



Career Pathways Design Study

Findings in Brief

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The rapid rise of career pathways strategies, including an emphasis on them in the Workforce Innovation and Opportunity Act (WIOA), creates a need for more evidence on this approach. Although substantial career pathways research is in progress, more research is needed to enhance the field's knowledge about career pathways strategies, how best to configure them, and their long-term effects.

About the Study

To inform future research on career pathways approaches, the U.S. Department of Labor's (DOL) Chief Evaluation Office contracted with Abt Associates to understand the state of the field and develop evaluation design options. Abt conducted knowledge development by scanning career pathways studies and initiatives implemented as of February 2017 and consulting with 44 experts, then created a menu of evaluation design options to answer priority research questions. This brief gives a short overview of the project's four reports:

- The ***Career Pathways Research and Evaluation Synthesis*** examined 52 studies of career pathways approaches, and an accompanying matrix describes major career pathways research and evaluation studies;
- The ***Career Pathways Implementation Synthesis*** reviewed 128 existing career pathways initiatives, and an accompanying matrix describes major initiatives (whether or not they included an evaluation);
- The ***Career Pathways in Early Care and Education*** (ECE) report examined the potential for career pathways approaches in early care and education; and
- The ***Evaluation Design Options Report*** explored various *research design options* for evaluating career pathways approaches.

Highlights

- Our review of **52 studies** found limited published research on more fully developed career pathways initiatives; considerably more will be learned from ongoing studies and practice in coming years
- Among **12 impact studies** reviewed, most found positive effects on education outcomes and positive or mixed effects on earnings, within generally short- or medium-term follow up periods
- Our scan of **128 implemented initiatives** revealed a stronger focus on career advancement out in the field – particularly in healthcare, manufacturing, information technology and business – than is captured in research findings to date
- **Program-level** career pathways initiatives appear much more common than **system-level** ones
- Few comprehensive career pathways approaches exist in **early care and education**; rather, we found other promising practices aimed at addressing barriers specific to ECE worker advancement
- Questions of interest to the field not fully addressed by existing studies could be explored with a range of evaluation designs and data; we describe a **menu of possible evaluation options**

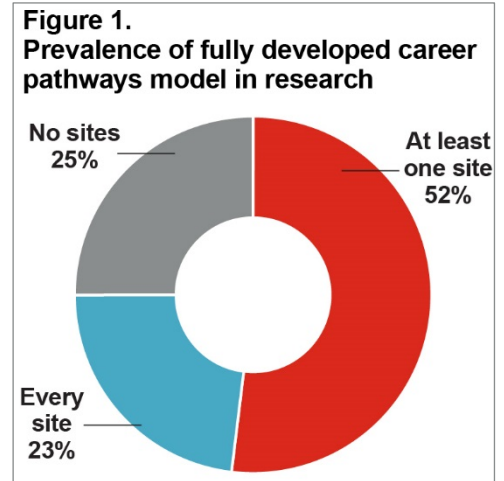
Study Background

WIOA requires DOL to “conduct a multistate study to develop, implement, and build upon career advancement models and practices for low-wage healthcare providers or providers of early education and child care.” In response, DOL's Chief Evaluation Office contracted with Abt Associates to conduct the Career Pathways Design Study to develop evaluation design options that could address critical gaps in knowledge related to the approach, implementation, and success of career pathways strategies generally, and in early care and education specifically, given the scarcity of research on it relative to healthcare.

