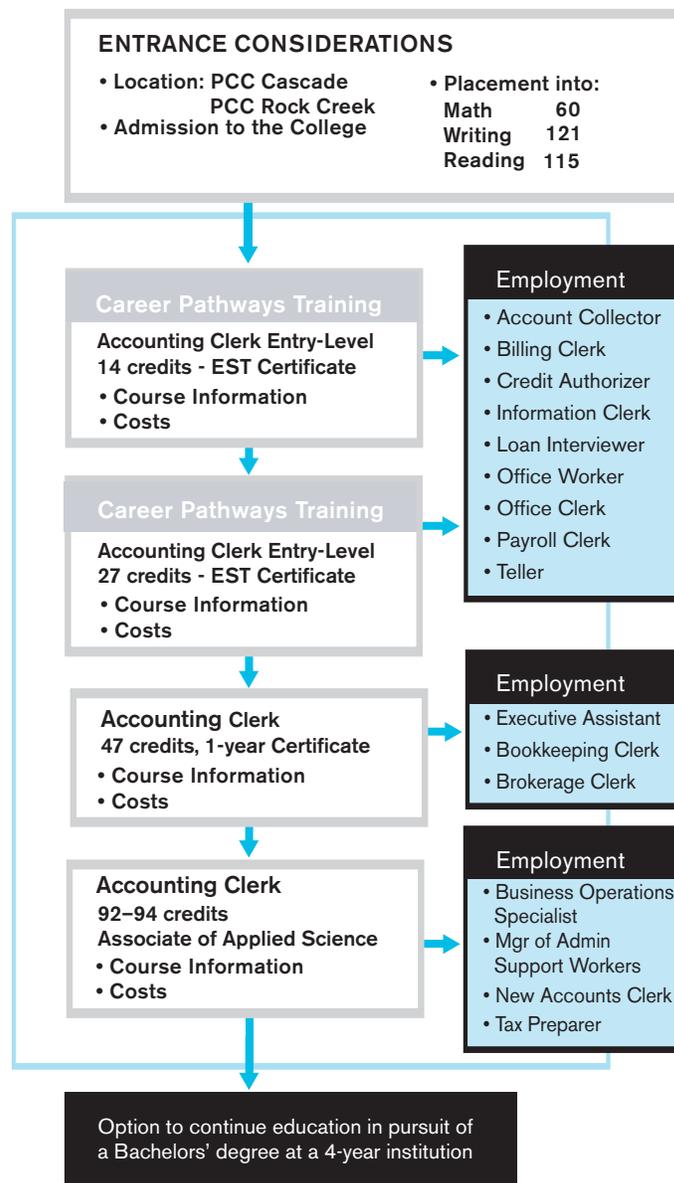
complete one level are prepared to succeed at the next?

- What needs to be done to ensure that participants entering at various levels are aware of the full range of career and educational opportunities in the target fields?
 - What advising or counseling is currently available at each program level? Are these resources adequate to the need? Do participants feel that the current advising and counseling services are helpful?
 - Can the partners coordinate referrals of prospective participants among themselves?

Coordinating Support Services

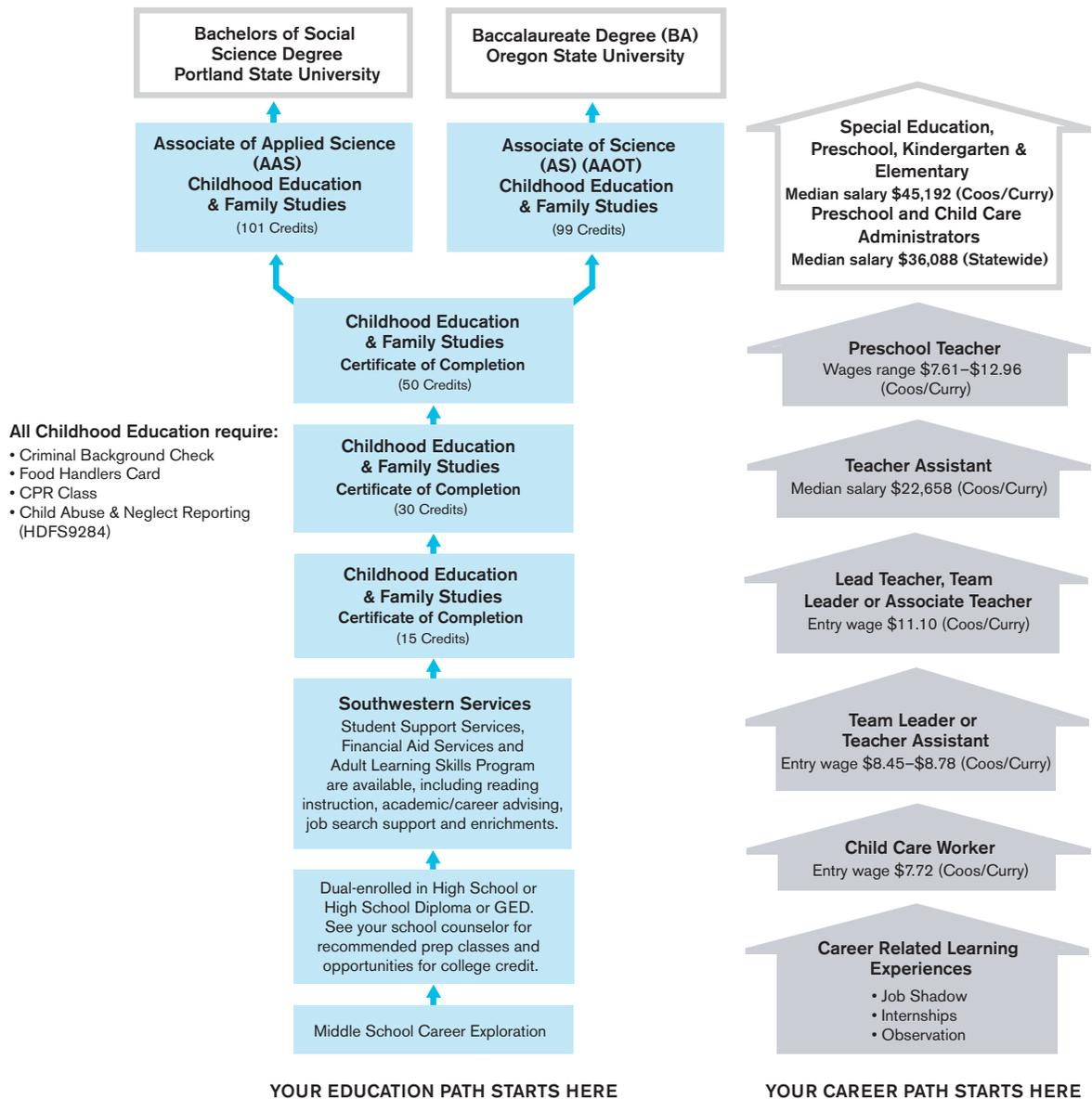
- What support services do participants need to ensure that they complete programs at any given level and move on to the next?
 - Which support services are currently provided by the partner education and workforce development organizations?
 - Are these services adequate to meet the demand? If not, what other services are needed?
 - What other institutions offer the needed services—for example, community organizations and social service agencies? How can the pathways partnership involve them in providing the necessary support services?
- How can the pathways partnership provide needed services in the most cost-effective manner?

FIGURE 3: PORTLAND COMMUNITY COLLEGE IN PARTNERSHIP WITH MT. HOOD COMMUNITY COLLEGE AND FUNDED THROUGH WORKSYSTEMS, INC. ACCOUNTING AND BOOKKEEPING CAREER PATHWAYS PORTLAND, OR



Career Pathways Training: <http://www.pcc.edu/continuing-education/career-pathways/>

**FIGURE 4: SOUTHWESTERN OREGON COMMUNITY COLLEGE
PATHWAYS TO ADVANCEMENT: CHILDHOOD EDUCATION & FAMILY EDUCATION
COOS BAY, OR**



- All Childhood Education require:**
- Criminal Background Check
 - Food Handlers Card
 - CPR Class
 - Child Abuse & Neglect Reporting (HDFS9284)

- How will partners help participants at each level to secure jobs (or advance in their jobs) within the target field(s)?
- What support will be available to inform and encourage pathways participants to pursue further education and training at the next level?

It is essential that partner organizations involve their front-line staffs, including faculty and providers of support services, in the discussion of how to strengthen and align existing programs and services in ways that facilitate educational and job advancement. Staff members represent both a crucial asset and a potential roadblock: they are best-positioned to know what is working and what is not, and unless they have “ownership” in the development of the plan, implementation is less likely to succeed.

