Policy Brief | January 2026

SREB

Pathways by Design: A Guide to Connecting Learning to Career

As workforce needs continue to shift, a structured, collaborative approach for designing high-quality career pathways can help bridge education and workforce needs. This guide aims to establish a structured, collaborative process while remaining flexible to meet state- and region-specific needs. A successful career pathway should be designed to align labor market demand, curriculum development and continuous improvement to ensure students gain the skills, credentials and employment needed for career success.

This design guide offers a comprehensive and collaborative framework for building pathways that link to high-demand, high-wage and high-skill career fields. By adhering to the following steps, education and workforce leaders can ensure students gain the skills and credentials they need to access meaningful careers while supporting regional economic growth.

The Elements of a Career Pathway

Every student deserves a pathway that guides their educational and career journey, outlines the steps and provides the support needed to reach their goals.

Inside

This report was written by Natalee Jones, policy analyst, and Tim Shaughnessy, director of career pathways. Ivy Coburn, division director of education and workforce, and Linda Floyd, director of state and district partnerships, also contributed to the report.

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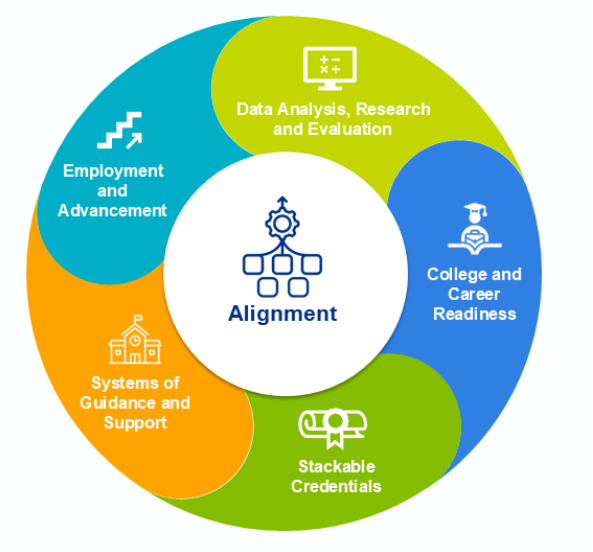
Career pathways are for all students and apply to all education and training, not just career and technical education. High-quality career pathways link workforce needs and provide students with the skills and knowledge necessary to succeed.

The Southern Regional Education Board defines **career pathways** as connected sequences of education and training that support and prepare students to gain the knowledge and skills needed to attain postsecondary credentials and employment. A postsecondary credential is awarded by a postsecondary institution, industry or professional association and is accepted as evidence of skills and knowledge needed for employment or advancement.



SREB promotes the following six elements of high-quality career pathways:

- **Alignment** is central to the high-quality pathways and lays the foundation from which the other elements are implemented. Pathways should be integrated across K-12 schools, community and technical colleges, four-year institutions and the workforce to support a rigorous program of study that leads to meaningful credentials.
- Through **data analysis, research and evaluation**, career pathways are evidence-based and align with labor market demand by using data to identify high-wage, high-skill and high-demand occupations, track student progress and workforce outcomes through longitudinal data systems, and promote transparency and continuous improvement.
- Career pathways help foster **college and career readiness** by integrating academic and technical content with real-world, work-based learning experiences. Industry partners guide these experiences by defining in-demand skills, validating learning through assessments and credentials, as well as connecting classroom instruction to students' interests, aptitudes and career goals.
- Students can build on and accumulate qualifications through **stackable credentials** by multiple entry and exit points in career pathways, and by embedding and validating industry-recognized credentials within programs of study. Career pathways should offer sequential, credit-bearing opportunities that build on one another so learners can advance their education and careers.
- As students prepare for college and their career, **systems of guidance and support** help students engage in career awareness, exploration and preparation throughout their education. These systems are reinforced by timely, data-informed advising, annual reviews of individualized academic and career plans, and access to information on occupations, skills and educational requirements that help them align their goals with state and regional workforce needs.

