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## Evidence-Based Career Pathways (EBCP)

Authors: Bill Guest, James Guest Ph.D., and Ryan Gimarc

Technical Guidance and Editing: John Cleveland and Jim Sharf Ph.D.

This research brief introduces evidence-based career pathways (EBCP). The authors reviewed thousands of pages of policy briefs and research reports on sector initiatives and career pathways. We translated leading practices that were written overwhelmingly as national and state policy advice into practical advice for workforce practitioners. We added an emphasis on the use of measures of job-related competencies to improve the efficacy of career pathways. Our model is designed to provide a framework and step-by-step guidance for workforce professionals as they seek to build career pathways as a core element of regional sector initiatives, so they can build clear and effective pathways to good jobs for job seekers.

This research brief is one in a series to support regional implementations of **Talent Supply Chain Management (TSCM)** published by Metrics Reporting, Inc. (MRI). The first page of each brief includes a summary of the topic along with publication date, title, authors, and suggested citation. The last page of each brief is an appendix that provides a one-page overview of the essential elements of TSCM. Pages two through eleven are the body of the brief. Each brief provides a pragmatic summary of one important element of TSCM. In addition to the research briefs we also publish three guidebooks that are available at Amazon.com.

- The **Stakeholder Guidebook** provides step-by-step guidance for creating local and regional initiatives around demand-driven, evidence-based career pathways.
- The **Career Navigation System Guidebook** provides step-by-step guidance for practitioners that defines and specifies components of demand-driven, evidence-based career pathways including the 7-step career pathway model, coaching, and profiles.
- The **Talent Excellence System Guidebook** provides an introduction to Talxcellenz® processes and tools for job analysis and validation studies to support robust demand-driven, evidence-based career pathways.

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## Evidence-Based Career Pathways (EBCP)

### Introduction

In regions across the country, career pathways are emerging as a leading workforce strategy. A career pathway is an integrated collection of programs and services intended to develop individuals' core academic, technical, and employability skills and to provide them with continuous education, training, and placement in high-demand, high-opportunity jobs. Three departments of the federal government signed a joint letter on career pathways in 2012 and over a dozen departments signed and reissued the joint letter in 2016. This letter is aligned with the Workforce Investment and Opportunity Act (WIOA) legislation that guides the work of the approximately 600 independent workforce agencies that make up the U.S. public system.

*Evidence-based* career pathways (EBCPs) augment the concept of career pathways by including information derived from rigorous analysis of defined job families and validated foundational and occupational job-related competencies. We can describe the effort to align a region's high demand jobs with the supply of potentially employable individuals as Talent Supply Chain Management (TCSM). While the evidence-based selection process (EBSP) improves the effectiveness of an employer's selection process, evidence-based career pathways (EBCP) improve the talent supply chain. EBCPs improve the quality and availability of talent.

There are several advantages of EBCPs:

- **Employers:** EBCPs provide business leaders an abundant supply of high-quality applicants that are "pulled" through the system by employers rather than "pushed" through the system by educators. Employers clearly define job requirements and openly communicate specific job qualifications and hiring forecasts so that individuals and educators can work toward clearly defined targets.
- **Individuals:** EBCPs enable individuals to identify their optimal next job via career coaching that uses evidence of skills and relevant information on jobs and educational options. Improved career navigation leads in turn to improved economic mobility. People experience the dignity of work and become highly engaged employees.
- **Educators:** EBCPs draw on jobs data from employers to aid students and staff that need that information to plan individualized career paths that are optimal for each one. Students learn about self, career options, labor market information, specific employer requirements, and plan a path to a series of good jobs. Students gain an understanding of the relevance of education to support their career goals and they become more focused and more engaged.
- **Regions:** Regions benefit from EBCPs when people take jobs in which they are highly engaged, they perform well, and they earn good rewards – when more people get into the right "seats" where they can thrive.

## National Best Practices

Our career pathways work is based on a thorough review of research reports, policy recommendations, and case studies from leading practitioners and change agents in the field. Here are some of the best practices we've gathered to guide this work.