EXAMPLES:

Originating in the Tech Prep office at New York’s **Corning Community College**, the **Central Southern Tier Tech Prep Consortium** has expanded beyond the traditional scope of tech prep. By bringing together a consortium of partners including career and technical education providers (Board of Cooperative Educational Services (BOCES), the New York State Department of Education Career and Technical Education Office, the community college and tech prep program, local school districts, Alfred State College and employers, the pathways model creates avenues of entry and advancement that are coordinated across many systems.

Southwestern Oregon Community College (SOCC) has built stronger relationships with local high schools by considering how high

school coursework prepares students for college entry, and developing dual enrollment programs to serve as points of entry for high school students into post-secondary education. SOCC students preparing for careers in childhood education, web development, medical assistance, human services, or turf and land management can progress along an educational pathway within the school, while also earning marketable credentials. Students will soon be able to earn employer-recognized certificates at intermediate steps along the path to an associate degree.

2.4 Identify costs, and develop a funding strategy.

Career pathways offer a strategy for improving the return on the public’s investment in education, workforce and social services. The career pathways process encourages service providers to work together toward common objectives, thus reducing duplication and increasing efficiency.

In devising strategies for funding career pathways, the partners should consider the following questions:

- How are current programs and support services in the target field funded?
- What are the projected costs for new programs and services at each pathway level? What possible sources exist to fund their development and operation? How can pathways partners secure the necessary resources?
- How much funding will be needed to coordinate the work of the partners?

- Are there opportunities to generate income to support the career pathways?

A key to funding career pathways is for the partner organizations to share costs and leverage each other's resources. To do this, partners might look to funding sources that might not be immediately obvious. For example, some partnerships use federal work study to provide the work experience component of pathways training. Once the partner organizations have agreed to collaborate, it helps for them to map out what funds and other resources they can bring to cover the costs of career pathways. Beyond the cost of operating education and training programs at each level, these costs include:

- Partner coordination
- Curriculum development
- Marketing and recruitment
- Work experience for students
- Support services not currently provided as part of programs (e.g., child care, transportation, etc.)

Securing resources from employers is especially important to ensuring that pathways are sustainable over the long term. Employers can contribute to career pathways in a number of ways, including release time for employees to attend training, tuition reimbursement, donation of equipment, and assistance finding and compensating instructors with industry experience. The more deeply employers are involved, the more invested they will be in the programs offered, and the greater the chances for positive labor market outcomes.⁷

EXAMPLE:

Rhodes State College in Lima, Ohio, initiated its pathways work by conducting a nine-county survey and having nearly 50 in-depth conversations with manufacturing employers to learn the nuances of their hiring and workforce development needs. The college spearheaded the formation of a consortium of employers interested in addressing the workforce needs identified through the survey and discussions with employers. Employers can join the consortium by paying a membership fee. Local high schools, joint vocational centers, adult education providers, and the WIA One Stop Centers are actively involved with the consortium. WIA Individual Training Account vouchers, student financial aid, and employer-funded tuition reimbursement are available for participants at varying stages of the pathways. Employers and providers have jointly designed a pathway leading from entry-level, semi-skilled jobs to the initial skilled positions and ultimately to skilled trades and technician opportunities. The funding model, which relies on the employer fees to support administration of the consortium, is sustainable in part because employers are so invested in the pathways effort.

- 2.5 Develop a stakeholder engagement and communications plan to build broad-based support for the career pathways vision and goals.

Career pathways represent a departure from the prevailing approach to education and workforce development, in which institutions and organizations work in isolation toward their own goals. Building support for this new, more collaborative way of doing business requires engaging key stakeholders

both within the partner organizations and externally. In developing an engagement strategy, career pathway partners should consider the following questions:

- Whose buy-in and participation are needed to successfully develop and implement career pathways?
- What are the likely sources of resistance to career pathways?
- How can career pathways partners persuade skeptics that they will benefit from the process?
- Which leaders would be effective champions of career pathways?

Conveying the right messages about career pathways to each stakeholder group is critical to cultivating the necessary “buy-in.” To ensure the most effective messages, partners should ask themselves:

- Have they clearly articulated the vision and goals of career pathways?
- What messages will they use to communicate about career pathways both internally within their organizations and to outside audiences?
- What media or forums can best be used to communicate to internal and external audiences about career pathways?
- In addition to providing information, how might communication activities encourage internal and external stakeholders to get involved?

3.

Implementation: Coordinate the work of the partners

- 3.1 Establish memoranda of understanding specifying the roles, commitments and contributions of each partner, including employers.

In our work helping to build career pathways across the country, we have found it useful to establish memoranda of understanding (MOU) to clarify the roles and contributions of each partner. (See Appendix A for a sample MOU from **New York City’s Information Technology Career Ladder Consortium.**)

- 3.2 Coordinate the work of the partners, including program development, marketing and recruitment, delivery of programs and support services, job development and outcomes tracking.

While each partner in a pathway has important strengths to leverage, the lead and the intermediary play perhaps the most critical roles in pathways development.

Lead partners are the “champions” of the effort. They generate momentum and provide the public face of the pathways design effort. With an eye on the ultimate goal of forming and sustaining multi-agency partnerships, the lead partner keeps the partners focused when energy dwindles. They are also responsible for being the “traffic cops” of career pathways partnerships meaning they oversee progress toward milestones, hold partners accountable for accomplishing tasks, set meeting and reporting protocols, and establish

partnership agreements.

Coordinating all the moving parts can become even more complicated if partners bring competing agendas to the table. At times, lead agencies lack the capacity to handle all of the day-to-day planning and coordination duties, so they designate another partner—or hire an outside organization—to fulfill “traffic cop” duties on pieces of the process.

EXAMPLE:

Leadership at **Lakeland Community College**, located 25 miles from Cleveland, has been one of the most important factors in the success of their Healthcare Career Pathways development process. The college recognized critical workforce shortages in the local healthcare industry and joined with the Auburn Career Center, a vocational and technical school, and the Lake Hospital System and University Hospitals Health System-Richmond Heights to address them. After a comprehensive set of interviews with administrators, staff managers and front line staff in many departments within the hospital systems, a clearer picture of challenges and opportunities emerged. Strong leadership in the Science and Health Division at the college, buttressed by support from the college president and strong community partners such as Auburn Career Center, has pushed the effort forward. Lakeland has assumed the role of both leader and intermediary—setting the agenda for the partnership, managing the development process, calling the meetings and championing the work.

4.

Continuous Improvement: Evaluate and continuously improve career pathways programs and services

Just as the target industries that pathways serve continuously experience change, pathways too must adapt and evolve in response to those changes.

In Stage 1, when initially planning the pathway, partners investigate the requirements for success at each level of education and employment in a target industry sector, barriers to entry and advancement in the target field, what education programs and support services that are needed to break down those barriers, and how well or poorly current programs and services are functioning. When evaluating career pathways programs, partners should ask similar questions. This means staying abreast of changes in requirements for advancement at each level of education and employment that may result from market or technological changes, and tracking how well participants in pathways programs are progressing from one level to the next. The goal throughout this process is to modify and, where necessary, add programs and services to help participants advance more readily and rapidly toward careers and further education in the target fields, while at the same time responding to the evolving needs of employers.

4.1 Conduct regular in-process reviews of program performance.

The partners offering programs at each level should conduct regular program reviews. This means evaluating the following

aspects of program performance:

- **Recruitment:** What are the characteristics of participants at each program level? Are there groups of potential participants who are not being served? In general, what are the barriers to access and how can they be removed?
- **Retention/completion:** At what rate do participants successfully complete programs at each level? Why do some participants not complete? What can be done to improve completion rates?
- **Placement:** How successful are program completers in securing employment or advancing to better jobs in the target sector? How successful are completers in advancing to the next level of education? What changes to the program could help to improve education and employment outcomes?
- **Customer satisfaction:** How satisfied are employers who hire program graduates? Do faculty members at each level of education feel that participants who have completed the previous level are well prepared to continue on? How do program completers view the quality of their experience? What suggestions do these different customers have for improving programs and services?

Because each program serves a unique mix of participants, it generally makes sense to benchmark the performance of programs against their own historical performance.

Partners should bear in mind that failure is often a better teacher than success. For

example, providers should make every effort to interview participants who drop out to find out why they are leaving and what can be done to prevent attrition in the future.

