INDIANA'S WORKFORCE TRANSFORMATION: Understanding the Need for Upskilling and Reskilling in a Changing Economy

Ivy Tech Community College
TEConomy Partners

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IVY TECH COMMUNITY COLLEGE

TECONOMY PARTNERS LLC

EXECUTIVE SUMMARY

Indiana faces a significant workforce crisis, with a declining labor participation rate and a shortage of skilled talent, especially for small- and mid-sized businesses. The state's demographic challenges, including a shrinking working-age population, exacerbate this issue. As talent becomes critical for business growth, Indiana is shifting its focus from business recruitment to talent recruitment. Governor Braun's 2025 Freedom and Opportunity Policy Agenda underscores this need, committing to helping businesses upskill their incumbent workforce.[1]

While past and existing investments in upskilling the workforce have been successful, more must be done to meet the moment for Indiana's significant future talent and skills needs. As Indiana's workforce engine and its statewide community college system, Ivy Tech Community College has and will continue to be a key partner to employers as they respond to the realities of today's labor market and economy.

To better understand Indiana's true upskilling and reskilling needs in the industries in which these talent needs are most urgent, Ivy Tech commissioned a first-of-its-kind research study in partnership with TEConomy Partners, LLC, with funding from Lilly Endowment, Inc. The research identifies the demand for non-credit skills training in Indiana's key sectors: advanced manufacturing; business, logistics, and supply chain; healthcare; and technology. In these sectors, 69% of job openings will require high school diplomas plus additional postsecondary training. Furthermore, over the next decade, **Indiana will need to upskill or reskill over 82,000 working Hoosiers annually with non-degree credentials to meet workforce demands and ensure economic growth.**

These findings on increasing the share of workforce enrollments are consistent with national trends.[2] Additionally, non-degree credentials identified within the research align towards Lumina Foundation's Goal 2040, positioning that 75% of adults in the U.S. labor force will require college degrees and/or credentials of value leading to economic prosperity.[3]

The need for skilled workers is urgent, and Ivy Tech is positioned as the leading partner to provide necessary skills training to meet these demands. Currently, Ivy Tech annually enrolls over 25,000 learners within skills training and additional workforce-related programs, such as apprenticeships, Achieve Your Degree[4], and others. These workforce enrollments account for nearly 15% of Ivy Tech's total enrollment. Nationally, community colleges in states like North Carolina and South Carolina are also seeing non-credit training programs achieve higher rates of enrollment growth, given the ability of non-credit programs to adapt to changing skills demands from employers.[5]

To meet Indiana's demand for upskilling and reskilling through non-degree credentials at greater scale, Ivy Tech's leadership will prioritize the enhanced or realigned delivery of skills training and will continue to increase and scale its overall production of high-quality program offerings. However, Ivy Tech cannot do this work alone. A collective state effort is required, involving collaboration between educational institutions, philanthropy, employers, and state government. Ivy Tech's strategic focus on upskilling and reskilling, alongside its established training programs and partnerships, is crucial to building a resilient workforce that supports Indiana's economic future.

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[1] "Governor-Elect Mike Braun 2025 Policy Agenda," Governor-Elect Mike Braun Transition Team, December 2024, https://www.brauntransition.com/wp-content/uploads/2024/12/Braun-Policy-Agenda12324.pdf.
[2] Shalin Jyotishi, "Community Colleges and the Innovation Economy," New America, December 11, 2023, https://www.newamerica.org/education-policy/collections/community-colleges-and-the-innovation-economy/.
[3] "Goal 2040: A Stronger Nation and Brighter Future," Lumina Foundation, March 2025, https://www.luminafoundation.org/resource/lumina-foundation-strategic-plan-2025-to-2040/.
[4] Achieve Your Degree is an occupational training-aligned, employer-based tuition assistance model. To learn more, visit: https://www.ivytech.edu/programs/special-programs-for-students/achieve-your-degree-program/.
[5] Laura Ullrich, "How Community Colleges Meet the Needs of Students and Employers Via Non-Credit Programs," FedCommunities, August 21, 2024, https://fedcommunities.org/how-community-colleges-meet-needs-students-employers-via-non-credit-programs/.

