



**EXPANDED  
PATHWAYS**

**BUILDING**  
YOUR PROGRAM

**AASA**  
THE SCHOOL SUPERINTENDENTS ASSOCIATION



## GETTING STARTED

A compelling rationale for district and school leaders to build partnerships and consensus.

**“Policy makers are searching for ways to deal with the erosion of middle-class jobs and the highest rates of youth joblessness since the 1950s. For decades, the transition from school to career has been challenging for youth.”**

**ROBERT L. LERMAN**  
EMERITUS PROFESSOR  
OF ECONOMICS AT  
AMERICAN UNIVERSITY

Youth apprenticeships combine classroom instruction and on-the-job professional experiences, allowing students (typically during their 11th and 12th-grade high school years) to pursue a career pathway, earn a salary while being mentored by experienced mentors and coaches, and learn in an experience-based and “blended” setting. Successful apprenticeships combine formal classwork with highly structured workplace experiences leading to potential career options in the chosen pathway.

In comparison to other more short-term work-study options such as internships and shadowing experiences, youth apprenticeships allow participating students to remain with a business, corporation, or other organization for up to two years and beyond. Many youth apprenticeship completers go on to enjoy productive careers in the organization in which they initially studied and worked. These programs also offer opportunities for post-secondary education credits through participating community colleges and universities.

### Benefits of Successful Youth Apprenticeship Programs

For educators interested in developing an apprenticeship program in their district, it is useful to consider key requirements established by the U.S. Department of Labor:

**Participating Students:** Successful youth apprentices earn a certified portable credential(s) accepted by industries and employers throughout the United States. There are multiple benefits of youth apprenticeships for students, include hands-on career training; improved skills and competencies related to success in both career and post-secondary settings; career decision-making and preparation focusing on career growth areas; competitive salaries; and freedom from tuition debt.

**U.S. Workforce:** Youth apprenticeships ensure that career development programs align with state and local workforce system needs. They result in workers who are highly skilled and productive with access to stable careers. Currently, the U.S. Department of Labor emphasizes a range of high-yield,

high-needs employment areas aligned with youth apprenticeships, including Advanced Manufacturing, Construction, Energy, Finance and Business, Healthcare, Hospitality, Information Technology, Telecommunications, and Transportation.

**Federal, State, and Local Governments:** Local regions and jurisdictions benefit significantly from successful youth apprenticeships, including sustained technical assistance and support to improve the workforce; credentialing that reinforces national industry-recognized standards; tax credits available in many states for employers participating in apprenticeships meeting federal guidelines and standards; and access to federal resources, including funding from many federal programs specifically designed to sustain and scale apprenticeships in high-yield, high-needs employment areas.

## The Context of Youth Apprenticeship Programs in the United States

**By 2020 the United States will be short five million workers with the necessary technical certificates and credentials** to succeed in high-growth, high-demand industries, according to the Georgetown University Center on Education and the Workforce.

**The impact of youth apprenticeships is already evident in many European countries,** including Austria, Denmark, Germany, Switzerland, and England. Students there begin their apprenticeships during their late high school years and over a three-year period, combine work-based learning with classroom study in public career schools.

**Only 0.3 percent of the labor force in the United States has participated in some form of apprenticeship,** unlike many countries (e.g., Germany, where 3.7 to 3.9 percent of the total labor force participate in apprenticeships),

**Youth apprenticeships offer a powerful alternative for students hungry for engagement, authenticity, purpose, and a sense of self-actualization** in addition to clear benefits to employers, the workforce, and the economy, as cited in The Abell Report (April 2015), “Apprenticeship combines classroom-based vocational education, structured workplace learning, and paid work and production to help youth master an occupation.”

**“Policy makers are searching for ways to deal with the erosion of middle-class jobs and the highest rates of youth joblessness since the 1950s...”**For decades, the transition from school to career has been challenging for youth...” according to Robert L. Lerman (Emeritus Professor of Economics at American University) in his study *Apprenticeships: Helping Youth Develop the Skills Needed by Today’s Employers*. “Apprenticeships are distinctive in meeting both the supply side and the demand side of the labor market. When robust apprenticeship systems are in place, youth learn employability skills for rewarding careers, youth unemployment is kept low, the state’s productivity is kept high, and employers are ensured a workforce with strong technical and employability skills.”