4.2 Track the employment and further education outcomes of participants at each level.

Career pathways are distinct from most educational efforts in their dual focus on advancement to higher levels of both education and employment. Most educational institutions, however, are unaccustomed to comprehensively tracking the enrollments of students from one level of education to the next—from high school to college, for example—let alone completion outcomes in ensuing levels of education. Ideally, partners should conduct this tracking in a way that helps them evaluate how a particular course might add to a student's success in advancing to and excelling in the next level of education.

One way educational institutions can track these outcomes is to develop data-sharing agreements that allow “matching” of data on students at one level with the records of students at the next level. In this type of arrangement, an institution at one level—a high school, say—shares transcript records of its students with a two-year or four-year college that its students are likely to attend. The receiving institution then uses students' Social Security numbers or other identifiers to match these records with its own. Both schools can then analyze the matched data to determine how well students who complete one level fare at the next, and what each can do to enhance students' prospects for educational

advancement. The Cal-PASS initiative in California is building such data sharing arrangements among high schools, community colleges and universities in a growing number of regions within the state.

States in which state education agencies collect transcript-level detail on individual students, including Florida (for public education at all levels), Ohio (for two- and four-year public colleges), and Washington State (for community colleges only), can do such matching at a state level. If the necessary data are not available locally or from the state, partners can pay the National Student Clearinghouse to match individuals (using name and date of birth) against its database of students in undergraduate programs across the country. The NSC database is limited, however, in that it will indicate what institution a student attends, but does not provide any details about how well the student performs or whether he or she completed their studies at the receiving institution.

Few educational institutions track the employment outcomes of their students. Probably the most reliable way of tracking students' employment and earnings after leaving school is to use Unemployment Insurance wage records. By law, all employers with employees eligible for unemployment insurance (UI) must report the quarterly earnings of every employee to the state or states in which they work. States use this information to calculate unemployment insurance benefits. In most states, the employment security agency is responsible for collecting UI wage data. In many states, educational institutions and other human service providers can match data on their participants with wage record

data. Providers can then use these data to examine the earnings progression of program participants.

While it is helpful to track student outcomes using administrative data, it is essential that pathways partners also validate their data by interviewing employers that hire program graduates, as well as faculty and staff at the next level of education, about the strengths and weaknesses of the programs at each level and how they can be improved.

4.3 Make adjustments based on evidence of program effectiveness and impacts.

The purpose of collecting data on program effectiveness and impacts is to use this information for program improvement. We recommend involving faculty, staff and outside partners in this process. Any proposals to modify a program should be based on a thorough analysis of program strengths, weaknesses and gaps. Also, it is critical to evaluate program modifications to see if they do in fact lead to improved outcomes.

4.4 Regularly reevaluate the mission, vision and goals.

As with most any endeavor, it makes sense regularly to review the mission, vision and goals of the partnership to ensure that they still make sense in light of the evolving needs of participants, employers, and local communities.

EXAMPLE:

The Metropolitan Education and Training (MET) Center in St. Louis has implemented a thoughtful and effective process for

improving career pathways quality in the field of life sciences. Exit interviews with students, follow-ups with graduates and regular contact with employers provide robust feedback to supplement in-house assessments by instructors and program staff on how to improve the program. These efforts around continuous improvement have led to numerous adjustments including changes in recruitment and assessment practices, several evolutions of program curricula, and an expanded role for employers in the delivery of training. (See Section Three for examples of how states use administrative data to track outcomes in career pathways projects.)

5.

Expansion: Expand the pathways process to involve other partners, populations of participants and sectors

A typical strategy for engaging regional partners is to choose a single industry or a small set of industries in which the career pathways concept can readily take root. This often means that industries with highly visible labor shortages, substantial political support (and thus a stronger chance of public funding), or well-established sequences of advancement within a field of work are selected first. These days, healthcare is a popular first choice because its hiring needs are well-known and acutely felt, its employers and workers are politically strong, and career progressions are relatively well-established and sometimes already present in some form.

But once partnerships are operating and career pathways are established in an initial industry, other opportunities will become apparent. For one thing, it is possible that

some employer demand remains unmet, whether for jobs that the partnership has already incorporated into the pathways or for jobs not currently part of the project. In the first case, partners must figure out how to increase capacity; in the second, they must address the new demand. More broadly, there are always more partners to involve, more industries to engage, and more diverse populations of jobseekers or workers to serve. Expanding the career pathways process involves circling back and repeating many of the stages and steps described above.

In other instances, evaluations of pathways will reveal that participants are experiencing distractions related to family, personal problems and other out-of-class matters while in training. If these needs are not currently met by the organizations involved in the pathways effort, it may be necessary to recruit other organizations. This can entail inviting additional organizations to join the partnership. For example, community organizations and social service agencies can often support training programs by providing services like child care. They also can serve as recruiting partners by steering interested individuals into the program.

5.1 Apply the pathways model to additional populations or geographic areas, expanding the partnership to include other organizations as needed.

In every pathways initiative, we find that groups of potential participants fail to meet entry standards and thus are not able to take part. If partners can devise effective strategies to prepare such individuals for pathways training, additional populations of potential workers can gain access to training

and get on a career pathway. Middle and high school students, public assistance recipients, displaced workers and others can gain access to pathways through efforts such as high school/college dual enrollment and “bridge” programs that connect adult basic education and post-secondary career and technical education. To reach broader populations of participants, it helps to reach out and involve organizations that serve them—high schools, churches or other community groups—in the career pathways partnership.

5.2 Replicate the pathways process in other industry sectors of importance to the local economy.

A growing number of career pathways partnerships that have succeeded in building pathways in an initial industry are expanding to new ones. It may not be necessary to repeat each step of the process because the partners may be able to build on what they have learned thus far. Partners should at least review each step of the process when planning an expansion.

EXAMPLES:

The area around **Gateway Community College** in Kentucky is expecting high demand for manufacturing workers due to industry growth and significant turnover due to retirements in the coming years. Leaders from the college have spearheaded the development of a manufacturing pathway that involves partners from the K–12 system, a local university, and the Workforce Investment Board. The pathway has managed steady growth expanding from an initial offering of an Associate of Applied Science in Manufac-

turing Engineering Technology to include three additional manufacturing certificates, an evening program, and a dedicated recruitment program. Since its inception in 2005, the number of students has more than doubled.

Rural Elizabethtown, Kentucky, has experienced a rapid loss of manufacturing jobs in recent years. In response, **Elizabethtown Community and Technical College (ECTC)** and the local Workforce Investment Board (WIB) joined forces to seek ways to help residents, including those recently displaced, find jobs that pay family supporting wages. Using grant funding from the Kentucky Community and Technical College System and the Workforce Investment Act, the partners worked with local hospitals and other employers to develop career pathways to address pressing needs for qualified workers in a small number of healthcare jobs. Building on the success of the healthcare career pathways, the partners developed a second career pathway in the transportation industry in 2005. As with healthcare, this effort evolved in response to a direct employer need: the Kentucky Transportation Cabinet approached ECTC and the local WIB with a request to train workers for the agency, which expects to lose as much as one third of its workforce to retirement by 2008.

ROLES FOR STATES AND STATE AGENCIES IN SUPPORTING CAREER PATHWAYS DEVELOPMENT

While the primary work of career pathways takes place at the local level, states can play an important supporting role. A number of states have adopted career pathways as the framework for their efforts to promote education and labor market advancement for their residents and help their education and workforce systems become more responsive to local economic needs. States in the vanguard of this work include Arkansas, California, Kentucky, Massachusetts, Ohio, Oregon and Washington.

In this section, we draw on the experiences of these states to examine how states generally can support the development of career pathways. Specifically, we describe how states can promote progress on pathways by:

- Setting forth a guiding vision
- Engaging and supporting local actors
- Breaking down silos within and between state agencies to encourage local cooperation
- Reallocating funding to support career pathways
- Establishing a performance measurement system that fosters continuous improvement

Setting Forth a Guiding Vision

As with any effort to bring about systemic change in policy and practice, leadership is crucial to the success of career pathways. Each state has a unique political environment with a greater or lesser degree of administrative

centralization; accordingly, efforts to affect policy change gain traction in different ways from state to state. State-level officials can help promote the development of career pathways by articulating a vision that helps to change mindsets about what is possible and encourages a critical rethinking of the status quo. Such a vision should emphasize how citizens, employers and local communities will benefit from the career pathway approach. At the same time, the vision should include measurable goals that lead to increased alignment among education, workforce development, social service and economic development agencies and entities.