- **Extensive use of O\*NET Data:** Our work builds upon publicly available O\*NET frameworks and avoids proprietary frameworks to the greatest extent possible. Common starting points and processes for using this data removes barriers to adoption for others.
- **Collective Impact:** Collective Impact is a framework for social change that we have used to develop regional sector initiatives focused on career pathways. The framework requires that all regional stakeholders define a common agenda, define shared measures of success, identify mutually reinforcing activities, agree on a plan for continuous communication, and choose a backbone organization to drive the work.
- **Competency Model:** Competencies provide a framework to define job requirements and evaluate job readiness of candidates. Our competency model is based on the publicly available data from the O\*NET and facilitates cross-partner cooperation and replication.
- **Demand-Driven Career Pathways:** The demand-driven career pathways system that is the goal of sector initiatives has a dual customer focus: employers and job seekers. Employers need a supply of high-quality talent, and individuals need good jobs with opportunities for advancement.
- **Joint Letter on Career Pathways:** In 2016, more than a dozen federal departments (DOL, DOE, HHS, etc.) signed a letter to promote the use of career pathway approaches as a promising strategy to help adults acquire marketable skills and industry-recognized credentials.
- **Workforce Innovation and Opportunity Act (WIOA):** WIOA was signed into law, replacing the Workforce Investment Act, on July 22, 2012 with overwhelming bipartisan support.

This MRI brief describes the stages of an evidence-based career pathway from the point-of-view of the participant experience: “What do I need to do to find and secure not just any job, but one where I will excel and find opportunities for development and advancement?” From the participant’s standpoint, the purpose of evidence-based career pathways is to pursue a good job that is a good fit while obtaining the relevant education and training and the support services that he or she needs. The steps described here can be repeated at multiple points in one’s career.

## 7-Step Career Pathways Model

MRI has developed a 7-Step Career Pathway Model to describe the participant experience as they move along a career pathway. There are several career pathway system models produced by workforce research organizations, and many of them are very good. Ours takes a workforce focus, beginning where a person is and ending in a good job. The process can be repeated in the course of a career, but we are generally focused on getting people to their first or next job. An illustration of the model is provided below:



Figure 1: The 7-Step Career Pathways Model

This 7-Step model is intuitive and recognizable to workforce professionals — we are not re-inventing the wheel. The model is intended in part to help practitioners from various organizations understand how their work ties into other workforce initiatives and projects. This is crucial to forming a well-functioning sector strategy and seamless pathways for individual job-seekers.

MRI has implemented innovative approaches in steps 2 and 6: evidence-based career coaching for individual job seekers (via community partners such as Goodwill or regional job centers) and career profiles (used as part of the selection process by employers). In each case, evidence-based processes are being introduced to align education and training with competencies shown to be related to job performance.

### Overview of the 7-Step Career Pathway Model

**1. Intake:** Step one is a coordinated regional intake process. The intake process will generally require the program participant to fill out a legal release and a form that collects demographic information and other information that will help workforce professionals determine the services that should be offered to the participant. Legal releases are generally required so workforce organizations can share information with other organizations in the network. The general intake form is designed to collect information to determine the participants eligibility for various workforce programs and public support

programs. At the completion of step one the participant is considered a registered participant in the career pathway initiative.

**2. Coaching:** Step two is evidence-based career coaching. Evidence-based coaching leverages quantitative applicant data in order to inform and support participants as they make career choices and development decisions. Evidence-based coaching guides participants to make informed decisions about “the best next step” in their careers. The process has four core steps and a preparation step to get ready for the self-awareness step:

Career Coaching			
Step 1	Step 2	Step 3	Step 4
Self-Awareness	Option Exploration	Decision Making	Action Plans

Figure 2: The 4-Step Career Coaching Model

- Coaching Step P – **Preparation:** Participants take assessments (cognitive, behavioral, and career interests), fill out the coaching readiness questionnaire, draft the work/education history, and review the coaching expectations. The information is shared with the career coach prior to step 1.
- Coaching Step 1 – **Self Awareness:** Participants interpret their assessment reports with the support of the coach and discuss their holistic understanding of the assessments. The three dimensions of cognitive skills, behavioral skills, and career interests provide an evidence-based foundation for accurate self-awareness. The coach also reviews the work/education history and assigns the participant to draft a résumé or improve their résumé if available. The coach reviews the coaching readiness questionnaire and obtains a commitment to the coaching process, including preparation for each session. The outcome of this step is that the participant has an evidence-based self-understanding based on assessments and their work and education history.
- Coaching Step 2 – **Career Exploration:** Participants summarize their strengths and growth opportunities based on information from the assessments, review the job families and jobs within families, and explore their top three jobs. The exploration starts with comparing O\*NET information about the jobs and includes job shadowing individuals currently working the jobs of interest to the participant. The outcome of this step is a good understanding of the top three options for the optimal next job.
- Coaching Step 3 – **Decision Making:** Participants evaluate the top three jobs considering the information from career exploration, supply-demand information for the local jobs market, and information about local educational programs related to the top three jobs with considerations of the participant’s life circumstances. The participant considers all this information in balance to select a target job for the next step in their career. The outcome of this step is a well-informed decision for the participant’s next job.