Findings from the Knowledge Development Phase

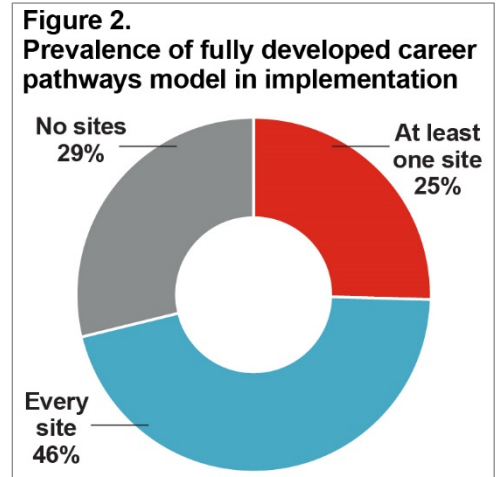
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- The *Research and Evaluation Synthesis* identified 52 studies of career pathways initiatives and related efforts, such as sectoral training and integrated education and training.
- About three-quarters of studies (39 of 52) focused on career advancement, with at least some sites offering or actively connecting to multiple steps of training, our proxy for more fully developed career pathways strategies.
- However, in just 12 of these 39 studies were *all* of the sites in a study implementing a more fully developed model. (Figure 1)
- Only about one-third of the reviewed studies included research questions that either specifically mentioned career pathways or included questions about an intervention that was explicitly described as a career pathways approach.



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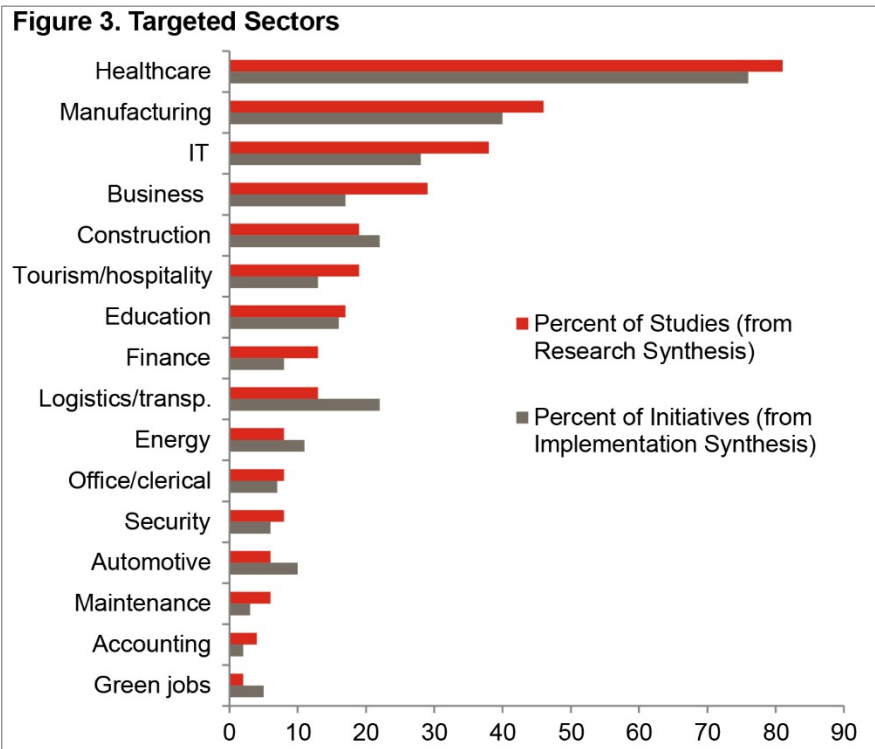
- The *Implementation Synthesis* looked at 128 career pathways initiatives regardless of whether they were the subject of research or not.
- Almost half of these initiatives (54 of 118) consisted of efforts in which *every site* was implementing a more fully developed career pathways model. (Figure 2)
- This suggests a greater focus on career pathways strategies focused on advancement out in the field than is captured in career pathways research at this time.



Career pathways initiatives more commonly appear at the program level than the system level and frequently target the healthcare sector; a typical participant is a low-income woman in her late 20s or early 30s who has completed high school.

- Among the 52 research studies reviewed, 51 of them looked at program-level initiatives. Although 20 examined system-level efforts, the research on most of these was in conjunction with program-level interventions. These numbers may understate the reach of system-level efforts, however, because they typically have a broader geographic scope than programs.
- Among the implemented career pathways initiatives we scanned, about one-fifth (23 of 128) of initiatives were solely system-level efforts, suggesting that the field may be focusing more on system-level strategies than is reflected in the research.