GUBERNATORIAL LEADERSHIP

Governors sometimes provide the impetus and guiding vision for career pathways, particularly since they are better positioned than any other individual actor to encourage or mandate the inter-agency cooperation and coordination crucial to realizing such a vision.

EXAMPLE:

Oregon provides an excellent example for how a governor's vision and leadership can result in the flourishing of career pathways models across a state. In spring 2004, Governor Ted Kulongoski challenged the state's education and workforce systems to enable "all Oregonians, residents and businesses, to have the skills and resources to achieve economic prosperity."⁸ In response, top administrators from the Oregon Department of Community Colleges and Workforce Development and Oregon Workforce Investment Board, together with staff from the governor's office, launched the Oregon Pathways to Advancement initiative with the aim of ensuring that "all Oregonians have access to post-secondary skills, credentials, certificates and degrees that are valued in the current and future economy leading to good jobs and higher wages." The agency heads formed a steering committee that set the following goals for the initiative:

- Increase awareness of the benefits of post-secondary certification and credentials
- Increase accessibility and affordability for part-time, low-income, working adults
- Increase resources for essential support services to help students achieve their post-secondary goals
- Increase alignment between the state's education and workforce systems
- Increase post-secondary degrees, certificates of completion and industry certifications earned through articulated pathways.

To achieve the vision and goals, the pathways team emphasized the need to "transform education and workforce delivery systems to be customer-focused and responsive to changing student, worker, and

business demands—customized, just in time, just enough, just for me."

AGENCY LEADERSHIP

State agencies can also play leadership roles in creating a vision for career pathways. In some cases a single agency might spearhead the effort, in other cases, multiple agencies come together and share leadership responsibilities.

EXAMPLES:

In 2001, the **Board of Governors for the California Community Colleges** adopted a new policy initiative called "Ladders of Opportunity."⁹ For the first time, the system articulated an overarching vision highlighting the central role played by the state's community colleges within the larger workforce development system. The board engaged leaders from colleges, the state workforce system, and the legislature, with staff from the governor's office, in a consensus-building process that culminated in a call for a unified approach to workforce preparation and career advancement in California—one that would be "founded on career ladders, universal, seamless, regional, strategic and collaborative." The Board's initiative aimed to "foster a system of career ladders throughout the state" that would offer "all Californians, and particularly for low-income individuals, an opportunity to attain jobs that provide a living wage and the opportunity to advance to positions requiring greater skills, greater responsibilities and, accordingly, higher pay."

The **Kentucky Community and Technical College System (KCTCS)** was established in the late 1990s to increase access to post-secondary education in a state where comparatively few people traditionally have gone to college. The system was also designed with strong workforce and economic development

missions, with the aims of enabling Kentucky workers to acquire the skills they need to advance and retaining and attracting employers, particularly those in “new economy” industries. KCTCS was created from the previously separate community and technical college systems, so a central thrust of the development of the system has been to integrate the community and technical college missions of academic instruction, workforce training and remedial education. In 2003, Drs. Michael McCall and Keith Bird, the system’s founding president and chancellor, launched a career pathway initiative as a strategy for achieving this “mission integration” and thereby enhancing the responsiveness of the state’s community and technical colleges to the educational needs of the state’s residents, employers and communities.

The impetus for the career pathways work in Washington State came from a series of studies conducted by the **State Board for Community and Technical Colleges (SBCTC)**. One study tracked the enrollment patterns and education and labor market outcomes of students who entered the state’s community and technical colleges through English-as-a-Second-Language and other adult basic skills programs.¹⁰ The study found that, on average, students who advanced beyond basic skills programs and then entered and completed college-level occupational certificate or degree programs had the highest earnings gains; however, too few adult basic skills students made it to that critical threshold. The SBCTC used the findings from this study, and the fact that there are as many low-skill adults currently in the Washington State workforce as there will be students in the next ten graduating high school classes in the state combined, to win

support from the college presidents, the state board and the legislature for efforts to improve the transition of students in adult basic education programs into college-level occupational programs that lead to well-paying jobs.

Another study by the SBCTC and the **Washington Training and Education Coordinating Board** projected that the state will experience an increase in demand for workers with bachelor’s degrees in technical fields.¹¹ The study identified a cohort of students in community college associate and technical degree programs as a potentially important source to meet this demand, and estimated that an additional 3,000 transfer students will be needed by 2010. Based on the findings, the study team offered recommendations for expanding the number of two-year college students who transfer to bachelor’s degree programs in high-demand technical fields. One strategy is to increase the number of “university center” sites, where universities offer bachelor’s degree programs on community college campuses. Program offerings at each site are determined based on an assessment of the demand for bachelor’s degree workers in particular fields. Also considered is which programs offered by the host community college could serve as feeders for the university center programs. The Washington State legislature previously called for the establishment of university centers on many of the community college campuses and had set aside funds to support them. Currently, twenty-four community colleges in the state operate university centers in partnership with four universities. Following the recommendations of the study team, the SBCTC is now working with these and other colleges to increase the number of

centers and expand offerings in fields where demand is strong.

LEADERSHIP FROM THE OUTSIDE

Sometimes leadership for career pathways comes from organizations outside of state government. Local and state philanthropic foundations are one common source for impetus and inspiration around the creation and development of career pathways.

EXAMPLE:

In Ohio, the vision for career pathways came from an outside “intermediary”—in this case, a foundation. In 2002, the **KnowledgeWorks Foundation** convened a group of “stakeholders” to identify ways to assist the more than one million low-wage working adults in Ohio to move up the economic ladder while also helping the state’s employers recruit and retain qualified workers. The organizations represented in the stakeholder group included community and technical colleges, adult career-technical schools, adult basic education providers, Ohio Board of Regents, Department of Education, Department of Job and Family Services, Governor’s Workforce Policy Board, local workforce and economic development entities and employers. In 2003, this 45 member group produced a Vision and Strategies document that called for improved alignment among the agencies and institutions responsible for adult workforce education in the state and between those entities and agencies responsible for human services, workforce and economic development.

In an accompanying Action Plan, the stakeholders proposed a two-pronged strategy for fostering alignment: one focused on practice at the local or regional level and the other designed to promote state policies conducive to

alignment. Since spring 2003, KnowledgeWorks and the stakeholders have successfully championed legislation to increase the transition of adults from the state’s adult career technical schools to the community and technical colleges. In spring 2006, they helped convince Ohio Governor Bob Taft to empanel a commission to recommend ways to improve the governance and funding of Ohio’s adult workforce education programs.

Encouraging and Supporting Regions to Build Career Pathways

Even with clear state-level vision and goals, operationalizing career pathways at the level of practice often requires guidance and support from the state. In some instances, local players are already collaborating well even without state encouragement. In other cases, incentives and guidance from the state might be crucial to changing the status quo. States can help catalyze the development of local career pathways partnerships by providing financial support for planning and piloting; offering technical assistance and opportunities for peer learning and support; and helping with stakeholder engagement and strategic communications.

FINANCIAL SUPPORT FOR PLANNING AND PILOTING

As is evident from the discussion in Section Two, building career pathways at the local level involves a great deal of planning, partnering and coordination. States can support these activities through grants to plan and pilot career pathways.

1.

Support for Pilots

States can provide seed funding to encourage local development of career pathways in line with the state vision. In most cases, with state resources at a premium, the pilot serves to test the concept, and more substantial investment—as well as the implementation of whatever lessons are learned—will follow an initial success.

EXAMPLES:

In September 2003, the **Kentucky Community and Technical College System (KCTCS)** issued a request for proposals (RFP) from KCTCS districts for grants of up to two years to “create regional partnerships to implement career pathways in their respective communities.” The RFP stipulated that projects should:

- Involve regional partnerships of community and technical colleges, adult education providers, employers, economic development, workforce investment boards, one-stop partners, human service agencies and other stakeholder groups.
- Focus on employment and educational advancement opportunities for low-income adults while also meeting employer needs.
- Build a career pathways system, focusing on high-demand, high-wage employment sectors, that incorporates a seamless structure of skills training, work experience and upgrade training.
- Build on existing state-supported initiatives such as WIA One-Stop Career Centers, the Kentucky Employability Certificate, Kentucky

Manufacturing Skills Standards, Kentucky Workforce Investment Network System (WINS) and the Kentucky Workforce Alliance.

- Leverage existing resources to fund program operation.
- Seek to bring about systemic change within and across institutions, not just implement demonstration projects that serve small numbers and disappear when dedicated funding ends.