**Many youth apprenticeship completers go on to enjoy productive careers in the organization in which they initially studied and worked.**



Recommendations for beginning a youth apprenticeship program. Advice from the Department of Labor, and an approach to building partnerships and consensus.

**“When I think about Groninger investing in apprenticeships, really it’s the kind of thing where we can’t afford not to do it. One of the problems we have in the United States is the skills gap.”**

**THOMAS RAY**  
GRONINGER USA

### **Building consensus among your stakeholders about the guiding principles for an effective apprenticeship.**

The United States Department of Labor identifies five major guiding principles for ensuring effective apprenticeship programs:

#### **1. Active Involvement of Business, Including Apprenticeship Councils, Industry Associations, and Other Partnerships Sharing Administrative Tasks Related to Maintaining the Apprenticeship:**

A key component of a youth apprenticeship program’s success is the active and sustained involvement of business/corporate participants. These companies will provide a combination of supports for the program, including sustained engagement on the part of their leadership, on-site professional learning, careful and sustained mentoring for apprentices, and active involvement in providing updates about workplace needs and requirements.

#### **2. Structured On-the-Job Training, Including Support and Coaching from Experienced Mentors On-Site:**

The commitment of corporate, business, advisory board, and post-secondary partners is a powerful component of youth apprenticeship program success. A majority of students participating in youth apprenticeships acknowledge that on-site mentors become some of their favorite teachers. They often feel a sense of renewed independence, efficacy, and maturation as a result of the coaching, feedback, and respect they receive on-site.

#### **3. Classroom-Based Academic Instruction Related to the Technical and Academic Competencies Required for the Job:**

The unique course requirements associated with career pathways related to youth apprenticeships reinforce students’ acquisition of the technical and academic competencies required for apprentices’ chosen career field and pathway. The curriculum sequence and its implementation should be closely aligned with industry standards and the technical knowledge and skills required for success on the job.

At the same time, classrooms must emphasize a range of 21<sup>st</sup> century workplace competencies (parallel to many states’ Portrait of the Graduate profiles), including

technical skills, communication skills (written and oral), presentation skills, critical and analytical reasoning, creative expression, and soft skills (e.g., interpersonal relations and communication, contributing to team operations, investigation and research, and technology competency).

#### **4. Rewards for Acquisition of Apprenticeship Skills Gains, Including Wages, as Students Begin Work and Pay Increases as They Meet Identified Performance Benchmarks:**

Students, parents, school leaders, and corporations/businesses involved in youth apprenticeship programs strongly assert that these programs/apprenticeships offer unique economic opportunities and the potential for upward mobility for many participating students. In addition to wages earned throughout the apprenticeship experience, youth apprentices enjoy growing wages frequently awarded as they meet or surpass identified performance criteria and related benchmarks. Even more importantly, students and their parents frequently praise the value of the apprenticeship experience and its expansion of students' career awareness, interests, technical skills, and capacity for entering the workforce at a much higher level of the career ladder than they might have with only a high school diploma or college degree.

#### **5. Nationally Recognized Credentialing That Is Portable and Provides Certification That the Apprentice Is Fully Qualified for a Position in the Chosen Industry or Career Field:**

Increasingly, employers (especially those in high-tech, high-demand fields) are only hiring individuals with certified technical knowledge and skills required for available positions. Certifications and micro-credentialing are a powerful and growing phenomenon in the workplace—and will be increasingly important for workers as the 21<sup>st</sup> century evolves and workplace expectations increase. This component is essential to successful youth apprenticeship program design and development.