- The goal for any career pathway is for students to find **employment and career advancement**. Career pathways are designed to meet workforce demands for high-skill, high-wage, high-demand jobs, embed transferable skills to support career mobility, recognize prior learning to accelerate progress and provide ongoing opportunities for upskilling and reskilling so learners can secure employment and advance their careers.

The career pathways design process is grounded in the key elements of high-quality career pathways. Each step of the process reinforces these elements to reflect pathways that are aligned, data driven, support college and career readiness, provide guidance and support, and lead to employment and career advancement.

The Career Pathway Process

To build high-quality career pathways, SREB recommends that education and workforce leaders come together to address three phases: design, development and continuous improvement.

Design

Subphase One: Cross-Sector Pathway Steering Committee

The design phase begins with the establishment of a cross-sector pathway steering committee that ensures the pathway aligns with both labor market demand and student needs, while also considering how to support the educators providing the pathway. This steering committee brings together secondary and postsecondary educators, workforce training providers, employers, industry partners, economic development representatives and local policymakers. Including students or recent graduates adds valuable learner perspectives. The outcome should be a committee that ensures the pathway reflects both industry needs and learner progression, both by design and through implementation.

Step 1: Establish the Need and Analyze Labor Market Demand for Career Pathways

Once the steering committee is in place, the first step of designing a career pathway is to establish the need and analyze labor market demand. The committee should define the targeted career field and occupational scope by identifying high-demand sectors and emerging occupations supported by current and projected workforce needs. This includes conducting rigorous labor market research using tools such as labor market information data analysis, labor forecasting systems, and local, regional and state employment data. Employers and practitioners should contribute insights into evolving skill requirements.

To establish the need for the pathway, the committee should analyze the occupational landscape to group related roles by skill sets and career progression, from entry level to advanced roles, and identify relevant credentials, certificates, licenses and required levels of education or training. This will result in a clearly defined, skills-based occupational cluster supported by labor market evidence and a career pathway that has a well-articulated purpose. The pathway should connect both current and future workforce demands that inform curriculum and program development.

Step 2: Define Skills, Competencies, and Education and Training Requirements

The steering committee defines the technical, academic, and employability skills and knowledge required at each phase of the pathway — entry, mid-career and advancement. The objective should be to create a detailed skill and competency framework to align curriculum and credential alignment.

Step 3: Map Secondary and Postsecondary Training Opportunities and Credentials

Once the skill and competency framework are established, the steering committee maps the available postsecondary options for training, including short-term programs, one-year certificates and degree programs that connect learners to progressive levels of education and employment. The committee should also consider dual enrollment and articulated credit options to create seamless transitions between education systems. The identified postsecondary options should align with industry needs, to ensure regional availability and practitioner input. The steering committee creates a visual or interactive map or guide to local and regional postsecondary options, aligning secondary education with postsecondary training and credentials.

Subphase Two: Secondary and Postsecondary Educator Subcommittee

In the second subphase of design, a secondary and postsecondary educator subcommittee will use the information gathered in the first subphase to develop curriculum and instructional resources. The subcommittee is comprised primarily of educators on the steering committee but should also include curriculum designers, career and technical education directors, chief academic officers and industry partners. This subcommittee ensures that the pathway reflects both industry needs and labor market demand with learner progression.

Step 1: Select or Create Standards and Course Sequences

The subcommittee's first task is to select or create course standards and sequences that reflect the knowledge and skills identified in Step 2 of Subphase 1. In established fields, existing state standards and curricula may be reviewed, cross-walked and adapted as needed. For new or emerging fields, the subcommittee should develop new standards and learning objectives that are sequenced from foundational and advanced levels. Whether adapting or designing anew, the course sequence should connect secondary and postsecondary learning, integrate project-based, WBL and other hands-on instructional strategies, and support stackable credential opportunities.