- Career pathways initiatives most commonly target the healthcare sector, along with manufacturing, information technology, and business industries and occupations (Figure 3).



- Career pathways programs most commonly targeted low-income individuals; typical participants were high school graduates in their late 20s or 30s and more likely to be female than male.

- Few studies included substantial percentages of youth or people of Hispanic descent.

- Individuals with employment barriers -- such as no high school diploma, very low skills, limited English proficiency, criminal records, or disabilities – were similarly unlikely to be represented in the career pathways research we reviewed.

Of the 12 impact studies among the 52 reviewed, most found positive effects on education outcomes and positive or mixed effects on earnings, within generally short- or medium-term follow up periods.

- Findings had been published for four quasi-experimental and eight experimental evaluations at the time of our analysis. While we did not conduct a formal review of the literature, we identified some key impact findings from these studies.
- Most (10 of 12) examined results for short-to-medium-term (one to four year) follow-up periods; only two included follow-up periods of five years or longer.
- Of the ten impact studies that examined educational outcomes, seven found statistically significant positive results, one found mixed results, and two found mostly negative results.
- Of the nine that examined earnings, three found statistically significant positive results, five found mixed results, and one found mostly negative results.
- Only one of the eight completed random assignment studies included at least one more fully developed career pathways site (one offering multiple steps of training).

Looking forward, considerably more will be learned in coming years about career pathways strategies, both from ongoing research and from practice.

- At the time of our analysis, more than half of the research studies on career pathways initiatives were ongoing studies, and more than half of all the implemented career pathways initiatives we examined were active.
- Some important new findings were released between the time of analysis and this brief’s publication. For example, the Pathways for Advancing Careers and Education initiative (PACE) began to release early impact reports which show programs increased attainment of postsecondary occupational credentials in four of five

sites. Later intermediate and long-term impact reports will examine PACE sites' impacts on employment and earnings.

- As newer and longer-term evaluation findings on career pathways strategies become available, they should shed light on whether early positive impacts on attainment of educational credentials (certificates and degrees) ultimately translate into sustained economic benefits.

Few comprehensive career pathways approaches appear to exist in early care and education; rather, we found other promising practices aimed at addressing barriers specific to ECE worker advancement.

- Among the studies and initiatives we reviewed, about 10 percent included ECE occupations. Registered Apprenticeship and the Teacher Education and Compensation Helps (T.E.A.C.H.) Early Childhood[®] Initiative appear to be the main career pathways program models that exist in this sector.
- While the *Career Pathways in Early Care and Education* report identified few comprehensive ECE career pathways initiatives, we did find other promising practices that address barriers specific to ECE worker advancement, such as wage and compensation supplements, portability of credentials, articulation of professional development and training, and credit for prior learning.
- These practices hold the possibility for becoming the building blocks of comprehensive career pathways in the ECE field; more research is needed to understand whether the structure of employment and compensation in the ECE field offers enough advancement opportunities to make career pathways strategies viable.

Priority Research Questions and the Evaluation Design Options Report

The three knowledge development reports described above each culminated in identification of research questions that, if answered, would advance our understanding of career pathways system- and program-level strategies. We winnowed down the questions in collaboration with DOL to a list of priority research questions that reflect those most relevant to the workforce development field and least likely to be fully addressed by current ongoing research. The table below (Exhibit 1) details these research questions, approaches to addressing them, and possible data sources for addressing them. The *Evaluation Design Options* report also describes practical considerations and tradeoffs for each set of research questions, covering issues related to implementation, timing, and cost of each of the proposed approaches and data sources.

