

Creating a New Pathway to Opportunity:

INDIANA'S JOURNEY TO BUILD A MODERN YOUTH APPRENTICESHIP SYSTEM

Historically, the career path for young Americans was straightforward: work hard in school, earn a high school diploma, and transition to college or directly into a career. For years, this system meant most students who completed high school could support their families, and students who graduated from college could land securely in the middle class. Yet, over the past few decades, the connection between education, workforce

demand and economic mobility has eroded. The jobs of today and tomorrow will demand more than just a high school diploma. While some will require a traditional college degree, many will need something between a high school diploma and a college degree. To meet this demand, we must create new pathways that provide the types of education and training employers and our economy need.

THE PROBLEM: INDIANA'S WORKFORCE CRISIS

Indiana's landscape has changed dramatically. A century ago, agriculture and manufacturing were the state's primary economic drivers – fields that at the time did not require higher education for most positions. While agriculture and advanced manufacturing continue to play critical roles in Indiana's economy, the emergence of technology and other key sectors have elevated the need for education and training beyond high school.

Indiana has long grappled with a shortage of workforce-ready workers. Data from 2014 shows that just **33% of Hoosiers** aged 25 and older held an associate degree or higher, lagging behind the national average. While that number rose to 39% in 2022, it still lags the national average by five percentage points. Factors such as an aging population, a labor force participation rate of **80% for adults aged 25 to 64**, and **evolving labor market needs due in part to the impact of artificial intelligence** exacerbate the situation.

Looking ahead, the gap between workforce readiness and employer demand is poised to widen. By 2031, an estimated **72% of jobs** will require education and training beyond high school, and Indiana is not keeping pace. College enrollment has dropped **from 65% in 2015** to 53% in 2021. Meanwhile college completion rates are persistently low, with **only 47% of students** graduating on time and 67% graduating with extended time.

These numbers paint an alarming picture. Because just over half of Indiana's high school graduates go on to college, and only about two-thirds of students who attend an Indiana public college complete a program within six years, a majority of Hoosier students enter the labor market without a degree or credential – potentially burdened by student loans. These students require a pathway offering the skills and knowledge necessary to secure a good job.

Indiana is at a turning point. The state must take bold action in the next decade to reform its education and workforce development system to deliver better outcomes for students and the adult workforce, provide more skilled talent for employers, and ensure Indiana's economy continues to thrive.

APPRENTICESHIP: AN OVERVIEW

An apprenticeship system is a proven, employer-led education and workforce model that combines classroom learning with on-the-job training and paid work. In the U.S., there are **roughly 800,000** Registered Apprentices in the national system administered by the U.S. Department of Labor. Historically, these apprenticeships have been in construction and the skilled trades, with **over half** of Registered Apprentices falling between the ages of 25 to 54. Typically, these programs operate independently of K-12 and higher education systems and are geared toward specific occupations.

There's no question these apprenticeship programs offer significant value. However, modern youth apprenticeships – which span nearly every industry – provide an opportunity to build an intentional education to workforce pipeline starting in high school.

MODERN YOUTH APPRENTICESHIP: AN INNOVATIVE SOLUTION

Modern youth apprenticeships begin while students are in the 11th grade and average three years in length. Students complete their apprenticeship experience having earned a high school diploma, college credit and an industry credential – all while earning a paycheck and gaining work experience. Modern youth apprenticeships span many of today's most in-demand fields, including insurance, accounting, life sciences, health care, teacher preparation, and advanced manufacturing, among other sectors.

The value of youth apprenticeship lies in the fact that it is both employer-led and student-focused. These apprenticeship systems are designed to meet the needs of students, offering access to affordable postsecondary education, opportunities to earn valuable work experience and wages, and the benefits of mentorship and networking – all within a supportive, employer-driven structure.

In Indiana, modern youth apprenticeship is modeled after the well-established system in Switzerland, called the [dual vocational education and training, or VET](#), system, that integrates classroom learning, industry training and paid, on-the-job learning.

Switzerland, a constitutional democracy with an **86%** labor force participation rate, reformed its education and workforce system over a period of approximately 30 years. Today, about 30% of Swiss high school students graduate from college with a bachelor's, master's or doctorate degree. The other 70% participate in a three- or four-year apprenticeship across about 250 occupations spanning the entire labor market, from life sciences to advanced manufacturing to banking. Apprenticeships start in 10th grade, with students completing them by the time they're 18 or 19. Following their apprenticeship, students have the option to pursue additional education or training, depending upon their career aspirations, though it is not required to qualify for a good job.

The Swiss system operates with [one mission and three partners](#): employers, educators and government at national, regional and local levels. Each partner plays an equal and balanced role in the system.