KCTCS is funding the initiative through KY WINS, which draws from a workforce development trust fund set up when the system was established. The trust fund was originally established to support non-credit, short-term customized training, but the KCTCS leadership pushed to expand coverage to college-credit programs as well. This emphasis on supporting job-connected education and training, both non-credit and credit, makes KY WINS an ideal source of funding for career pathways.

In developing the RFP for the initiative, the KCTCS staff consulted with the staff of the **KnowledgeWorks Foundation**, which was planning to issue an RFP from teams to develop plans for piloting career pathways in specific industries or occupations of importance to local regions in Ohio. In October 2003, KCTCS and KnowledgeWorks cosponsored a career pathways planning conference in Cincinnati. The conference brought together teams from throughout both Kentucky and Ohio, along with state agency representatives, to develop plans for building career pathways programs in their respective regions.

Following the conference, all 16 KCTCS districts submitted proposals. KCTCS indicated that it would fund every proposal, assuming they

met the RFP guidelines. Over the next several months, KCTCS staff worked with each college to refine its plan. KCTCS has now funded projects at all 16 colleges. Twelve of the sixteen are focused on healthcare, three are creating pathways in manufacturing and one is targeting construction. Some colleges have since created additional pathways in other fields.

In Ohio, the KnowledgeWorks Foundation and the **Ohio Department of Job and Family Services** awarded \$30,000 planning grants in the spring of 2004 to 12 of the 26 regional partnerships that submitted proposals. The following winter, ten of the 12 teams submitted implementation plans. Of these ten, six were judged to be high quality by outside reviewers. KnowledgeWorks awarded three-year implementation grants of \$225,000 apiece to three colleges and the Governor's Workforce Policy Board provided funding for three others in healthcare.

The **California Community Colleges** originally intended its "Ladders to Opportunity" initiative to be funded through a new budget measure, but it became clear that, given the state's fiscal straits at the time (2001), new measures were not likely to be funded. So the system established the Career Ladders Project (CLP) to seek private philanthropic funding to move the Ladders of Opportunity initiative forward.¹² The CLP studied the practices of colleges at different stages of developing career ladder programs, identified policies that needed to be changed for the career ladder approach to be more widely practiced, made policy recommendations to the system office, and began to provide technical assistance to colleges building career pathways. The CLP also initiated pilots to demonstrate the career ladder approach. For example, with funding from the Walter S.

Johnson Foundation, the CLP developed the "Gateway Initiative" to link disadvantaged, low-skilled youth and adults to post-secondary education and career-path employment. Gateway pilot projects were established in six counties involving 12 community colleges, eight workforce boards and multiple social service agencies.

2.

Using Federal Funds to Support Planning and Piloting

State budgets are tight all over the country, and discretionary funding is hard to come by. Several states have made resourceful use of federal dollars to support their career pathways work. Workforce Investment Act (WIA) and Temporary Aid for Needy Families (TANF) dollars have been used to support pilots.

EXAMPLES:

For the past two years, **Oregon** has used Workforce Investment Act (WIA) Incentive Award funding to support the development of career pathways at Oregon's 17 community colleges. Each college has developed pathways in one or more transition area: high school to post-secondary, pre-college (Adult Basic Education, General Equivalency, English as a Second Language, etc) to college, or post-secondary entry for adults re-entering the workforce or incumbent workers. With support from the Governor's Employer Workforce Fund, one five-college collaborative developed 29 occupational "roadmaps" as tools for advisors, faculty and students. In addition, the five colleges organized an "Oregon Pathways Academy" in summer 2005, sponsored by the Oregon Department of Community Colleges. The Academy brought together teams,

comprised of staff and faculty from professional-technical programs and students services as well as representatives from partner workforce and social service agencies, from all 17 community colleges in the state. The intensive two-day program featured presentations by the five leadership colleges and national experts. Time was set aside for networking and planning within and across college teams. Each team developed a plan for building career pathways in its locality using a template designed by the five lead colleges.

The Governor's fund continues to support the efforts of the five-college collaborative and recently provided funding for an additional six colleges to participate. An "Oregon Pathways Academy II" is planned for 2007. Oregon was awarded WIA incentive funds for the 2007 fiscal year, which it will use to build career pathways systems and capacity. In addition, the state has dedicated some Perkins funds for career pathways efforts. Teams from six regions were recently awarded Perkins funding to develop tools for facilitating the transition from high school to college, including websites designed for high school students that map career pathways and dual enrollment opportunities in a broad range of career areas.

Arkansas is using TANF funds to support a Career Pathways Initiative at 11 of its 22 community and technical colleges. The Arkansas Department of Higher Education (ADHE) kicked off the initiative in April 2005, with a meeting that brought together presidents and other leaders from each of the public two-year colleges in the state. This was important for getting buy-in from the colleges for the initiative. A public information campaign was launched, and students were enrolled in August of 2005. The planning meetings organized by ADHE include teams from all 22 colleges in the state.

Even though the initial funding will go to 11 colleges, the ADHE wanted to involve all 22 because it is anticipated that all Arkansas public two-year institutions and university-affiliated technical institutes will benefit from new projects and programs supported by the Career Pathways Initiative.

OFFERING TECHNICAL ASSISTANCE AND OPPORTUNITIES FOR PEER LEARNING

The career pathways approach requires thinking in new ways about program design and delivery. Even with a solid orientation to the process and opportunity for planning at the outset, partners involved in building career pathways often need assistance as the work unfolds and new challenges arise.

3.

Coaching

Career pathways efforts can benefit from having a coach to provide guidance and perspective on the work. While virtually all projects profess a commitment to "learning" in the abstract, many sites have found value in having experts in the relevant policy fields on hand to help guide local actors by providing on-site technical assistance and serving as intermediaries between the local project and state officials.

EXAMPLE:

A coach is working with each of the regional partnerships planning and implementing career pathways as part of the Ohio initiative funded by the **KnowledgeWorks Foundation** and the state government. The coaches include consultants with expertise in career pathways, practitioners from colleges that have experience with pathways and, in one case, a former technical college president who works with the college's

team and leadership. KnowledgeWorks Foundation and the state's Governor's Workforce Policy Board jointly fund these coaches and convene all core team members twice a year—the team leaders meet even more frequently—to share experiences and discuss common challenges.

4.

Workshops

Sites establishing career pathways often experience similar challenges. State leaders can often help in overcoming these challenges by holding workshops that offer practical guidance on the issues involved.

EXAMPLE:

KCTCS has organized a series of workshops on issues identified by the local teams involved in Kentucky's career pathways initiative. Topics have included career pathways in healthcare and approaches to accelerating developmental education as part of career pathways. KCTCS staff members also hold frequent conference calls with project leaders from the various campuses. In addition KCTCS staffers have organized meetings with developmental education faculty and staff from every college in the system to explore how developmental education can more effectively prepare students to enter career pathways.

5.

Cross-Site Learning

Sites often find it very useful to share their challenges and learn from peers elsewhere in the state or the country. States can convene cross-site meetings and encourage electronic communication to provide opportunities for

cross-site sharing. States new to career pathways can jumpstart the learning process by inviting "peer experts" from states that have previously worked on career pathways to share their experiences, lend advice and bring new perspective to the issues.

EXAMPLE:

The state-level pathways steering committee in Oregon has been meeting since 2004. The committee includes both state and local members who report on progress, share lessons learned and continue planning. The state members use these meetings as an opportunity to examine implications for policy that emerge from the discussions among the local members. For example, in response to recommendations from the steering committee, the Oregon Community College system has established a program approval system that allows colleges to package credit-bearing college courses into smaller modules and credentials as building blocks to degrees. These discussions have also led to a proposal to extend need-based financial aid to students who attend part-time.

SUPPORTING STRATEGIC COMMUNICATIONS

Local career pathways initiatives can benefit from having a well-conceived plan for communications or public relations to assist with recruiting participants and employers to pathways programs, winning financial support from policymakers and private funders, and building support among the general public. State agencies can reinforce local efforts by helping to bring greater consistency of message as well as economies of scale to communications efforts.

EXAMPLE:

The Washington State Board for Community and Technical Colleges (SBCTC) understands that effective communications at both the state and local levels are critical to building support for the mission of community and technical colleges among policymakers and the public. Over the past two years, the SBCTC, in conjunction with presidents and public information officers from each of the colleges in the system, has developed and begun to implement a strategic communications plan to raise awareness of how community and technical colleges contribute to the economy and serve residents of the state. The SBCTC has tied the plan and its messages closely to its legislative agenda. For example, in an effort to seek increased funding for its new integrated basic education and skills training (I-BEST) programs, the SBCTC has sought to convey how upgrading the skills of the current workforce—including and especially adults stuck in low-wage jobs—can help the state achieve its economic goals. The SBCTC also used this more coordinated approach to communications in successfully advocating for financial aid for working adults who do not qualify for other sources of aid.