The secondary portion of a career pathway should include a recommended course sequence with aligned standards and learning objectives. All career pathways should include postsecondary education and training, with postsecondary on-ramps and off-ramps allowing for stackable credentials and tiered employment opportunities at multiple levels of expertise and experience.

Step 2: Identify Acceleration and Work-based Learning Options

After establishing the standards and sequencing, the subcommittee then should identify acceleration and WBL options that allow students to apply academic and technical knowledge in a practical environment to help bridge the gap between theory and practice. These include job shadowing, internships, apprenticeships, practicums, experiential learning and cooperative education. Postsecondary credit should also be considered through dual enrollment opportunities with articulated credit or industry-recognized credentials that are validated by employers.

If Existing Courses or Standards Are Available	If New or Emerging Fields Require Custom Development
• Review available course titles, standards and descriptions published by the state. • Crosswalk course objectives with identified skills and knowledge. • Engage secondary and postsecondary instructors to evaluate the fit of available courses. • Sequence courses to build logically from foundational to advanced skills. • Determine if existing curriculum or assessments can be adopted as is or adapted as needed. • Confirm whether articulation agreements or dual credit opportunities are already in place.	• Begin with the list of technical, academic and employability skills identified. • Co-develop learning standards or competency statements with postsecondary and business partners. • Organize the skills into a logical course sequence. • Define learning objectives and potential instructional activities for each course. • Reference training programs, credential prep courses or national models for guidance. • Design with flexibility to allow for future updates or credential alignment.

Integrated acceleration points allow students to earn credentials and gain practical experience while progressing through the career pathway.

Step 3: Select or Build Curricular Resources

Finally, the subcommittee selects or builds curricular resources that engage learners in real-world learning that promote college and career readiness while reflecting real workplace environments. This could include selecting existing high-quality curricula where available or developing new curriculum materials. The curricular resources should emphasize college and career readiness, and use instruction strategies such as project-based learning, WBL and other experiential learning methods to best reflect academic rigor and skill development. Pathways with high-quality curricular resources will support the goals of the pathway and engage students in real-world learning.

Implementation

Step 1: Communicate and Launch the Pathway

Once designed and developed, the pathway is prepared for launch. The career pathways steering committee, in partnership with educators and community partners, finalizes all pathway materials — including student and counselor guides — and plans professional development for educators to equip students with the knowledge to deliver the pathway effectively. A strong communication strategy ensures that students, parents, employers and the community understand the value of the pathway. A clearly defined and communicated career pathway will be ready for implementation.

Step 2: Provide Student Advisement and Support

As the pathway is implemented, student advisement and support systems become critical. Advisors, counselors, teachers and postsecondary faculty guide students through course selection, career path exploration and credential and goal completion, providing mentorship, career counseling and access to resources. These supports ensure that each learner successfully navigates the pathway and remains on track to achieve their career and education goals.

Continuous Improvement

Step 1: Monitor, Evaluate and Continuously Improve the Pathway

The final phase focuses on maintaining relevance and quality through ongoing monitoring, evaluation and continuous improvement. The career pathway steering committee, together with the secondary and postsecondary educator subcommittee, uses data on enrollment, completion, credential attainment and employment outcomes to assess effectiveness and the success of the pathway.

Feedback from students, employers and educators informs program refinements, while annual reviews ensure that the pathway continues to align with industry demand and learner outcomes with updated data and maps. The decision to evaluate the pathway creates a culture of continuous improvement and accountability that adapts the pathway to meet evolving industry needs and student outcomes.

Key Data Points for Monitoring and Evaluation

Key data points tracked in this phase include student participation and access, course and credential completion rates, WBL engagement, postsecondary and employment outcomes, and stakeholder satisfaction. This cycle of continuous improvement builds accountability and adaptability into every pathway, ensuring it remains responsive to evolving economic and workforce needs.