- Coaching Step 4 – **Action Planning:** Participants develop an action plan based on the above decision. The action plan documents the three jobs in the participant’s individualized career pathway. The plan details the education and credentials associated with each career step and details the supports that will be needed. The outcome of this step is a documented career pathway action plan. See Figure 3 for an illustration of the Career Pathway MAP form.



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## Career Pathway MAP: My Action Plan

**JOB 3**

Job Title

Name:

Date:

**JOB 2**

Job Title

**JOB 1**

Job Title

Education & Training	Credentials
	➔
	➔
	➔
	➔

Education & Training	Credentials
	➔
	➔
	➔
	➔

Education & Training	Credentials
	➔
	➔
	➔
	➔

Support Needed	
___ Trans.	___ Tutoring
___ Childcare	___ Mentorship
___ Financial Aid	___ Elder Care
Other _____	
_____	

Support Needed	
___ Trans.	___ Tutoring
___ Childcare	___ Mentorship
___ Financial Aid	___ Elder Care
Other _____	
_____	

Support Needed	
___ Trans.	___ Tutoring
___ Childcare	___ Mentorship
___ Financial Aid	___ Elder Care
Other _____	
_____	

Figure 3: The Career Pathway Action Plan

Not all participants will move directly into an education and training program. Some participants will discover that they have the skills needed for their next job and they will begin a job search. Some participants may discover that their current job is a good fit and they may begin the work to master all aspects of their current role. The key outcome is that the participant makes a well-informed decision on the next step that is best for them.

<b>Career Coaching</b>
<p><b>What distinguishes “evidence-based” career coaching from career coaching?</b></p> <ul style="list-style-type: none"><li><input type="checkbox"/> Self-Awareness — Assessment of Career Interests</li><li><input type="checkbox"/> Self-Awareness — Assessment of Cognitive Abilities</li><li><input type="checkbox"/> Self-Awareness — Assessment of Behavioral Competencies</li><li><input type="checkbox"/> Option Exploration — Use of O*NET Data</li><li><input type="checkbox"/> Option Exploration — Job Exploration Guided by Exploration Questions</li><li><input type="checkbox"/> Option Exploration — Comparison of interests, skills, and abilities to occupations</li><li><input type="checkbox"/> Decision Making — Use of Labor Market Information</li><li><input type="checkbox"/> Decision Making — Use of information on available education and training institutions</li><li><input type="checkbox"/> Decision Making — Comparison of resources and barriers to options</li><li><input type="checkbox"/> Action Plans My Action Plan (MAP) aligned with above evidence-based decisions</li></ul>

Figure 4: The Distinguishing Characteristics of Evidence-Based Career Coaching

## Coaching Resources

The seven-step career pathway model and four-step career coaching process have been incorporated into the Skills First software platform offered by Think Optimal. More information is available at: [www.skillsfirst.com](http://www.skillsfirst.com)

Educational Testing Service (ETS) offers three assessments that support the evidence-based career coaching process:

- WorkFORCE Assessment for Cognitive Ability to measure cognitive skills.
- WorkFORCE Assessment for Career Development to measure behavioral skills.
- WorkFORCE Assessment for Career Interest to measure career interests.

More information on ETS assessments is available here: [www.ets.org/workforce](http://www.ets.org/workforce)