Breaking Down Silos and Aligning Policies to Support Local Cooperation

When state agencies break down silos and build cooperation among themselves, they facilitate partnerships among education, workforce, human services and economic development entities at the local and regional levels.

ALIGNING AGENCY PRIORITIES

Often agencies have no problem recognizing common problems, but developing mutually beneficial solutions or even finding the time to come together can be challenging. Career

pathways can serve as a framework for aligning priorities across agencies.

EXAMPLE:

The **California Community Colleges** incorporated key policy recommendations from the Career Ladders Project it has supported since 2001 into its new strategic plan, “Education and the Economy: Shaping California’s Future Today,” which it adopted in January 2006.¹³ That document includes a commitment to: “build on partnerships with workforce, social service and adult education systems to expand the reach, scope and funding of college-centered, industry-driven career pathways programs.”¹⁴

At the same time, the California Community College Chancellor Mark Drummond and agency Secretaries Alan Bersin (Education) and Victoria Bradshaw (Labor and Workforce Development Agency) have called for a new program to address issues facing low-skilled youth and adults disconnected from higher education, but who could help meet the state’s current workforce needs if given opportunities for education and training. The California Workforce Investment Board, which includes representatives from all three agencies, has proposed guiding principles for the program modeled in part on the Gateway bridge programs piloted through the system’s Career Ladders Project. Called “Career Advancement Academies,” these programs will be offered by community colleges in partnership with local workforce boards, regional occupational career centers, adult basic education programs and employers and foundation partners. In 2006–07, from three to five large-scale demonstrations will be launched using funds from Governor Schwarzenegger’s Career Technical Education Initiative, which is designed to encourage high schools and community colleges to work together to facil-

itate advancement by youth into post-secondary education and careers in well-paying, high-demand fields.

DEDICATING STAFF RESOURCES

As mentioned previously in this report, it is critical that pathways partners not underestimate the amount of coordination needed to establish career pathways. States have found that this works best when they assign staff responsibility for this coordinating role.

EXAMPLE:

The **Washington State Board for Community and Technical Colleges** (SBCTC) generally has enjoyed good working relationships with other state agencies involved in Washington's "WorkFirst" welfare-to-work program. Through its involvement in the Ford Foundation-funded Bridges to Opportunity initiative, the SBCTC has redoubled its efforts to break down silos at the state and local levels. Using money from the Ford grant, the SBCTC hired a staff person to further promote cooperation among the SBCTC and outside agencies and among colleges and their partners at the local level. This staff person has worked with other agencies to conduct the studies on expanding baccalaureate opportunities for community college students and evaluating the I-BEST integrated adult basic skills and workforce training pilots. She also led a legislative study of the potential for co-location of One-Stop career centers on community college campuses. Beyond that, she has helped to organize and coordinate the SBCTC's own efforts to increase opportunities for educational and economic advancement by students, particularly low-income adults.

THE ROLE OF THE LEGISLATURE

Whenever elected leadership changes hands, there is the possibility of a change in priorities and cessation of support for current programs. State legislatures can play an important role in sustaining career pathways efforts beyond a single political cycle by passing legislation that institutionalizes support for pathways.

EXAMPLE:

In 2005, **KnowledgeWorks Foundation** and the stakeholder group it has organized through the **Ohio Bridges to Opportunity Initiative** (OBOI) have helped persuade the state legislature to pass a measure that mandates articulation and transfer of credits among the adult career centers, the community and technical colleges and public four-year colleges and universities. The new law also requires the Ohio Board of Regents (which oversees public two- and four-year colleges) and Department of Education (which administers the adult career centers) to work more closely together to eliminate redundancies and roadblocks. In spring 2006, KnowledgeWorks and the OBOI stakeholders helped draft a recommendation to create a commission to explore a new coordinating structure for adult workforce education and training in Ohio. The governor has since issued an executive order empanelling a thirteen-member commission (with an employer as chair) that must submit its recommendations no later than November 1, 2006, before the fall election and the beginning of the biennial legislative session.

PARTICIPATING IN NATIONAL INITIATIVES

States can access guidance and support for establishing career pathways by joining the growing number of national pathways initiatives. National philanthropic foundations are the most common resource for both knowledge and

funding, but cross-state and federal partnerships have begun to emerge as well.

EXAMPLE:

Kentucky, through **Kentucky Community and Technical College System (KCTCS)**, is one of six states involved in the Ford Foundation-funded Bridges to Opportunity initiative, which seeks to promote state policies that enhance the capacity of community colleges to improve educational and economic opportunities and outcomes for low-income adults on a large scale. KCTCS is also participating in the Community Colleges' College and Career Transitions Initiative (CCTI), run by the League for Innovation in the Community College, which is seeking to increase the flow of youth from high school into college career programs. Participating in both initiatives has helped KCTCS build interest and momentum for career pathways development within the state. KCTCS is now exploring how to integrate its work on youth pathways through CCTI with its adult career pathways initiative developed through the Bridges initiative.

Funding Career Pathways

As suggested, states can help seed career pathways by providing funds to local partnerships for planning and coordination. States have drawn on a variety of sources for such purposes, including Workforce Investment Act incentive funds, TANF or Perkins monies, and their own appropriations.

Beyond the relatively small amounts of money needed for planning, partnership building, technical assistance and cross-site sharing, the ongoing operation of career pathways should be funded from existing funding streams. Special-purpose funding may be necessary for getting a career pathways

project started, but it will not sustain them.

INCENTIVES

States can create incentives for local service providers to use existing resources in ways that achieve better economic returns for their citizens, employers and communities. Incentives can include tax breaks for participating businesses, rewards for meeting performance standards, and penalties for failing to meet minimum performance thresholds, among others.

EXAMPLE:

It was mentioned above that the **Washington State Board for Community and Technical Colleges** had conducted research showing that too few adult basic education students make the transition to college-level occupational programs. Drawing on another research finding that adults best learn basic skills when they are taught in the context of training for employment, the SBCTC funded pilot projects at 10 colleges in spring 2004 to test the efficacy of the aforementioned "I-BEST" approach for integrated basic skills education and skills training. The approach pairs adult basic education and professional-technical instructors, who work together to integrate basic skills instruction with the teaching of occupational skills. In an October 2005 evaluation report on the pilots, which focused on English-as-Second-Language (ESL) students, the SBCTC reported that "I-BEST students were five times more likely to earn college credits on average and were 15 times more likely to complete workforce training than were traditional ESL students [at similar levels of literacy] during the same amount of time."¹⁵ The evaluation also revealed that "the two critical components identified in the cost structure of these programs were the presence

of two faculty members in the classroom and the cost of coordination.”

Based on these findings, the SBCTC staff convinced the board and the presidents of the colleges in the system to fund I-BEST programs at a rate of 1.75 FTE¹⁶ in order to cover the cost of joint development and teaching by two instructors (.75 FTE + .75 FTE) and the added cost of coordinating an integrated program (.25 FTE). To qualify for these funds, which are drawn from the state’s existing pool of resources from college’s FTE allocation, colleges will have to meet a strict set of program requirements and undergo a rigorous evaluation.

PLUGGING FUNDING GAPS

Of course, where gaps exist in services that existing funding sources do not cover, states need to weigh the costs and benefits of providing new monies. Again, the career pathways model provides a framework for identifying gaps and assessing the costs and economic benefits of addressing them.

EXAMPLE:

The **Washington State Board for Community and Technical Colleges** recognized that the current financial aid system is designed for “traditional” college students—that is, recent high school graduates who enroll full-time with the intention of earning a degree. Adult students, particularly those of low to moderate means, often do not qualify for financial aid because they enroll in school part-time or take non-credit courses.

During the 2004–05 session of the Washington legislature, the SBCTC worked with the Higher Education Coordinating Board to win approval for a measure that allows students who attend college less than half-time to qualify for state financial aid. The measure is

designed to benefit working students, particularly those who are low-income and cannot afford to attend college full-time. It will enable these students to pursue their education while they work and give them greater flexibility to enter and exit education and training as their circumstances permit. In 2005, the legislature made an initial allocation of \$500,000 to pilot the model. In the 2005–06 session, the legislature formally established these grants for part-time students as the Opportunity Grant Program and made a general fund appropriation of \$4 million to support them. The grants may be used for tuition, books, fees and other expenses associated with attending a workforce education program. The SBCTC staff plans to study how part-time students use financial aid, and whether and how students who receive aid are more successful than those who do not.