1. **Participation & Access:** Track student enrollment, demographic representation and school or campus participation.
2. **Course & Credential Completion:** Monitor course completion rates, grades and credential attainment.
3. **Work-Based Learning Engagement:** Measure student participation in WBL opportunities, hours logged and employer feedback.
4. **Postsecondary & Employment Outcomes:** Track postsecondary enrollment, persistence, credential completion, employment rates in related fields, and wages.
5. **Continuous Improvement:** Collect student satisfaction, exit surveys, employer feedback and steering committee reviews to guide improvements.

Connecting Education to Career

The career pathway design process is both structured and collaborative, engaging stakeholders across education, workforce and industry to create systems that connect learning to meaningful careers.

In 2015, two SREB commissions reported that not enough students were earning credentials and degrees in the right fields for today's economy. This statement still holds true a decade later. The solution to this challenge is to transform education with rigorous, relevant career pathways that align secondary, postsecondary and workplace learning and lead to postsecondary credentials that help individuals secure good jobs. The intent of this guide is to be a blueprint for educators, employers and policymakers to use in the implementation of pathways that provide more young people with an education that connects the classroom with the workplace and prepares them to succeed in life.

By following these phases — design, development and continuous improvement — states, regions and institutions can build sustainable pathways that prepare learners for high-skill, high-wage and high-demand careers while strengthening local economies. Ultimately, a well-designed career pathway serves as a roadmap for success, helping students navigate education and employment with purpose, clarity and confidence.

For more information about SREB's Commission on Career Pathways, convened by Georgia Gov. Brian Kemp, contact SREB's Interim President, Dale Winkler, at dale.winkler@sreb.org. To learn more about career pathways, contact Tim Shaughnessy, director of career pathways, at tim.shaughnessy@sreb.org.

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Design

Subphase One: Cross-Sector Pathway Steering Committee

Step 1: Establish the Need and Analyze Labor Market Demand for Career Pathways

Define the targeted career field and occupational scope by identifying high-demand sectors and emerging occupations that reflect current and projected workforce needs.

Step 2: Define Skills, Competencies, Education and Training Requirements

Define the technical, academic and employability skills required at each stage of the pathway.

Step 3: Map Secondary and Postsecondary Training Opportunities and Credentials

Map available postsecondary options for training, including short-term programs, one-year certificates, associate degrees and bachelor's degrees, including dual enrollment and articulated credit opportunities. Identify stackable credentials that align with the skills and competencies.

Subphase 2: Secondary & Postsecondary Educator Subcommittee

Step 1: Select or Create Standards and Course Sequences

Develop or adapt existing course standards and sequences based on skills, logically from foundation to advanced levels. Integrate work-based learning, project-based learning and other hands-on instructional strategies.

Step 2: Identify Acceleration and Work-based Learning Options

Embed career acceleration strategies into the pathway, including work-based learning, postsecondary credit and credentials of value. Clarify terminology and emphasize how learning options evolve from K-12 to postsecondary.

Step 3: Select or Build Curricular Resources

Select existing or develop new high-quality curricula that engage learners and reflect work environments. Emphasize college and career readiness, using instructional strategies to best reflect academic rigor and skill development.

Implementation

Step 1: Communicate and Launch the Pathway

Finalize pathway materials and prepare for the official launch. Plan professional development for educators to ensure they are equipped to deliver the pathway effectively. Clearly communicate the pathway's value to students, parents, employers and the community.

Step 2: Provide Student Advisement and Support

Implement a robust advisement system to guide students through the pathway, helping them select courses, choose career paths, and stay on track to meet credentialing and career goals. Ensure continuous support through mentor ship, career counseling and access to resources.

Continuous Improvement

Step 1: Monitor, Evaluate and Continuously Improve the Career Pathway

Use enrollment, completion, credential attainment and employment data to evaluate the success of the pathway. Collect feedback from students, employers and educators to make data-driven improvements. Re-engage the steering committee annually to review the pathway and update data and maps.

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Southern Regional Education Board
592 10th St., N.W.
Atlanta, GA 30318-5776
(404) 875-9211

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