

## Career Pathways Initiatives

### Introduction

As students plan and prepare for and transition to college and careers, career pathways programs help students to gain workforce experience and skills and consider the connection between their career interests and educational plans. This brief describes major national and regional career pathways initiatives and provides lessons learned for states considering the development and implementation of statewide career pathways programs.

### What Are National and Regional Career Pathways Initiatives?

All 50 states and U.S. territories receive federal funding through the Carl Perkins Career and Technical Education Act of 2006 (Perkins Act), and a requirement of receiving these funds is that a state create at least one career and technical program of study or career pathway that includes academic, career, and technical content that prepares students to make a successful postsecondary transition to education and the workforce (U.S. Department of Education, n.d.).

Some states have joined national and regional initiatives to design and implement multiple career pathways across their respective states. These initiatives expand Perkins Act requirements by doing any of the following: (1) aligning career courses, programs, and training across state K–12 and higher education systems, (2) aligning education and workforce efforts around career pathways, or (3) creating and implementing common definitions and measures of career areas, course sequences in particular career pathways, implementation, student learning, and student outcomes. Several major national and regional career pathways initiatives take different approaches to supporting states with career pathways design and implementation.

#### Defining career pathways

There are several definitions of career pathways developed by the organizations supporting the work of career preparation for students. The U.S. Departments of Education, Health and Human Services, and Labor define a career pathway as a “series of connected education and training strategies and support services that enable individuals to secure industry relevant certification and obtain employment within an occupational area and to advance to higher levels of future education and employment in that area.”

(U.S. Departments of Education, Labor, and Health and Human Services, 2012)

## Creating Regional K–14 Networks and Systems

The [Pathways to Prosperity Network](#) supports member states in creating explicit pathways, linking high school, work, and community college for students from Grades 9 to 14 to increase the number of students attaining a postsecondary credential with labor market value. These pathways span three sectors that consistently emerge in labor market studies to be areas of high labor market growth for students with two-year degrees to find an entry-level job—advanced manufacturing, health care, and information technology. The network approach is to focus on designing the pathways to meet local needs and contexts, piloting those pathways, and then working to bring educational opportunities in high-demand career areas to students across the state. This network is led by Jobs for the Future, which provides ongoing technical assistance support to its members to create regional networks that span secondary and postsecondary education. Participating states include: Arizona, California, Delaware, Georgia, Illinois, Massachusetts, Missouri, New York, Ohio, Tennessee, and Wisconsin.

## Creating Frameworks and Measures in Community Colleges

The [Alliance for Quality Career Pathways](#) provides a set of clear criteria and indicators for what constitutes a high-quality state and local career pathway system, as well as metrics to assess implementation and student performance. The career pathways framework and tools focus specifically on identifying pathways for students that will have labor market value and on measuring student outcomes in terms of educational attainment and labor market outcomes. The alliance's work focuses on community colleges. The alliance is led by the Center for Law and Social Policy (CLASP). Participating states include: Arkansas, California, Illinois, Kentucky, Massachusetts, Minnesota, Oregon, Virginia, Washington, and Wisconsin.

## Creating Curriculum Frameworks in Secondary Schools

The [National Career Cluster Framework](#) (NCCF) is officially recognized by the Office of Career, Technical, and Adult Education (the federal administrative body of the Perkins program) and the National Association of State Directors of Career and Technical Education Consortium. The career clusters reflect industry sectors for which states may develop and implement career and technical programs of study.

The NCCF contains 16 career clusters, representing 79 career pathways. The framework is organized by industry areas and career pathways that require similar knowledge, skills, and courses and result in similar career opportunities. It was created as an organizing tool for curriculum design and instruction, including the potential to bridge and align secondary and postsecondary curricula and students' career preparation in a particular program of study. Since its development, 11 states have created explicit career pathways that align with the 16 clusters in the NCCF: Iowa, Kansas, Louisiana, Minnesota, Mississippi, Missouri, Montana, New Mexico, New York, Pennsylvania, and Virginia. An additional 11 states use a modified version of the NCCF's 16 career clusters, omitting some career clusters or adding others: Alabama, Arkansas, California, Colorado, Georgia, Kentucky, New Jersey, Ohio, South Carolina, Texas, and Wisconsin.