## **Engage the right stakeholder groups and individuals.**

**Encourage potential stakeholder corporations to consider: How might a “grow-your-own” approach help us to ensure a steady labor supply of highly qualified and well-educated workers capable of fulfilling the evolving requirements of key industries?**

As Thomas Ray of Groninger USA emphasized in a recent interview: “When I think about Groninger investing in apprenticeships, really it’s the kind of thing where we can’t afford not to do it. One of the problems we have in the United States is the skills gap. In the Charlotte area alone there are about 6,000 jobs that can’t be filled because we don’t have people with the training to fill those positions. If you train someone coming in off the street, it’s just as expensive to do it that way, but if we do it with apprenticeships, we can bring those people up in the culture of the company and train them in the way that we want them to be trained.”

**When school and district leaders begin to consider the development of apprenticeship programs, it is critical that they involve business, corporate, financial and other sectors within their community or region.**

Early dialogues and sustained partnership will provide invaluable input concerning industry needs, hiring requirements, educational background and skills expected of entering workers, and projections for future growth.

**Similarly, cross-institutional partnerships should include immediate participation by potential college and university partners within the area.**

Successful apprentices should be able to complete their multi-year experience with solid work credentials, related certifications, and academic credit—resulting in thousands of dollars of savings in college tuition as well as significant advancement for students into their chosen career pathway.

**An effective youth apprenticeship program requires sustained and increasing budget allocations to address the need to acquire updated technologies, pay for sustained professional development, fund staffing for both instructors and program coordinators, and related needs.**

**An essential factor in successful youth apprenticeship programs is the power and necessity of sustained, clear, and collaborative communication and outreach.**

## **Begin to build an apprenticeship ecosystem: important structures, processes, best practices, and relationships.**

It is important to revisit with all stakeholders and stakeholder groups the concept of building a “youth apprenticeship ecosystem.” Any effective apprenticeship requires careful attention to: (a) workplace needs, (b) building a clear rationale for stakeholder groups, (c) developing and implementing a coherent and aligned curriculum reflective of industry standards, and (d) ensuring that on-site apprenticeship experiences are carefully monitored and supported by experienced mentors and organizational leaders.

### **The following are key components of a “youth apprenticeship ecosystem” for school and district leaders to share with business/corporate representatives interested in beginning a youth apprenticeship program:**

**School Infrastructure:** Successful youth apprenticeships require appropriate funding, staffing, business and corporate site sponsorships, professional learning, and administrative oversight. Perhaps most significantly, the school infrastructure must be equipped to ensure a sustained commitment to strategic planning to improve each apprenticeship program and ensure that all students succeed.

**Purposeful Project Management:** Successful youth apprenticeship programs have clear annual program performance targets aligned with the school and district’s strategic plan and the needs of the sponsor business/corporation. This project management approach includes clear monthly performance targets for each program, clear product and performance outcomes, identified individuals and groups responsible for leading initiatives, sustainable communication structures and processes, and accountability for reporting on achievement of project benchmark criteria—as well as program modifications if data suggests a need for improvement or enhancement of current operations and structures.

### **Ensuring Sustainability of Funding Sources:**

An effective youth apprenticeship program requires sustained and increasing budget allocations to address the need to acquire updated technologies, pay for sustained professional development, fund staffing for both instructors and program coordinators, and related needs. School districts exploring apprenticeships for the first time should also consider the range of federal and state grant opportunities available in this field, especially since many of them focus on start-up and scalability initiatives related to high-yield, high-needs occupational areas.

### **Business and Corporate Support Systems:**

Businesses and corporations can use their participation in apprenticeship sponsorship to increase the effectiveness of their workforce—and, in turn, increase their organization’s productivity. Youth apprenticeships will expand students’ technical skills, prepare them for an increasingly challenging and technical workplace, and ensure that local and regional hiring needs are being met. In addition to the clear benefits to students and their parents/guardians of the apprenticeship experience, there is a very powerful and clear benefit to local and state economies.

**Communication and Outreach:** An essential factor in successful youth apprenticeship programs is the power and necessity of sustained, clear, and collaborative communication and outreach. Learners and parents must be introduced very early in students’ education to the need for career awareness and career development. Parents especially need support in overcoming initial apprehensions about the apprenticeship experience, including questions such as: Is it right for my child?; Will it prevent him or her from going to college?; Isn’t a college degree a requirement today for career entry and success? There is also a need for additional focus on professional development for teachers, administrators, and counselors on the value of the apprenticeship experience—and the importance of informing parents and students about that value early in their education.

**Developing, Implementing, and Updating a Coherent Curriculum:** An effective youth apprenticeship curriculum must include hands-on and personalized coursework aligned with district, state, and federal standards. It should reinforce a high degree of alignment with requirements of the specific career pathway around which the apprenticeship is built. The written and taught curriculum must also be designed to prepare students for required credentialing (e.g., OSHA’s 10-hour industry requirement, career certification and credentialing requirements, etc.). Additionally, high school courses must be aligned with both industry-credentialing requirements and the preparation of students for success in post-secondary education related to their field of professional study.

**Ongoing Oversight and Needs Assessment:** All successful youth apprenticeship programs demonstrate a clear staff and business/ corporate sponsor commitment to meaningful, purposeful, and sustained oversight and needs assessment related to the achievement of

students and monitoring of their progress. A successful apprenticeship requires flexibility and awareness of the need to change as technical/ technological advances, performance standards, and workplace protocols evolve and transform themselves. Assessment must be aligned with industry standards, organizational requirements, and national standards that are rigorous, challenging, and current.

**Meaningful Program Evaluation:** Successful youth apprenticeships require careful project management involving an ongoing commitment to oversight and needs assessment with a purposeful and sustained approach to program evaluation. Program evaluation is especially critical in ensuring that students in the program are successful—and receive timely intervention and support when they experience challenges or require extra coaching and mentoring. The performance criteria for every youth apprenticeship program must be clearly articulated with results analyzed regularly as part of the school and district’s approach to strategic planning.



## OUTREACH STRATEGIES

Ideas and suggestions for engaging industry partners. The keys to success are clear goals and targeted participation.

### **Engage Business, Corporate, and Post-Secondary Educators in Exploring Strategies for Helping Students Acquire and Refine Key Workplace Readiness Skills**

**Build consensus** that effective registered youth apprenticeships help students to build and sustain workplace readiness skills while preparing them for a range of other post-secondary options.

**Revisit the importance of students' technical proficiency and skills**, including acquiring, integrating, and applying industry-based performance standards in authentic projects and professional tasks.

**Begin to establish universal expectations about what constitutes a successful 21st century employee**, what many refer to as “soft skills.” Explore with identified local business and corporate leaders their perceptions about the importance of entering workers' ability to demonstrate:

- ▶ **Communication Skills (Including Written, Oral, Multi-Media)**

- ▶ **Collaboration and Team Participation Skills**
- ▶ **Self-Regulation and Self-Management Skills** (e.g., Goal Setting, Time Management, Understanding of Task Requirements, Emotional Control)
- ▶ **Higher-Order Reasoning** (e.g., Application, Analysis, Interpretation, Synthesis, Evaluation, Creative Expression)
- ▶ **Use of Technology, Including Computer Applications and Data Analysis**

### **Create an Industry Review Board Comprised of Education and Business Leaders to Assess Industry Needs Within the Region and State**

**Appoint a leadership team** within the district to engage in outreach and data analysis related to economic development and business/corporate employment needs within the district, region, and state.

**Engage in outreach to business, corporate, and community leaders** associated with identified economic priorities and trends to become members of the school district's industry review board.



**If possible, engage local community college and university representatives** as members of the industry review board, including potential areas for post-secondary credit opportunities for participating apprentices.

**Provide members of this industry review board with an initial orientation** to the existing Career and Technical Education (CTE) services and programs offered by the district.

**Ask members of the industry review board to provide their feedback** and observations about the economic needs—including position requirements—related to their specific business or corporation: What are the skills and knowledge requirements of entering workers?; and what challenges are these leaders facing in filling high-tech, high-skilled positions within their respective areas?

**Review with members of the industry review board existing or proposed components** of youth apprenticeship programs that may exist or could exist within the district (including Department of Labor requirements, laws, and policies).

## **Ensure that Education and Business Leaders Share a Common Understanding of the Value, Vision, Long-Range Goals, and Benefits to Students of Youth Apprenticeship Programs**

**Build consensus** to ensure that the vision and mission for a proposed or existing youth apprenticeship program are clear and accepted by members of the industry review board.