Helping to Track and Evaluate Career Pathway Outcomes

States can play a critical role in helping to track participants in career pathways across levels of education and into the labor market.

EXAMPLES:

As mentioned, the **Washington State Board for Community and Technical Colleges** has used its findings from tracking students’ educational pathways and labor market outcomes to inform the development of policies and programs that support student advancement to higher levels of education and better labor market outcomes.

The **Kentucky Community and Technical College System (KCTCS)** is using the data system it administers for all the colleges in the state to evaluate its career pathways initiative. Students who are participating in pathways programs will be tracked through the KCTCS system and into the labor market, using

Unemployment Insurance wage records for the latter. This will be the most extensive effort to evaluate career pathways to date, and we eagerly await its findings.

Both Kentucky and Washington State rely on the National Student Clearinghouse (NSC) to identify four-year colleges where their community and technical college students transfer. Neither state, however, has ready access to information about how successful community and technical college students are after they transfer to four-year institutions. Of all the states, only Florida can readily track students from the early grades through post-secondary. However, as indicated in Section Two, even states without statewide systems for tracking students across educational sectors can broker local or regional data sharing agreements to get at this information.

LESSONS LEARNED

A growing number of states and regions around the country are adopting the career pathways approach. Along the way, they have learned lessons that others can benefit from. In this chapter, we share some of these lessons, with examples from states and local partnerships at the forefront of the career pathways movement.

Build Relationships around a Shared Vision and Mutual Advantage

Where they are most successful, career pathways are built to achieve shared objectives. These might include a need among employers for workers qualified to fill particular sorts of positions, a desire of community groups to help local residents secure employment in jobs offering family-supporting wages, or an interest among schools and colleges to improve retention and graduation rates. For the various partners to become involved and stay engaged in building career pathways, each must see clear benefits arising from its involvement. Ideally, all partners should have opportunities to provide input at the outset, when the partnership is defining its vision and setting goals and performance benchmarks. This helps to build consensus and clarity around the vision and clarify roles for the work ahead. It is especially important to involve employers early in vision setting.

- **Rhodes State College** in Lima, Ohio is building career pathways in manufacturing. Among the reasons the college cites for its success to date is involving its partners early in the planning process—employers in particular. The college invited manufacturers in the region to participate in designing

the program; those companies are sufficiently pleased with their experience thus far that they have agreed to help fund the program.

- At **Elizabethtown Community and Technical College** in Kentucky, the college's president has made a concerted effort to involve the faculty in building career pathways and believes that the faculty now understands and supports the career pathways vision. "They see that this is about moving students up the ladder." The college's non-credit customized training division and credit academic programs and faculty now work more closely together. The involvement by credit faculty helps to ensure that degree programs are in sync with industry needs. The work with employers has expanded opportunities for the college's non-credit division to offer customized training for employers. The non-credit staff and credit faculty are now doing more "cross marketing" of one another's programs to employers involved in the pathways work.
- The **KnowledgeWorks Foundation** retained researchers at The Ohio State University to evaluate the Ohio career pathways initiative. Among their initial findings¹⁷ was that building

strong partnerships takes time and requires frequent and honest communication among the parties involved. For employers, the more pressing the problems they hope to address through the pathways project, the more involved they are likely to be.

Have Realistic Expectations

Often in pathways development, we see groups begin their efforts with energy and enthusiasm, only to lose momentum when the going gets tough. Partners should expect slow going at times, since several of the steps—creating joint marketing materials, developing and getting approval for new curricula, and aligning assessments and entry standards across programs—can be time-consuming, as the examples below illustrate.

- Working with a TANF grant from the State of

Arkansas, **Southeast Arkansas College** (SEARK) set out to structure a series of career pathways for the large TANF-eligible population within the college's six-county service area. Leaders at SEARK cite the need for strong partners and patience for a successful career pathways initiative. SEARK is beginning to contextualize developmental education courses so they serve as “bridges” to pathways programs. The process has been grueling at times, but with persistence, SEARK is beginning to realize its vision.

- The experience of the Kentucky Community and Technical College System (KCTCS) shows that regardless of how enthusiastic and committed partners are at the outset, career pathways cannot be built in a day. The process involves forging relationships that may not have existed before, thinking about

ACTUAL TIMELINE FOR LAUNCHING THE KCTCS CAREER PATHWAYS INITIATIVE

Sept. 2003 RFP released

Oct. 2003 Planning conference for regional teams

Nov. 2003 Follow-up meeting requested by colleges for clarification and sharing

Jan. 2004 Proposal deadline

Jan. – Nov. 2004 Further planning and refinement based on negotiations between colleges and system staff

Dec. 2004 Contracts signed with ten of 16 colleges; work just beginning at those ten

April 2005 Contracts signed with 15 of 16 colleges

June 2005 KCTCS proposes process for evaluating success and impact of career pathways programs

programs and services in a new way, and ultimately reallocating resources—money, people and facilities. The box shows the timeline for how the pathways planning process played out in Kentucky.

Obtain Buy-in from Top-Level Leadership and Assign Adequate Staff Capacity to Accomplish Pathway Goals

As with any multi-group collaborative, commitment from the top leaders in each organization is critical to success. College presidents, company CEOs, agency heads and other leaders can provide momentum at startup and help “grease the wheels” when progress slows. Pathways staff should make sure that those leaders buy into the pathways concept and keep them apprised of progress.

A related point is that organizations often will not make their involvement in pathways a priority unless an individual or division takes ownership. Pathways leaders should make sure that responsibility for pathways work is clearly assigned and that a staff person becomes the point of contact for their organization.

- Leaders at Corning Community College in Corning, NY stated that their pathways initiative was “catapulted” when the college president became involved. The president’s involvement signaled a level of commitment and dedication to following through that was critical to earning the trust of the other partners.
- The Ohio State University evaluation of the Ohio career pathways pilots for the KnowledgeWorks Foundation illustrated this lesson as well. Hawley and Sommers write: “Strong leadership can keep the project focused, bring partners together and broaden and

deepen their relationships, sustain energy and commitment, and win support of business and government. The strong projects had leaders who are decision-makers in their organizations, and had strong project coordinators.”¹⁸

Go for the “Low-Hanging Fruit” First

In other words, look for ways to achieve early success to bank credibility and build support for the tougher work later. Bring to the table the partners who are most willing and able to participate, work with employers who are most eager, and involve college faculty and staff who support the concept. If the concept succeeds with willing participants, then others are more likely to want to get involved.

- At a presentation at the 2005 annual conference of the National Council on Workforce Education on lessons learned from career pathways work in Oregon,¹⁹ the presenters noted the importance in Oregon of beginning with existing programs, services and partners and building on each college’s strengths. Also, several of the Oregon colleges that participated in the state’s first wave of career pathways development pursued healthcare pathways, where demand from employers was strong. Starting pathways development by addressing a clear need is a good way to prove the value of the model.

Track Participant Progress and Outcomes

Tracking participants as they move through pathways helps partners identify gaps in programs and services and reveals opportunities for improvement. Many groups struggle to do this because it involves data sharing among different organizations, but tracking student and

worker flows is critical both for identifying needed improvements and for establishing benchmarks with which to measure progress.

- The Kentucky Community and Technical College System (KCTCS) has implemented a system to track progress and outcomes of pathways participants.²⁰ In doing so, it is seeking both to measure the impact of the career pathways pilots at each of its colleges, and to model a process that colleges and the system can use to bring about data-driven improvements in programs and services.
- Data tracking and performance measurement should also take place at the local level. At the MET Center in St. Louis, staff members follow graduates after they are placed in jobs. Tracking is done “the old-fashioned way” by speaking directly to the graduates and to their employers to evaluate how qualified workers are for jobs in the biopharmaceutical industry after completing MET Center training.

Remember to Tap All Potential Participants

Many colleges recruit from adult basic education or English-as-a-second-language (ESL) programs for career pathways, but few are recruiting from developmental education programs. Developmental students are a far larger group on most community college campuses and represent a large potential pool of students and, ultimately, workers for local industry.

- As part of its career pathway initiative, the KCTCS convened developmental program faculty and administrators from throughout the system to explore the roles that developmental education can play in career pathways.

