



Using Data to Design, Manage and Improve Career Pathways

The process of building career pathways is heavily reliant on data, from the initial step of selecting industries and occupations for targeting, through recruiting and retaining participants in pathways programs, to evaluating the effectiveness of pathways in promoting career advancement of participants and meeting the workforce needs of employers.

The following outlines key questions to be asked at each stage of the career pathways development process and lists possible sources of data for answering them.

Selecting Target Industry Sectors

Questions:

- Which existing or emerging industries are important to the economic future of your region?
- What is the current and projected demand for labor in these sectors? To what extent do the jobs in demand pay wages sufficient to support a family?
- What problems do employers in each sector have hiring, retaining and advancing workers?
- What barriers do residents of your region face to securing the good jobs in demand or advancing to better positions in these industries?
- What education and employment programs related to each sector currently exist in the region? How well are they meeting the demand from employers and enabling residents to enter and advance in these fields?

Data sources:

- State labor market information, including projections, by region
- Industry labor market studies (e.g., employer association hiring studies)
- Census data on workforce demographics (employment by industry, occupation, educational attainment, age, race/ethnicity, and residence)
- Local economic development studies and plans
- Data from state education agencies on test scores and graduation numbers and rates by high school and student race/ethnicity and gender.
- Data from state or federal agencies or local institutions on postsecondary enrollment and rates of remediation by institution and student characteristics
- Data from state or federal higher education agencies on the number of credentials by institution, degree level, field and student characteristics.

Mapping Career Pathways

Questions:

- ❑ What are the requirements for entry and advancement in jobs at different levels in the given industry?
- ❑ What changes or additions are needed to existing programs and services to enable residents to enter and advance in jobs in the target sector?

Data sources:

- ❑ Interviews/surveys with employers in the target industry
- ❑ Task or competency analyses of jobs in the sector
- ❑ Interviews/surveys with alumni who are employed in the sector on trends in job demand and requirements, recommendations for program improvement, etc.
- ❑ Interviews/surveys with admissions staff and faculty at each level of education and training on requirements for entry and success
- ❑ Analysis of placement exams and entry and outcome competencies of education and training programs at each level

Improving Recruitment

Questions:

- ❑ What are the characteristics of students/participants in existing programs in the target sector by age, ethnicity, and place of residence?
- ❑ Where do these individuals come from (e.g., directly from high schools, community organizations, employers (incumbent workers), etc.)? What motivated them to enter the given program and what barriers did they face? In general, what are the barriers to access into these programs?
- ❑ Are there other sources of students for these programs that are not being tapped? What would it take to recruit students/participants from these sources and prepare them for success in programs in the target sector?

Data sources:

- ❑ Student/participant information systems (for data on characteristics)
- ❑ Interviews/surveys with current students/participants (for information on barriers and recruitment methods)
- ❑ Market studies, including interviews/surveys with prospective students and staff and faculty from “feeder” institutions/programs
- ❑ Data sharing with feeder programs (to allow longitudinal tracking from high school to college; adult education to college; non-credit to credit; community college to four-year college; etc.)

Increasing Retention

Questions:

- ❑ What is the rate at which students/participants successfully complete education and training and other preparation for employment in the given sector by program?
- ❑ What are the characteristics of completers compared to non-completers?
- ❑ What are the course-taking patterns of students/participants from the time they enter the institution? What are the barriers that prevent students from advancing?
- ❑ Why do some students/participants not complete? How can barriers to completion be overcome and completion rates increased?

Data sources:

- ❑ Student/participant information systems (for data on course-taking patterns and completion rates of longitudinal cohorts)
- ❑ Interviews/surveys with current students/participants, dropouts and completers
- ❑ Interviews/focus groups with faculty and student support staff

Enhancing Placement and Advancement

Questions:

- ❑ How successful are program completers in securing employment or advancing to better jobs in the target sector? What barriers to employment or job advancement do they face?
- ❑ How successful are program completers in advancing to the next level of education and training? What are the obstacles to advancement?
- ❑ What happens to non-completers?
- ❑ What needs to change to improve employment and further education outcomes?

Data sources:

- ❑ Interviews/surveys with program completers
- ❑ Interviews/surveys with employers that hire completers
- ❑ Unemployment Insurance (UI) wage record data (to track employment and wage outcomes and wage progression of completers and non-completers)
- ❑ Interviews/surveys with faculty at next level of education/training
- ❑ Data sharing with institutions/programs at the next level of education (to track advancement to and success of program completers at the next level)

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