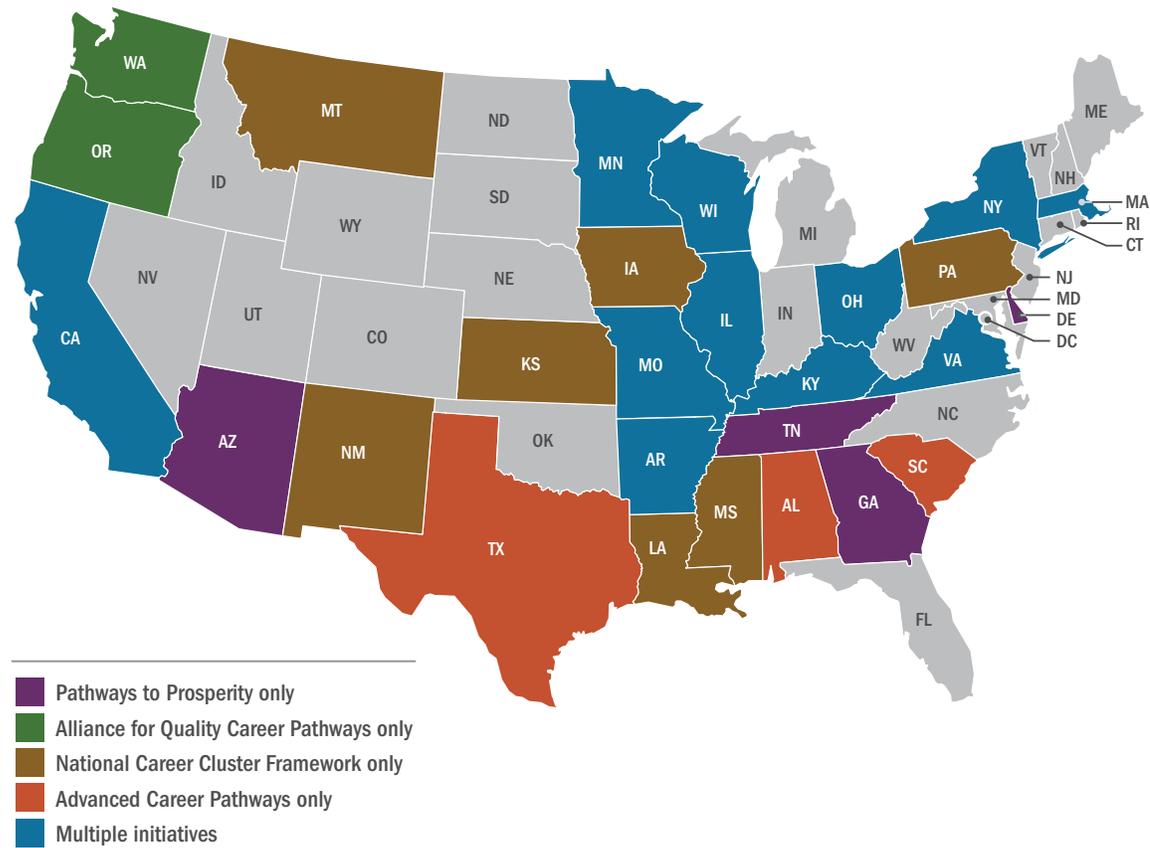
## Creating Career Curriculum in Secondary Schools

The [Advanced Career Pathways](#) model calls for designing and implementing a pathway of four career and technical courses in a specific career field that students take in an articulated course sequence during their high school career. The courses are designed to ensure that they are rigorous enough for students to meet college- and career-readiness standards. The goal is that upon completion of a career pathway course sequence, students would be ready for an entry-level job in the career area or postsecondary education without a need for remediation. Two of the courses in the sequence are considered foundational; another two are advanced and allow students to earn dual (both high school and postsecondary) credit. The goal is for courses developed in one state to be transportable and scalable across states and schools. This initiative is led by the Southern Regional Education Board. Participating states include: Alabama, Arkansas, Kentucky, Ohio, South Carolina, and Texas.

## Which States Participate in These National and Regional Career Pathways Initiatives?

As Exhibit 1 shows, 29 states participate in these national or regional career pathways initiatives. Eleven of these states are involved in multiple career pathways initiatives.

**Exhibit 1. State Participation in National and Regional Career Pathways Initiatives**



Note. This map does not include states that use a modified version of the NCCF.

## STATE SPOTLIGHT California



California has been implementing career pathways for many years through its partnership academies and Linked Learning, and is currently in the process of implementing a statewide grant program to invest in career pathways implementation.

[California Partnership Academies](#) (CPA) is a three-year, school-based program for students in Grades 10 through 12. Students enroll in a small learning community with a career theme and receive access to rigorous academic and career and technical education. A [profile report](#) of CPAs indicated that in 2009–10, there were 467 CPAs across the state (constituting 22 percent of comprehensive high schools). The most common partnership academy themes are health science and medical technology; arts, media, and entertainment; finance and business; engineering and design; and public services.

[Linked Learning](#) was created by a statewide coalition of education, industry, and community organizations in California and is designed to integrate rigorous, college-preparatory academics with career-based education and work-based learning opportunities. Nine districts in California are part of the [California Linked Learning District Initiative](#). A range of technical assistance providers in the state support districts in developing Linked Learning pathways in career areas aligned with projected local labor market needs and student interests. Providers work with community colleges, adult schools, and workforce entities to implement Linked Learning pathways. California also is a member of the national Pathways to Prosperity network, which was described earlier in this brief.

The [California Career Pathways Trust](#), created by Assembly Bill 86 in 2014 and expanded in 2015, has allocated \$500 million to fund one-time competitive grants to school districts, county superintendents, charter schools, regional centers or programs, and community college districts to develop and implement career pathways in Kindergarten through Grade 14. In total, 79 entities received grant awards. The Career Pathways Trust builds on the state's long-standing implementation of partnership academies and its work with Linked Learning and the Pathways to Prosperity network. A [state progress report](#) describes California's career pathways work in greater detail.

## STATE SPOTLIGHT Massachusetts



The Massachusetts Department of Education is developing career pathways in targeted career areas and geographic regions across the state.

As part of the state's [Gateway Cities Education Agenda](#), nine cities were awarded competitive grants to establish career academies in 2013 to provide students with career exploration, applied learning opportunities, and multiple pathways to postsecondary education. Grant recipients are working to create Education and Industry Coordinating Councils that are cochaired by the public school district superintendent and the chair of the local Workforce Investment Board.

Through the Massachusetts [Connecting Activities](#) initiative, the Massachusetts Department of Elementary and Secondary Education's Office of College and Career Readiness is funding the state's 16 local workforce investment boards to partner with high schools, community colleges, and employers to develop advanced manufacturing, health care, and information technology pathways to develop work-based learning and career development opportunities for students across the state.

## STATE SPOTLIGHT Wisconsin



Wisconsin has redesigned its technical college system, with support from CLASP and the Alliance for Quality Career Pathways framework. It began by creating and piloting a set of career pathways and is currently working to expand the number of career pathways to cover every major sector and to expand the availability of career pathways to every technical college district in the state. Wisconsin's technical college system has worked closely with the state's workforce sector in the development, implementation, and coordination of career pathways programs as well as to develop student success measures. This work has been jointly funded by public and private sources to ensure shared commitment, accountability, and sustainability. Wisconsin was part of the [Shifting Gears Initiative](#), which promoted regional economic growth in six Midwestern states by strengthening alignment and collaboration across the adult education, workforce, and community and technical college systems; achieving buy-in of senior state leadership; enacting state policy changes; and creating local practitioner champions. Wisconsin also received a federal [Trade Adjustment Assistance Community College and Career Training grant](#) to expand its education and career training programs that can be completed in two years or less.

## What Should States Interested in Career Pathways Consider in Choosing From Existing Initiatives?

Several considerations emerged from examining national and regional career pathway initiatives.

### **Start by developing a limited number of career pathways.**

It is important for states that are beginning to design and implement career pathways to consider whether and how to limit the number of career areas of focus to best create, implement, and sustain high-quality career pathway opportunities for students.

The National Career Cluster Framework categorizes and reduces the plethora of career and technical courses and industry areas into 16 career clusters. The Pathways to Prosperity Network focuses on three industry areas that were consistently shown in labor market studies across the network states to be areas of high labor market growth for students with two-year degrees to find an entry-level job—advanced manufacturing, health care, and information technology.

The Advanced Career Pathways initiative focuses on selecting one high-demand, high-growth industry in the state and developing a four-course sequence in that industry area. The existing pathways are aerospace engineering (Alabama), innovations in science and technology (Arkansas), informatics (Kentucky), health informatics (Ohio), clean energy technology (South Carolina), oil and gas (Texas), and energy and power (West Virginia). Local workforce needs and projections will shape other states' interest in specific career pathways and programs of study.

### **Create programs of study that align specific postsecondary education credentials or degrees and job opportunities within each career pathway.**

After states decide which career areas to focus on in their career pathways development and implementation, an important component of the quality of career pathways is in the alignment between completion of the pathway and specific educational credentials or degrees and job

opportunities. Alignment between secondary and postsecondary education is critical here. The articulation of career and technical coursework with industry certificates, credentials, postsecondary education credits and degrees, and job opportunities is called a program of study in the Perkins Act. See the Program of Study text box for details.

### Defining a Career Pathway Program of Study

As a requirement of the Perkins Act, local education agencies and postsecondary institutions in a state must offer at least one career pathway program of study that

- Incorporates secondary and postsecondary education
- Includes coherent and rigorous content aligned with challenging academic standards and relevant career and technical content in a coordinated, nonduplicative progression of courses that align secondary and postsecondary education
- May include opportunities for secondary students to earn postsecondary education credits through dual or concurrent enrollment programs or other means
- Leads to an industry-recognized credential or certificate at the postsecondary level or an associate's or bachelor's degree (U.S. Department of Education, n.d.)

The Alliance for Quality Career Pathways provides guidance on how to create career pathway programs of study with particular focus on credential or degree attainment and labor market outcomes for community college students. The Pathways to Prosperity network provides states with support in designing and implementing career pathways from Grades 9 to 14 to bridge secondary and postsecondary education in an articulated program of study. Some of the member states have extended their pathways down to Grade 7 and up to Grade 16. States interested specifically in designing programs of study that align secondary and postsecondary courses, credits, and degrees may want to connect with participating states or the lead organizations of these initiatives.

## Conclusion

As states' work continues to evolve with preparing students for success after high school, career pathways are an important option for increasing student engagement in high school and increasing their educational attainment and workforce success after they complete high school. The national and regional career pathway initiatives described in this brief offer ideas for how states can design and implement career pathways that provide students with training in specific career areas that are aligned with local labor market needs as well as with postsecondary credits, credentials, certificates, and degrees.

## References

Carl D. Perkins Career and Technical Education Act of 2006, Pub. L. No. 109-270, 20 U.S.C. 2301 et seq.

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