This group has generated ideas for ways developmental education can contribute to career pathways. These include creating orientation and student success course materials appropriate to particular pathways, or developing instructional materials contextualized to a given field. KCTCS recently issued an RFP to the colleges for “career pathways faculty support” grants that will enable faculty from developmental, general education and occupational programs to work together to find better ways to prepare students needing remediation for degree-credit programs leading to credentials and career-path jobs.

Make Career Pathways about Transforming Institutions, Not Just a Specific Program or Project

At times in career pathways development, groups become focused on creating a new program or changing a particular policy and lose sight of the bigger picture. But at its core, the career pathways process is not about developing discrete programs; it is about changing the way organizations and institutions organize themselves to support student and worker advancement. The most promising efforts focus on transforming institutions, leveraging partnerships, and bringing pilot efforts to scale, rather than on creating boutique programs. Career pathways succeed when partner organizations become more focused on the needs of their customers and leverage their individual strengths toward shared goals.

- **Southwestern Oregon Community College** has used the career pathways process to rethink numerous aspects of the college’s operations and policies, including financial aid and registration, to facilitate students’ access to and success in programs leading to careers in fields of importance to the local economy. In

this way, the college's efforts to build career pathways have transcended program development in a specific area, serving to transform the institution in ways that have helped it become more responsive and effective.

- Through their involvement with career pathways, Kentucky's community and technical colleges have come to recognize the need to integrate the work of their academic, workforce and remedial divisions. According to a KCTCS staff person, this is a painful-but-necessary process: "It is really forcing some folks together who have managed to avoid each other artfully." Career pathways is a way for these schools to join together their WIA One-Stops and adult education providers and their non-credit workforce training and academic programs in a concerted effort to connect participants to employers and jobs. According to another KCTCS staff person, the academic faculty and administrators at the colleges are excited about this initiative because "It is giving them an opportunity to do what we have been talking about for a long time, which is building steppingstones for students—connecting the dots in the curriculum."

ENDNOTES

¹ The knowledge economy is characterized by a labor market that favorably rewards workers for creativity, intellectual analysis and ability to use information as opposed to manual activity.

² For more information on bridge training programs, see Toni Henle, Davis Jenkins and Whitney Smith, *Bridges to Careers for Low-Skill Adults. A Program Development Guide* (Chicago, IL: Women Employed Institute: June 2005).

³ The report is available on our website, www.workforces-trategy.org.

⁴ By “region,” we mean an area defined by commuting patterns. Such an area may well cut across conventional political boundaries such as counties or workforce investment areas.

⁵ Shift-share analysis breaks down employment growth into three parts: growth due to overall national employment trends, growth due to industrial trends and regional industry mix, and growth due to regional comparative advantage.

⁶ A multiplier effect occurs when employment growth in one industry impacts growth in other industries. Some industries have larger multiplier effects than others, meaning they impact larger measures of growth in other industries than those with smaller multiplier effects.

⁷ For additional guidance on funding career pathways, please see Whitney Smith and Rachel Unruh, *Building Bridges: Funding Options for the Core Components of Bridge Programs*, Chicago: Women Employed, May 2004, and David Gruber, *Funding and Sustaining Career Pathways*, New York: Workforce Strategy Center. November 2004.

⁸ The information in this and the next paragraphs comes from a May 31, 2005, document from the Oregon Department of Community Colleges and Workforce Development titled “Oregon’s Pathways to Advancement: Pathways Foundation Message.”

⁹ California Community Colleges, *Ladders of Opportunity: A Board of Governors’ Initiative for Developing California’s New Workforce*, Sacramento, California, July 26, 2001.

¹⁰ David Prince and Davis Jenkins, *Building Pathways to Success for low-skills Adult Students: Lessons for Community College Policy and Practice from a Statewide Longitudinal Tracking Study*, New York: Community College Research Center, Teachers College, Columbia University, April 2005.

¹¹ *Baccalaureate Enrollment Growth Needed to Meet Education Needs of Technical Associate Graduates*, Olympia, WA: Washington State Board for Community and Technical Colleges, April 2005.

¹² The Career Ladders Project operates under the fiscal umbrella of the Foundation for California Community Colleges.

¹³ California Community Colleges System Strategic Plan, *Education and the Economy: Shaping California’s Future Today*, January 17, 2006.

¹⁴ *Ibid.*, p. 47.

¹⁵ *I-Best: A Program Integrating Adult Basic Education and Workforce Training*, Olympia, WA: Washington State Board for Community and Technical Colleges, October 2005.

¹⁶ 1.75 FTE (“full-time equivalent”) means that I-BEST programs are funded at a rate of 1.75 times the rate of a full-time enrollment in a regular course.

¹⁷ Josh Hawley and Dixie Sommers, *Ohio Bridges to Opportunity Initiative Career Pathways Year One Evaluation Report*, Unpublished report to the KnowledgeWorks Foundation, August 2005.

¹⁸ *Ibid.*, p. 5.

¹⁹ The information in this and the following paragraphs is taken from a PowerPoint presentation titled “Oregon’s Pathways to Advancement: Building Capacity Statewide across 17 Community Colleges,” which was presented at the National Council for Workforce Education Conference in San Antonio, Texas, on October 24, 2005, by Mimi Maduro of Portland Community College, Ann Malosh of Linn-Benton Community College and Eileen Casey White of Chemeketa Community College.

²⁰ See Section Two and Section Three for more on this point.

APPENDIX A: AGREEMENT RELATING TO THE NEW YORK INFORMATION TECHNOLOGY CAREER LADDERS CONSORTIUM

This Agreement ("Agreement") is entered into by and between _____ and _____ as of this ____ day of _____, 2003.

PREAMBLE

[This section sets the context for the memorandum. It may include a series of clauses which describe the purpose of the agreement, describes roles of other partners not a party to this particular agreement, and the mission of the collaboration.]

ARTICLE I. DEFINITIONS

[Definitions of common terms. Include items such as the meaning of completion, eligible participant, enrolled participants, funding source, partner organization, payment date, etc.]

ARTICLE I. SCOPE OF SERVICES

2.01 General

Program operations are shared among X# of partners: _____ is lead management agency for the Program; _____ shall assist with management and oversight; the CBOs are responsible for intake and assessment of participants; the named colleges and educational institutions are primarily responsible for delivery of training; and the named industry organizations are primarily responsible for placing Enrolled Participants in jobs.

A combination of foundation support and the Workforce Investment Act are funding sources for this program. Partners will be paid on a performance basis, with unit costs allotted to individual performance measures. Partners will also receive a percentage of non-performance funds.

2.02 Responsibilities of Organization A

The intermediary organization shall perform all activities necessary for the proper completion of its responsibilities under this Agreement. Such responsibilities shall include but are not limited to:

- A. Performing overall management and oversight functions for the project
- B. Coordinating with the Fund or its duly authorized designee
- C. Coordinating receipt and distribution of funding
- D. Ensuring the timely submission of any required invoices or other documents as appropriately required
- E. Distributing payments to Partner Organization from the Fund, Workforce Investment Act Individual Training Account, and other local, state, or Federal funding sources

2.03 Responsibilities of Organization B

The contractor shall perform all activities necessary for the proper completion of its responsibilities under this Agreement. Such responsibilities shall include but are not limited to:

- A. Coordinating the activities of Partner Organizations
- B. Performing job search networking functions and provide certain job referral services in conjunction with the industry organization partners
- C. Providing technical assistance to program Partner Organizations in development and implementation of the Program
- D. Directing marketing efforts to advertise the Program through media and other outlets

ARTICLE III. TERM AND PAYMENT

[This article includes the term of the agreement, the payment schedule, the amount of payment and auditing requirements]

ARTICLE IV. RECORDS

[This article describes the record keeping and data management responsibilities of the intermediary partner and of all parties to the agreement.]

ARTICLE V. CONFIDENTIALITY

[This article describes any confidentiality parameters on information.]

ARTICLE VI. REPRESENTATIONS AND WARRANTIES

[This article clarifies legal statuses of organization, enforceability of the agreement, and thresholds for legal action.]

ARTICLE VII. TERMINATION

[This articles clarifies terms under which the agreement can be terminated]

ARTICLE VIII. MISCELLANEOUS

[This articles includes topics regarding the choice of law (i.e., which state will govern), jurisdiction, dispute resolution, how to handle amendments, etc.]

The parties hereby enter into this Agreement as of the date first written above:

Name of organization

By: _____

Name:

Title:

Name of organization

By: _____

Name:

Title:

