



## Overview

### Helping Schools Bridge the Gaps

#### A Shifting Workforce Landscape

Dramatic shifts in the workforce landscape are occurring within the United States and across the globe. These changes are due, in large part, to the emergence of the **Fourth Industrial Revolution**. Unlike previous revolutions, Industry 4.0 is rapid and pervasive. It centers around advances in automation, artificial intelligence, and the fusion of technology with almost every aspect of daily living. This fast-moving revolution is creating a new reality for job markets and fueling an unprecedented demand for a skilled workforce, especially for individuals with STEM-related skills.

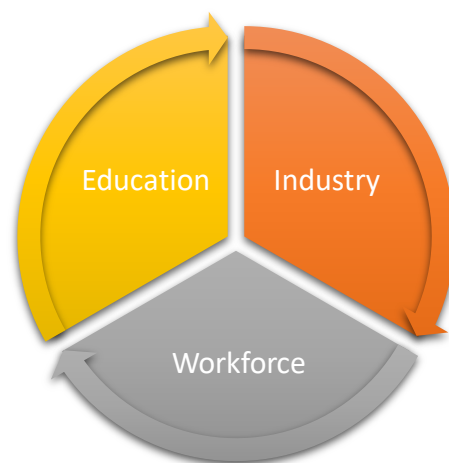


#### A Need for Connection

Because education and industry tend to operate in separate domains, schools and students remain largely unaware of the rapid shifts that are occurring in their local labor market. This lack of connection is resulting in significant gaps that can interfere with students' ability to achieve **employment success**.

**Information Gap** = Students lack knowledge of their local labor market and the skills needed to promote employment success.

**Skills Gap** = Students are leaving educational institutions and entering the workforce with skills that do not align with today's jobs.



#### Creating Bridges to Employment Success

To address the widening information and skills gaps, changes are needed in how schools connect with and use information about their local job markets.

- School and students need access to clear and accurate **information** about local job opportunities.
- Schools will need to reevaluate learning goals and upscale efforts to teach **skills** that align with today's jobs.
- Information about good jobs and valued skills can be used to develop meaningful learning experiences that **prepare** students for employment success.

# Pathway2Careers

Pathway2Careers is unique both in focus and resources available to promote career-readiness. The P2C system extends beyond simple career awareness and, instead, places considerable emphasis on understanding viable career destinations for students. Using robust labor market data, P2C provides the ability to examine high-value career options in local communities. These career destinations serve as a critical point of focus to inform the development of resources and materials that are directly aligned with the skill requirements for current and future jobs. Pathway2Careers supports education in the context of real, data-supported career opportunities.

## How P2C Works



## P2C Products and Services

Select Your Career Cluster: All Career Clusters GO

Select Your School District: All School Districts

Occupation - Cluster	Annual Openings	Median Wages	Projected New Jobs	Growth Rate	Pathway	Job Zone/ Education
Retail Salespersons - Marketing, Sales and Service	1183	\$22,100	1908	6.67%	Professional Sales and Marketing	1
Personal Care Aides - Human Services	1081	\$19,080	9074	42.24%	Personal Care Services	1
Combined Food Preparation & Serving Workers, Incl. Fast Food - Hospitality and Tourism	1013	\$18,050	3997	21.07%	Restaurants and Food/Beverage Services	1
Waiters & Waitresses - Hospitality and Tourism	974	\$18,690	1900	11.66%	Restaurants and Food/Beverage Services	1

### Career Spotlight

**Applications Developer**  
Application developers build, create, and modify general computer applications software or specialized utility programs. They also analyze user needs and develop solutions.

**Education**  
Software developers usually complete science, software or science degree programs and cover a broad range of topics to building software to better occupation. Many students gain completing an internship at a same position, employers may degree.

**Potential Employers**  
Software developers, application analysts of software, computer systems design, software publishers, finance and insurance, manufacturing, management of companies.

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**Industrial Engineer**  
Industrial engineers find ways to eliminate wastefulness in production processes. They design efficient systems that integrate workers, machines, materials, information, and energy.

**Education**  
Industrial engineers need a 4-year engineering degree. Students interested in studying school courses in mathematics, statistics, computer science, and general science and universal industrial engineering that lead completion. Some 5-year or combine classroom study with gain experience and to finance.

**Potential Employers**  
Transportation equipment, professional, scientific, computer and electronic machinery manufacturing, fabricated metal products.

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**Carpenter**  
Carpenters work indoors and outdoors on many types of construction projects, from building highways and bridges to installing kitchen cabinets. They construct, erect, install, and repair structures and fixtures of wood, aluminum, and wallboard, using carpenters' hand tools and power tools. Carpenters may work in cramped spaces. They frequently shift between lifting, standing, and kneeling, the result of which can be tiring. Those who work outdoors are subject to variable weather conditions, which may limit a carpenter's ability to work.

**Education**  
A high school diploma or equivalent is typically required. High school courses in mathematics, mechanical drawing, and general vocational technical training are considered useful. Some technical schools offer associate's degrees in carpentry. The programs vary in length and teach basics and specialties in carpentry.

**Potential Employers**  
Carpenters held about 1.0 million jobs in 2016. The largest employers of carpenters were as follows:

Self-employed workers	33%
Residential building construction	21
Nonresidential building construction	12
Building finishing contractors	11
Foundation, structure, and building exterior contractors	9

**Math Required**  
• Arithmetic  
• Algebra  
• Geometry  
• Calculus  
• Statistics

**Is this a good career for me?**  
Carpenters tend to:  
• be more realistic. They prefer working with practical, hands-on problems.  
• learn more toward conventional approaches. They like following set procedures and routines.  
• have investigative interests. They enjoy searching for facts and solving problems.

## Simple Labor Market Exploration Tools for Educators

### Helpful LMI Terms and Definitions

**Career Clusters**  
What are career clusters?  
• National Career Clusters Framework [careertech.org/career-clusters](http://careertech.org/career-clusters)  
• Occupations different cluster in foundation

**Labor Market Information**  
Annual Openings = average number of job openings projected for each year

**High-Value Careers**  
High-Value = High-Demand + High-Wage  
To successfully identify high-value careers, effective search strategies for both high-demand and high-wage careers will need to be applied.

## Labor Market Resources and Professional Development for Educators

## Career-Focused Math and Reading Lessons

Learn more at [Pathway2Careers.com](http://Pathway2Careers.com)