EARLY EFFORTS: 2016-2018

In 2016, the National Conference of State Legislatures released their landmark study, [No Time to Lose: How to Build a World-Class Education System State by State](#), which compares the U.S. with other nations' systems for preparing

students for employment. In it, they describe the Swiss youth apprenticeship system, referring to it as the world's "gold standard" for educating young people while also meeting labor market needs. At the time, Indiana was facing a mounting workforce crisis. This report spurred a group of Hoosier stakeholders to investigate youth apprenticeship further.

In 2017, the [Richard M. Fairbanks Foundation](#) awarded a grant to the NCSL Foundation to convene policymakers, educators, state agency staff and intermediaries to learn more about NCSL's recommendations. Throughout the year, NCSL held several convenings with these stakeholders to discuss a variety of topics and ideas in the report.

In 2018, a delegation of Indiana leaders convened by [Horizon Education Alliance](#) traveled to Germany and Switzerland to learn about each country's approach to dual VET, which differ somewhat. During the same year, two trips to Denver also occurred. [The Indianapolis Chamber of Commerce](#) held its annual Leadership Exchange (LEX) trip in Denver where delegates learned about [CareerWise Colorado's](#) youth apprenticeship efforts. Separately, leaders from state government and local communities visited Denver through separate funding sources to learn more about CareerWise Colorado. CareerWise Colorado was founded in 2016 and adapted their youth apprenticeship efforts from the Swiss model. To date, they have placed more than 1,400 apprentices with over 120 employers.

The NCSL work funded by the Fairbanks Foundation culminated in a December 2018 conference in Indianapolis. More than 300 education, business and workforce development leaders gathered to discuss how Indiana could expand its work-based learning opportunities. Two of the conference speakers, Noel Ginsburg, founder and CEO of CareerWise Colorado, and Brent Parton, who at the time was leading

New America's new **Partnership to Advance Youth Apprenticeship** initiative, generated strong interest from attendees around youth apprenticeship.

During this time, work-based learning was a key issue for Indiana, with two factors raising the profile of youth apprenticeship. First, in 2018, the Indiana General Assembly adopted **Graduation Pathways**, which require every high school student in Indiana to participate in some form of work-based learning to graduate. This new requirement went into effect with the high school graduating class of 2023. Second, the **Governor's Workforce Cabinet** was formed in the same year to focus on ensuring a healthy education-to-workforce pipeline for employers and individuals alike.

GAINING MOMENTUM: 2019-2022

The work from 2016 to 2018 proved there was interest in bringing modern youth apprenticeship to Indiana. In the next few years, a core planning team would begin to solidify plans.

In February 2019, the Fairbanks Foundation brought CareerWise Colorado leaders to Indiana to meet with local education and business leaders to consider how to design Indiana's own modern youth apprenticeship initiative.

Early that same year, PAYA announced a national request for proposals for high-quality youth apprenticeship programs and received more than 200 applications – including seven from communities in Indiana. Recognizing the growing interest in modern youth apprenticeship, NCSL, with the support of the Fairbanks Foundation's grant, invited PAYA's Brent Parton to brief Indiana's House and Senate education committees on youth apprenticeship efforts in other states.

The high levels of interest in PAYA's efforts prompted the Fairbanks Foundation to award PAYA a grant to facilitate a one-year youth apprenticeship planning process in Indiana,

which included representatives from more than 15 organizations:

- Ascend Indiana
- Conexus Indiana
- Eastern Indiana Regional Planning Commission
- EmployIndy
- Governor's Workforce Cabinet
- Horizon Education Alliance
- Indy Chamber
- Indiana Commission for Higher Education
- Indiana Department of Education
- Indiana Department of Workforce Development – Office of Work-Based Learning & Apprenticeship
- Indiana Legislature: Chairs of the House and Senate Education and Workforce Committees
- Ivy Tech Community College – Statewide
- Ivy Tech Community College – Kokomo
- Regional Opportunities Initiatives (ROI)
- TechPoint
- Vincennes University
- Work and Learn Indiana (formerly Indiana INTERNnet)

Representatives from these organizations regularly convened on three key topics:

- Exploring an intermediary strategy for Indiana that capitalizes on the state's existing efforts while also building new capacity to support employers and schools.
- Outlining a clear piloting and learning strategy to build on the momentum in Indiana.
- Identifying opportunities for systems alignment across business, education and workforce to support scalability and sustainability.

The planning process was implemented over three phases. The first phase began with stakeholder

education about two key topics: the work happening nationally and statewide to provide work-based learning opportunities to high school students and how these experiences align with or differ from youth apprenticeships.

The second phase, learning and benchmarking, involved exploring youth apprenticeship models in three other states – Colorado, South Carolina and Washington State – to understand different approaches and identify the model that best fit Indiana’s ecosystem. The Indiana planning team ultimately decided that the CareerWise Colorado model aligned best with Indiana’s ecosystem and interests. Additionally, the planning team sent a 9-person group to the **CEMETS** Summer Institute in Zurich, which is a global immersive learning experience about the Swiss apprenticeship system. CEMETS, or the Center on the Economics and Management of Education and Training Systems, is housed at ETH Zurich and led by Ursula Renold, Ph.D., and Katie Caves, Ph.D.

In the third phase, priority development, the team defined Indiana’s initial youth apprenticeship strategy. Based on conversations and work done during CEMETS, the team decided to focus on how to implement regional pilot sites across Indiana and how to ensure systems alignment. Ursula Renold, Chair of Education Systems with CEMETS, kicked-off this phase with a visit to Indianapolis in October 2019. While here, Renold was also the keynote speaker at the Economic Club of Indiana luncheon that same month.

The Indiana planning team decided on a two-pronged approach to implement a youth apprenticeship system: a statewide Community of Practice initiative and the implementation of pilot programs in regions across the state. To fund this work, the Fairbanks Foundation has awarded a total of \$9 million to the Indianapolis pilot program and the COP since November 2019. Grant funding has enabled ongoing technical support from CEMETS and CareerWise Colorado.

The COP, which was designed with PAYA’s support and is led by **Ascend Indiana**, launched in March 2020, just days before a global pandemic was declared. Despite the impact of COVID-19, the COP continues to operate and is designed to enable collaboration and discussions about best practices, barriers to scaling youth apprenticeship programs and more. To date, the COP has 125 members across almost 60 organizations statewide. It serves as a critical connection point for practitioners, intermediaries, partners, policymakers and state leaders on the topic of youth apprenticeships.

In 2019, the first Indiana pilot site launched its first cohort of apprentices in Elkhart County through the work of **CareerWise Elkhart County**. To date, they have placed over 80 students in youth apprenticeships. In October 2020, Indiana launched its second pilot program, called **Modern Apprenticeship Program**, or MAP, in Marion County through the joint efforts of Ascend Indiana and **EmployIndy**. In 2021, MAP announced its inaugural group of apprentices. In 2023, EmployIndy took over full operation of the Indianapolis pilot program, which has served more than 120 youth apprentices to date.

In fall 2021, Ascend Indiana, in partnership with **Bloomberg Philanthropies** and PAYA, awarded planning grants to three additional programs to develop youth apprenticeship pilot sites: **Regional Opportunity Initiatives**, **OptIN**/Evansville Vanderburgh School Corporation Foundation, and **The Pursuit Institute** (formerly the Hamilton County Center for Career Achievement). These sites have raised additional private and public funding to support implementation efforts.

MOVING INTO THE FUTURE: 2023-2030

By the end of 2022, youth apprenticeship started to gain traction in Indiana. 2023 and 2024 saw the core focus shift to developing and scaling a statewide system, with two critical initiatives driving the movement forward.

First, in late 2023, Ascend Indiana, in partnership with the [Walton Family Foundation](#) and PAYA, announced a second round of grants to new organizations in Indiana to design youth apprenticeship pilots. In July 2024, Ascend Indiana announced it awarded follow-up grants to the following four sites to launch their youth apprenticeship pilots: [Eastern Indiana Works](#) and [East Central Education Service Center](#), [Southern Indiana Education Center](#), [Southern Indiana Works](#), and [West Central Indiana Career and Technical Education Center](#). With these added sites, Indiana has a total of 7 pilot sites and 2 in the planning phase, covering 43 counties.

Second, in June 2023, 14 Indiana leaders attended the CEMETS Summer Institute. On this trip, the Indiana team agreed a major barrier for Indiana is the lack of a governing and operating body that spans business, education, nonprofit and government and is designed to withstand leadership turnover. Following the Institute, the group met in summer 2023 to draft a vision statement, key success factors and short-term priorities for Indiana's education and workforce development system. The intention was to share the vision and priorities at the planned September trip to Zurich with the Indy Chamber, described in more detail below.

VISION

- By 2034, Indiana's education-to-workforce system will ensure every student and adult learner has access to high-quality education and training options, enabling all Hoosiers to discover their passions, reach their fullest potential, and meaningfully contribute to the economic and civic vitality of their communities.
- As a result, Indiana will become a Top 10 destination for employers seeking to expand existing businesses and entrepreneurs working to launch new businesses.

KEY SUCCESS FACTORS

- Indiana's education-to-workforce system will be jointly led by educators and employers, with clear roles and responsibilities for each.
- Employers will realize a positive return on investment from their talent development investments, enabling long-term engagement through standard business cycles.
- No education or training option will lead to a dead-end.
- Every student and adult learner will have access to more than one high-quality education or training option.

SHORT-TERM PRIORITIES

- Establish a structure to oversee development of a statewide youth apprenticeship system.
- Identify a group of employers within three or four industry sectors with significant talent shortages and work with them to scale youth apprenticeship in these sectors.
- Seek the support of high schools to address school-level barriers to scaling youth apprenticeship.
- Seek the support of higher education institutions to help Indiana build a permeable system for students who choose to complete an apprenticeship.
- Identify policies that inhibit scaling youth apprenticeship and recommend solutions.
- Develop and launch a marketing and communications strategy to encourage participation in youth apprenticeship.

In September 2023, the Indy Chamber's annual Leadership Exchange took place in Switzerland, with a goal to raise awareness about the Swiss youth apprenticeship system to inform the pilot programs already underway in Indiana. LEX delegates included approximately 100 city and state elected and appointed officials as well as business, higher education and philanthropic leaders from Central Indiana.

During LEX, the Fairbanks Foundation announced a grant to CEMETS at ETH Zurich to support Indiana's efforts to develop a statewide modern youth apprenticeship system through a structured 10-month experience called CEMETS iLab Indiana. The iLab was designed to provide leaders across business, education, nonprofit and government with technical assistance from CEMETS at ETH Zurich to develop a plan to create a scalable system available statewide. Staffing for the iLab was provided by Ascend Indiana and the Indy Chamber, with oversight from the Fairbanks Foundation.

The kickoff meeting for the iLab took place Dec. 15, 2023, with over 100 individuals attending. By January 2024, six **committees** formed, with each meeting regularly throughout 2024: Governing, High School, Higher Education, Industry, Policy and Communications. At the start of the iLab, Katie Caves, CEMETS Director, held special content sessions to dig into specific topics and roles for each committee.

During the 10-month iLab, the committees focused on the following key topics:

- The Governing Committee was tasked with identifying, and overseeing the transition to, longer-term governing and operational structures for a statewide youth apprenticeship system; identifying initial industries of focus for scaling youth apprenticeship; and establishing a goal for the number of youth apprentices Indiana employers will hire over the next decade.
- The High School Committee was tasked with enabling increased student engagement in youth apprenticeship experiences by recommending adjustments to the student high school schedule and transportation solutions, and by recommending how career exploration activities can be incorporated into the middle and high school schedules.
- The Higher Education Committee was tasked with developing next steps for creating

applied and professional degree pathways in Indiana, and for easy transitions between academic, applied and professional degree pathways.

- The Industry Committee was tasked with recommending next steps for how businesses can lead the development of occupational standards and youth apprenticeship curricula within priority industry groups, and for how businesses can support career exploration activities in both middle and high school.
- The Policy Committee was tasked with identifying limiting and enabling policies for scaling youth apprenticeship, focusing on barriers to student and employer participation, funding, and the transition from an apprenticeship to professional, applied or academic degree pathways.
- The Communications Committee was tasked with determining the best way to talk about youth apprenticeship to employers, students and families, and identifying tactics for disseminating the final iLab plan.

In February, March, and June 2024, members of the Industry Committee traveled to Zurich to experience the Swiss youth apprenticeship system. The visits included discussions with area employers, training center tours, and tours of industry associations charged with identifying occupations and creating curriculum for youth apprenticeships.

On April 29-30, 2024, the entire iLab delegation gathered to present their final recommendations, which were combined to form the basis of the iLab's strategic plan. Following that two-day meeting, the Governing Committee and Committee co-chairs met for the remainder of the week to discuss next steps.

In June 2024, select members of the iLab attended the CEMETS Summer Institute, where they presented the iLab's priorities for feedback.

In September 2024, CEMETS iLab Indiana released its **strategic plan**, which identified the following four immediate priorities to scale high-quality programs combining youth apprenticeship with related academic instruction:

- Priority one: Establish talent associations.
- Priority two: Establish mechanisms to progress up, across pathways.
- Priority three: Design a labor market-aligned career advising system.
- Priority four: Define clear roles and responsibilities.

Through the remainder of 2024 and the first half of 2025, the nearly 200 iLab members will work with the organizations identified as the leaders of the talent associations to recruit employers and identify the occupations for the first round of apprenticeships. iLab members will also begin to implement the other priorities identified in the strategic plan. If the plan is implemented as expected, the new system will welcome students in at least one occupation starting with the 2025-2026 school year.