Conclusion

This project's knowledge development phase pointed to a wide range of possible research on career pathways strategies that could help policymakers and program administrators understand what works well, why, under what circumstances, and for whom. The *Evaluation Design Options Report* synthesized these knowledge development discoveries and explored a range of research design options available to address different types of questions. The discussion of these options may help guide DOL, and others interested in advancing the evidence base on career pathways strategies, in setting an agenda for future inquiry.

This brief summarizes reports from the Career Pathways Design Study, prepared for the U.S. Department of Labor (DOL), Chief Evaluation Office by Abt Associates, under contract number DOLQ129633231/DOL-OPS-16-U-00055. The views expressed are those of the authors and should not be attributed to DOL, nor does mention of trade names, commercial products, or organizations imply endorsement of same by the U.S. government. The final reports are available online at: <https://www.dol.gov/asp/evaluation/CompletedStudies.htm>

Exhibit 1: Career Pathways Design Study—Research Questions, Approaches and Data Sources

Research Question Set	Possible Approaches	Data Sources
<p>Impact on Participant Outcomes</p> <ul style="list-style-type: none"> • What impacts do career pathways programs have on participants’ advancement through multiple, progressively higher levels of education and training, and associated jobs, within a pathway over time? To what extent do participants move beyond entry-level training and employment, even over a long follow-up period? • Which components of career pathways programs are the strongest drivers of impacts? To what extent is the impact of a combination of career pathways components greater than that of any individual part? That is, are certain components more effective when bundled together? • For what groups are career pathways programs most effective? To what extent can career pathways approaches influence groups not commonly included in career pathways research to date? And which components matter most for which subgroups? 	<ul style="list-style-type: none"> • Descriptive analyses • Meta-analyses • Build on existing impact evaluations • Design new (experimental) impact evaluations • Use quasi-experimental designs (comparison group, time series, regression discontinuity) • Use quasi-experimental analytic approaches (difference-indifference, individual fixed effects, cross-state analyses) 	<ul style="list-style-type: none"> • Existing impact evaluations • Administrative data • Survey data
<p>Workers’ career trajectories in the economy</p> <ul style="list-style-type: none"> • In the absence of career pathways programs, to what extent, and how, do workers advance on their own through multiple, progressively higher levels of education and training, and associated jobs, within a pathway over time? To what extent is advancement more common for workers from specific settings or backgrounds? To what extent do wages increase for workers who progress through these pathways? What are the implications for designing and evaluating career pathways initiatives? 	<ul style="list-style-type: none"> • Use extant survey and administrative data to identify trajectories that occur commonly in the labor market • Design a new survey instrument to track workers, using a sample that is representative of the labor market as a whole or a single industry sector • Use predictive analytics to determine possible career trajectories of workers • Use qualitative research methods to better understand career trajectories 	<ul style="list-style-type: none"> • Current Population Survey • Panel Study of Income Dynamics • American Community Survey • Occupational Employment Statistics • Workforce Innovation and Opportunity Act data • National Longitudinal Survey of Youth • Data from private companies • Structured interviews
<p>Role of the public workforce system in career pathways initiatives</p> <ul style="list-style-type: none"> • What roles in career pathways initiatives is the workforce system playing as compared with other entities that more commonly lead these strategies, such as community and technical colleges? 	<ul style="list-style-type: none"> • Review existing studies • Conduct implementation research • Conduct pilot studies 	<ul style="list-style-type: none"> • Primary qualitative data • Administrative data
<p>Cost Analyses</p> <ul style="list-style-type: none"> • What are the costs associated with a given career pathways program to participants, funders, and employers, including opportunity costs? What do those costs “buy”? And to what extent are the benefits worth the cost? 	<ul style="list-style-type: none"> • Conduct cost allocation analysis, cost-effectiveness analysis, or cost-benefit analysis. Each of these represents different strategies for monetizing programs’/initiatives’ costs and/or benefits such that they can be compared to each other or to other programs/initiatives. 	<ul style="list-style-type: none"> • Profiles of programs • Qualitative data • Cost data collection interviews • Follow-up surveys • National administrative data • Program records • Surveys of employers