PROBLEM STATEMENT

The United States faces a workforce crisis. Nationally, the workforce participation rate has been slowly declining, dropping from 67% in 2001 to 63.2% in 2019.[6] This decline is felt in Indiana. Workforce availability is the most pressing challenge facing employers in Indiana, particularly for small and mid-sized businesses, which make up a significant portion of the state's economy. Simply put, the availability of skilled and credentialed talent does not match the pace of Indiana's growing innovation and digital economies. This shortage is severely constraining employers' ability to thrive and expand. The U.S. Chamber of Commerce underscores this issue, highlighting that Indiana is grappling with a workforce shortage, with only 72 available workers for every 100 open job positions in the state.[7]

Indiana is also confronting a "demographic cliff," characterized by a shrinking working-age population, driven by lower birth rates, an increasing death rate, and insufficient federal policies to address international migration. These factors will likely result in population declines beyond 2040, with 67 of the state's 92 counties projected to experience losses by 2030.

As talent becomes the primary driver for business expansion, relocation, and investment decisions, economic developers have shifted their focus from business recruitment to talent recruitment. The shortage of skilled workers poses a significant economic cost. For example, the National Association of Manufacturers estimates that the skills gap could result in a shortage of 2.1 million jobs in the manufacturing sector alone across the United States, with a multi-trillion-dollar economic impact.

Employers in Indiana acknowledge similar challenges—in a recent survey of Indiana employers partnering with Ivy Tech, 80% saw a need to modernize, reskill, or upskill their existing workforce, with more than 60% anticipating upcoming training needs for occupational, technical, and soft skills training across manufacturing, information technology (IT), leadership, and business fields.[8]

Indiana's industry productivity and productivity growth rate are too low. Given population constraints, which limit workforce availability, Indiana is unlikely to be able to boost GDP through the traditional pathway of putting more people to work. Low productivity also hinders the ability of employers to increase wages. Rather, Indiana needs to improve productivity with the workforce it already has. Employers can no longer rely on a passive approach, waiting for talent to arrive fully skilled. A paradigm shift is underway, with employers transitioning from being "reactive consumers" of talent to "co-developers" of Hoosier talent. By engaging directly with education and workforce systems, employers can help shape training and career pathways aligned with their needs, ensuring that workers develop the competencies, skills, and credentials required for both entry-level and advancement opportunities. The urgency to upskill talent in alignment with productivity gain needs is underscored by recent research by Conexus Indiana, showing that Indiana Advanced Manufacturing & Logistics job posting data on key Industry 4.0 skills (e.g., robotics, 3D modeling, data analytics) does not outpace Midwest peers, signaling a need for upskilling.[9]

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[6] "Indiana's Employment and Labor Force Estimates," Indiana Department of Labor Force Estimates, November 2019, http://www.hoosierdata.in.gov/MonthlyBriefing/LMI-Nov2019.pdf.
[7] Makinizi Hoover, Stephanie Ferguson Melhorn, and Isabella Lucy, "Understanding Indiana's Labor Market," U.S. Chamber of Commerce, September 15, 2023, https://www.uschamber.com/workforce/understanding-indiana-labor-market?state=in.
[8] Data taken from Ivy Tech Skills Training: Findings from the Employer and Student Alumni/Learner Surveys, October 2024.
[9] "2023 Benchmarking Indiana's Advanced Manufacturing and Logistics Industries Report," Conexus Indiana, 2023, https://www.conexusindiana.com/wp-content/uploads/2023/08/2023-Benchmarking-Indianas-Advanced-Manufacturing-and-Logistics-Industries-Report-1.pdf.

This shift to skills development is exemplified in Governor Braun's 2025 Freedom and Opportunity Policy Agenda, which emphasizes the need to invest in Hoosier jobs and skills, including helping businesses to upskill their incumbent workforce. The Agenda highlights the need for Indiana's workforce training programs, including Ivy Tech, to meet the demands of high-growth industries (e.g., advanced manufacturing, biotech) and existing employers.[10]

These efforts proposed by Governor Braun will build on momentum accelerated over the last decade, with Indiana's economic development programs generating billions of dollars in capital investment, supporting the creation of thousands of high-wage jobs, and earning three major federal tech hub designations.[11] State investments in upskilling grants have proven effective and have led to wage growth for workers, showing a strong return on investment for the state. Since 2017, more than 50,000 students have used the generous support of the Indiana General Assembly to pursue more than 120 high-demand, short-term credentials at Ivy Tech through the State's Workforce Ready Grant program.

Over 35,000 students have completed these short-term credentials and certifications aligned with the state's high-wage, high-demand jobs.[12] This is a huge win for Hoosiers. The Indiana Commission for Higher Education studied the impact on earnings for those who completed one of these credentials and found a more than $6,000 annual pay increase as a result.[13]

To date, the success of efforts to upskill and reskill workers shows the value of higher education to statewide economic efforts. Training programs provided by educational institutions like Ivy Tech that are aligned to higher value, higher demand, and higher wage occupations lead to a thriving Hoosier economy.

[10] "Governor-Elect Mike Braun 2025 Policy Agenda," Governor-Elect Mike Braun Transition Team, December 2024, https://www.brauntransition.com/wp-content/uploads/2024/12/Braun-Policy-Agenda12324.pdf.
[11] "Governor-Elect Mike Braun 2025 Policy Agenda," https://www.brauntransition.com/wp-content/uploads/2024/12/Braun-Policy-Agenda12324.pdf.
[12] "2023 Workforce Program Review," Office of Fiscal and Management Analysis, October 2023, https://iga.in.gov/publications/workforce_review/2023-10-02T13-28-29.680Z-2023%20Workforce%20Evaluation%20FINAL.pdf.
[13] "Indiana Certificates Report," Indiana Commission for Higher Education, 2020, https://www.in.gov/che/files/2020_Certificates_Report_1_06_2021.pdf.

UNDERSTANDING INDIANA'S DEMAND FOR SKILLED WORKERS

The skills needed in the modern workforce are increasing demand for non-traditional modes of learning. In today's workforce landscape, upskilling for a job is no longer only about getting a bachelor's degree; instead, it includes non-traditional education models, like training programs, credentials, microcredentials, certificates, non-credit programs, and other incremental forms of skills training. **Employers are increasingly investing in skills training,** which is defined as non-credit courses that prepare learners for occupations and careers within high-demand, high-wage industry sectors related to regional, state, and national economies. Skills training program delivery methods range in length (from one/two days to multiple weeks), modality offerings (synchronous, asynchronous, and hybrid), and instructional modes (in-person, virtual, or hybrid). They are available year-round and are not restricted by the academic calendar.

The demand for upskilling and reskilling incumbent workers led Ivy Tech to request a planning grant from the Lilly Endowment to understand statewide employer demand for non-traditional skills training. **This first-of-its-kind research was designed to estimate the statewide need for employer-driven non-degree credentials, licensures, and certifications.** In addition to the research, the grant was used to identify how Ivy Tech and broader workforce ecosystems in the state might collaborate in new and meaningful ways to meet the challenge.

Ivy Tech partnered with TEConomy Partners[14], a global economic development research firm, to inform this work, resulting in a quantitative demand analysis that estimated the statewide demand for employer-driven skills training. The analysis identified: (1) which Indiana industry sectors represent high performance and areas of emerging opportunities for advancing and accelerating Indiana's economic growth; (2) the types of skills highest in demand in Indiana; and (3) the associated high-demand occupations most likely to require upskilling and reskilling via non-traditional education and training.

This research reaffirmed the key industry sectors that provide high-demand wages in Indiana, including advanced manufacturing; business, logistics, and supply chain; healthcare; and IT. It also highlighted the ways in which Indiana's economy is changing, with new industry sectors emerging as essential for advancing the state's economic growth over the next decade. These include:

- **Mobility Systems:** Digital competencies in alternative energy, battery systems, and propulsion technologies.
- **Power and Propulsion:** Digital skills needed for on-road and off-road vehicles, aircraft, and marine propulsion.
- **Life Sciences:** Skills ranging from food processing to biopharmaceuticals and agriscience.
- **Insurance and Insurance Innovations:** High-skilled labor in areas disrupted by Al and automation, such as health insurance and mutual insurance companies.
- **Other Emerging Sectors:** The Indiana Economic Development Corporation (IEDC) has identified the Hydrogen Hub, Microelectronics Commons, and HeartlandBioWorks as strategic focus areas based on recent federal technology and innovation designations.