- 3. Support:** Step 3 includes two components: braided funding for financial support and coordinated wrap-around services. Braided funding is a term that describes the activities related to evaluating the participant’s qualifications for grants, state, and federal funding streams and weaving together an optimal package to support the participant’s progress on their career path. This work is generally completed by a workforce professional that is familiar with all the potential funding sources in the region. Wrap-around services is a term that describes the activities related to evaluating the participant’s qualifications for various public supports for childcare, eldercare, transportation, nutrition assistance, and any other supports that are available in the region. This activity may be supported by a department of human services professionals or someone from a community-based organization that is familiar with the full spectrum of potential supports in the region. The outcome of this step is a comprehensive support plan for the participant to enable them to move forward on their career pathway.
- 4. Learning:** Step 4 includes education, training and work-based learning. Steps four and five are closely linked. Generally, participants will determine the credentials most valuable to employers during career coaching and career planning and this selection will inform their choice of education and training providers and programs. Step 4 is the implementation of the education and training portion of the career pathway action plan. The participant may enter a program at an educational institution or they may enter training or work-based learning provided by an employer. The outcome of this step is the completion of the education and training program.
- 5. Credentials:** Step 5 is about high-quality credentials which includes certificates, degrees, certifications, and licenses. Depending on the institution and the program the participant may need to register for assessments to earn an occupational certification or license. The specific credentials will be driven by employer requirements in the region. The outcome of this step is the participant has earned the appropriate credentials to be considered a highly qualified applicant by the employers in the region.
- 6. Profiles:** Step 6 is about constructing an employer-defined, evidence-based career profile. The career profile is a comprehensive portfolio that describes the qualifications of the participant in terms of skills, competencies, and credentials. An evidence-based career profile contains specific information that employers consider valid evidence of candidate qualifications. If a participant wants to apply for jobs at multiple employers, they will need to research each of the employers’ requirements and build a comprehensive profile with all the required elements, then share appropriate subsets of the profile with each employer based on that employer’s instructions. The outcome of this step is a customized evidence-based career profile for each employer that is of interest to the participant.



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## Career Profile Submission Form

Name: \_\_\_\_\_

Email: \_\_\_\_\_

Phone: \_\_\_\_\_

Community Partner: \_\_\_\_\_

Name: \_\_\_\_\_

Email: \_\_\_\_\_

Phone: \_\_\_\_\_

**#1** Resume & Cover Letter  
(Submit as attachment)

**#3** Career Coaching & Pathway Development  
(Submit as attachment)

**#5** Release Form  
(Submit as attachment)

**#7** Computer Proficiency  
(As defined by specific job)

YES  NO

**#2** Reference Check Preparation  
(Submit as attachment)

**#4** Structured Interview Practice completed

YES  NO

**#6** Background Check  
(As defined by specific job)

YES  NO

**#8** Assessment  
(Include scores)

\_\_\_\_\_  
 Prose    Doc    Quant

Figure 5: Illustration of an Evidence-Based Career Profile.

**7. Placement:** Step 7 is about referral and placement. This step is primarily about work internal to employers. The backbone organization will have a referral process that may include checking the career portfolios prior to referring candidates to employers. Large employers may have a dedicated person assigned to work with the career pathways initiative. They will coordinate referrals, applications, and interviews for participants. The participant will need to respond in a timely manner to requests from the employer as the talent acquisition professionals evaluate the candidate and arrange interviews with hiring managers. The outcome of this step is a job with an employer of choice.

### The 7-Step Career Pathway Model: Participant Experience, Key Actions, and Outcomes

Step	Sub-Steps	Key Actions	Key Outcomes
0	<b>Promotion</b>	Marketing and communication activities to promote the program	Colleagues and community members are aware of the opportunity
1	<b>Intake</b>	Fill out registration information and legal release	Registration in the career pathways initiative
2	<b>Career Coaching Preparation</b>	Take assessments, fill out the coaching readiness questionnaire, draft work/education history, and discuss coaching expectations	Assessment reports (interests, job fit and cognitive), readiness questionnaire, work/education history, and expectations checklist
	<b>Career Coaching Self-Awareness</b>	Interpretation of assessments (interests, job fit, and cognitive) and discuss for a holistic understanding	Evidence-based self-understanding based on assessments and history
	<b>Career Coaching Option Exploration</b>	Summarize strengths and growth opportunities (from assessments, foundational skills, transferable skills), review job families and jobs, explore top 3 jobs	Determined the three best-fit job options based on comparison of assessment results, strengths, growth opportunities, O*NET data, and exploration of top jobs
	<b>Career Coaching Decision Making</b>	Evaluate top jobs, review labor market information (LMI), and review education/training options	Determined the best job opportunity based on LMI and education options
	<b>Career Coaching Action Planning</b>	Develop a plan for a personal three-step career pathway detailing jobs 1, 2, and 3; and update resume'	Documented the three-step career plan and completed resume'
3	<b>Support Braided Funding</b>	Evaluation of financial support options based on personal circumstances	Documented financial plan including support from various sources
	<b>Support Wrap-Around Services</b>	Evaluation of needs, options, and qualifications for services	Documented support plan for appropriate wrap-around services
4	<b>Learning</b>	Enroll, attend, and complete the selected program	Completed the targeted education and training program
5	<b>Credentials</b>	Register and meet requirements for selected credentials	Obtained targeted credentials
6	<b>Profile</b>	Assemble a comprehensive profile and customized profiles for targeted employers	Evidence-based profiles for targeted employers
7	<b>Placement</b>	Search, apply, and interview of jobs	Obtained a good job in the targeted occupation
8	<b>Retention</b>	Provide appropriate supports throughout first year of employment	Improved first-year retention
9	<b>Tracking</b>	Track progress beyond first year to inform program improvement and support validation studies	Obtain good longitudinal data