**Share with business, corporate, and post-secondary leaders sample profiles and case studies** of successful registered youth apprenticeship programs (including the importance of helping make learning come alive for students—and the power of aligning classroom and on-the-job learning experiences).

**Finalize long-range goals** for the youth apprenticeship program(s), including policies and protocols for participating organizations (allowing for variations in on-site design resulting from the business or corporation's focus and apprenticeship model requirements).

**Use case study and research-based evidence** to help leaders understand that effective apprenticeships are mutually beneficial for students, their parents, and the community/region.

**Articulate the economic benefits to students** (building significant career preparation skills and aptitudes while relieving them of tuition loan indebtedness) and to the participating businesses/corporations sponsoring apprenticeships (ensuring that they expand the pool of local and available workers capable of prospering in a demanding and technology-driven workplace).

## **Promote a Spirit of Cross-Institutional Collaboration and Ongoing Quality Control**

**Engage leaders in discussions** about how they can support the kinds of standards-driven quality control essential for program effectiveness and student academic, professional, and social-emotional growth.

**Encourage leaders to share their experiences** with team-based models of leadership involving shared decision-making, problem-solving, and creative innovation: How can we work collaboratively to ensure that our student apprentices become an integral and positive addition to our workforce?

**Create profiles of effective on-site mentors and coaches**, striving to ensure that all youth apprentices have site-based mentors with extensive technical experience and knowledge as well as coaching competencies: How will our on-site mentors function as coaches, support systems, and advisors to apprentices, many of whom are experiencing a professional setting for the first time?

**How can we work collaboratively to ensure that our student apprentices become an integral and positive addition to our workforce?**

**Engage business and corporate leaders in discussions of quality control** essential at the district, school, and apprenticeship site levels: How can the team ensure that industry standards are carefully integrated into the school-based curriculum, with project-based learning reinforcing students' development of skills and competencies necessary for on-site success?

**Explore with industry review board members their experiences with a Total Quality Management approach:** How can we ensure that our youth apprenticeship program is designed to promote effective project management principles and strategies (e.g., clearly articulated roles, deadlines, deliverables, and performance criteria)?

### **Strive to Ensure that All Youth Apprenticeship Leaders are Purposeful and Effective Change Agents:**

**Ensure that members of the industry review board are aligned** in terms of their strategic planning goals and processes.

**Work collaboratively** to identify youth apprenticeship sites committed to updating their approaches, programs, and practices as industry standards change. These sites also expand to encompass technological changes to ensure organizational growth.

**Reinforce the idea that change is an inevitable part of effective youth apprenticeship programs:** Leaders must see into the future and articulate their vision for where the district, school, and business are heading.

**As change agents, youth apprenticeship leaders are clear that they must continually engage and involve all stakeholder groups**, keeping them informed about changing standards, expectations, and structural modifications needed for program improvement, scalability, and sustainability.

### **Engage Leaders in Developing and Supporting a Youth Apprenticeship Ecosystem Aligning School-Based and On-Site Programs and Practices**

**Reinforce** with business and corporate leaders that successful youth apprenticeship programs represent an interdependent set of human resources, support structures, policies and practices, and legal requirements.

**Explore** with these leaders key strategies and processes for establishing, sustaining, and “scaling up” the proposed or existing youth apprenticeship program: How will we fund the program(s)?; How will we sustain the program(s)?; How will we determine if our program(s) should be expanded and made available to an increasing pool of students?

**Continue** to engage post-secondary, business, and corporate leaders in issues related to program evaluation and oversight, including responding to essential questions such as: How will we ensure that our youth apprenticeship program(s) are effective?; How will we make certain that they change and evolve as our businesses and industries change, especially in light of new and emerging technologies?

## CASE STUDY VIDEO LINKS



**AASA Cherry Creek Youth Apprenticeships**

**AASA Charlotte Youth Apprenticeships**

**AASA Denver Youth Apprenticeships**

**AASA Highline Youth Apprenticeships**

**AASA Kentucky Youth Apprenticeships**