Figure 6: Summary of Actions and Outcomes for the Talxcellenz® 7-Step Career Pathway Model in the SkillsFirst.com Platform

## Pre-Work and Follow-Up Steps

Beyond the 7 core steps that define the model, some pre-work (Step 0) and follow-up steps (Steps 8 and 9) can be considered as well. These steps are focused on the career pathway program in general rather than on individual participants.

- 0. Promotion:** Regions and employers will need to promote the career pathways program to create awareness. Marketing and communication strategies from a wide variety of community partners should be employed to spread awareness of opportunities to potential participants.
- 8. Retention:** Wrap-around supports from step 3 may continue through the first year of employment if needed. Continuation of support has the potential to improve first-year retention. The outcome of this step is data collection and determination of the best practices that lead to improved first-year retention.
- 9. Tracking:** Progress of participants within an organization beyond the first year should also be tracked to inform program improvement and support validation studies. The outcome of this step is the implementation of program improvements and the collection of high-quality validation data.

## Examples from the Field

The Metrics Reporting team has been particularly active in Grand Rapids, Michigan and Boise, Idaho recently. These two regions are the Beta test sites for the Skills First platform and are advancing many leading practices.

## Conclusion

Regional employers and community partners can align around this model and then target various steps for improvement over time. The model and associated best practices are generalizable across sectors. MRI has used the model for projects in the healthcare, manufacturing, and retail sectors.

Specific initiatives are often focused on one of many different populations of participants, but a truly regional approach to TSCM should account for participants as diverse as high school students looking to support themselves while they get through college, underserved populations that cannot obtain needed education and training without significant aid and support services, and incumbent employees simply seeking a clearer view of possible next steps in their careers. A regional approach to talent supply chain management will organize career pathways that draw upon the full spectrum of talent in the region as well as help individuals find their best next job.

## Appendix

**Talent Supply Chain Management (TSCM)** is a holistic set of solutions that enables employers and regions to build reliable pipelines of high-quality talent to meet their needs. The mission of Metrics Reporting, Inc. (MRI) is to design and implement the best TSCM systems in the world. MRI designs and implements demand-driven, evidence-based career pathways that meet the needs of regional employers and provide a clear path for individuals to prepare for and secure good jobs. There are three essential components of TSCM:

- 1. Evidence-Based Selection Process (EBSP)** is a decision-making model that elevates reliable evidence of applicant characteristics that are measurably related to job performance and reduces the use of elements that are not valid predictors of performance.
  - Cognitive measures that indicate critical thinking and problem-solving skills
  - Personality measures that indicate workplace behavioral skills
  - Measures of previous workplace behaviors via structured interviews and references
  - Continuous improvement based on talent analytics
- 2. Evidence-Based Career Pathways (EBCP)** meet the talent needs of employers and provide clear pathways for individuals to develop the skills to get and keep good jobs.
  - Seven-step career pathway model to support career navigation
  - Four-step evidence-based career coaching to define and document career plans
  - Use career profiles including evidence of skills aligned with employer requirements indicating that an individual is a highly qualified applicant
- 3. Support Activities: Sectors, Jobs, Job Families, Job Analysis, and Validation Studies**  
Employers need to be organized into sector-based career councils, and job information needs to be gathered, analyzed, and published.
  - Regional careers councils are organized for each industry sector to prioritize needs
  - Regional competency models create a common language around skills
  - Careers councils organize and confirm supply-demand data
  - Jobs are aligned with SOC codes and O\*NET codes to leverage occupational information
  - Jobs are grouped into job families with common competency requirements
  - Consortia-style job analysis engages subject matter experts (SMEs) from employers
  - Job information is published with foundational competencies, occupational competencies, tools and technologies lists, and credentials requirements
  - Validation studies confirm that hiring requirements are related to job performance

**Bill Guest**

President and Chief Solutions Architect  
616.430.0828  
bill.guest@metricsreporting.com