Indiana must develop workforce training programs geared to the specialized needs of these key industry sectors, providing assured pipelines for employers. Doing so will ultimately position Indiana to achieve nationally competitive GDP growth.

[14] For more information about TEConomy Partners, visit: https://www.teconomypartners.com/.

RESEARCH METHODOLOGY

Ivy Tech and TEConomy's first-of-its-kind research estimated the statewide demand for employer-driven skills training in four key industry sectors in Indiana. The research leveraged several key data sources that, in combination, provide estimates of the number of workers within the industry sectors noted earlier that will require some type of skills-based training in the coming years.

The demand for skilled workers who will require this training in Indiana is assumed to come from three main sources: (1) **new job creation demand** due to the growth of industry sectors over time; (2) **replacement demand** due to the need to backfill current positions as incumbent workers retire or otherwise leave the workforce; and (3) **reskilling and upskilling demand** due to the need for some share of the current workforce to update their skill sets in order to remain relevant in their current roles as technologies and business operations change. Taken together, these three components of demand can be expected to capture much of the need for skills-based training in Indiana over the next decade.

To estimate each of these components of demand, Ivy Tech and TEConomy used various sources of information on current and projected occupational workforce levels, as well as on anticipated shifts in the skills and credentials required for various roles. Data from multiple sources were analyzed, including from Lightcast, the Quarterly Census of Employment and Wages (QCEW), Occupational Employment Statistics (OES), Current Population Survey (CPS), the World Economic Forum (WEF) *Future of Jobs* Report[15], and the Bureau of Labor Statistics' Occupational Requirements Survey (ORS). Please see Appendix A for the comprehensive methodology.

Using this data, Ivy Tech and TEConomy estimated the jobs in Indiana that will remain stable compared to those that will require reskilling, thus estimating the potential demand for reskilling and upskilling in the state over the coming decade.

[15] "Towards a Reskilling Revolution: A Future of Jobs for All," World Economic Forum in collaboration with The Boston Consulting Group, January 2018, https://www3.weforum.org/docs/WEF_FOW_Reskilling_Revolution.pdf.

KEY FINDINGS

Based on the methodology, Ivy Tech and TEConomy estimated the demand for skills-based learning and training across Indiana's four key industry sectors: advanced manufacturing; business, logistics, and supply chain; healthcare; and IT.[16]

Across the four industry sectors, the research shows that 69% of projected job openings in these sectors will require a high school education plus additional skills training. In total, the research concludes that **Indiana will need to credential over 82,000 learners annually over the next decade** to meet workforce demands and support reskilling. This 82,000 figure includes upskilling workers through credentials, certifications, degrees, or licenses (Figure 1).

The research disaggregated demand by industry sector:

- **Advanced Manufacturing:** An estimated 18,300 annual positions will require credentials, including roles such as technicians, machinists, maintenance roles, and programmers.
- **Transportation and Logistics:** Demand for 24,000 positions annually, including truck drivers, mechanics, and technicians, with a growing need for workers skilled in digital logistics and supply chain technologies.
- **Healthcare:** Approximately 38,700 annual openings will require credentials, with high demand for nurses, medical assistants, and healthcare technicians.
- **IT:** Demand for 1,300 tech professionals, including software developers, systems analysts, and cybersecurity specialists, in sectors like healthcare, manufacturing, and logistics. It should be noted that the overall IT occupation forecasting may be limited by employment data systems' ability to capture rapidly changing IT occupational dynamics. TechPoint's Mission 41k initiative highlights the need to grow the overall IT workforce by 41,000 credentialed individuals by 2030 in support of industry tech adoption needs.[17]

Replacement demand is expected to drive the majority of openings, reflecting the significant portion of the workforce, particularly in sectors like manufacturing and healthcare, that are nearing retirement age. The need for reskilling and upskilling related to digital competencies is also projected to require significant skills-based credentialing, with incumbent workers seeking to adapt to emerging technologies and trends.

As Indiana looks to meet these workforce demands, skills training—especially non-traditional, employer-driven training programs—will be critical.

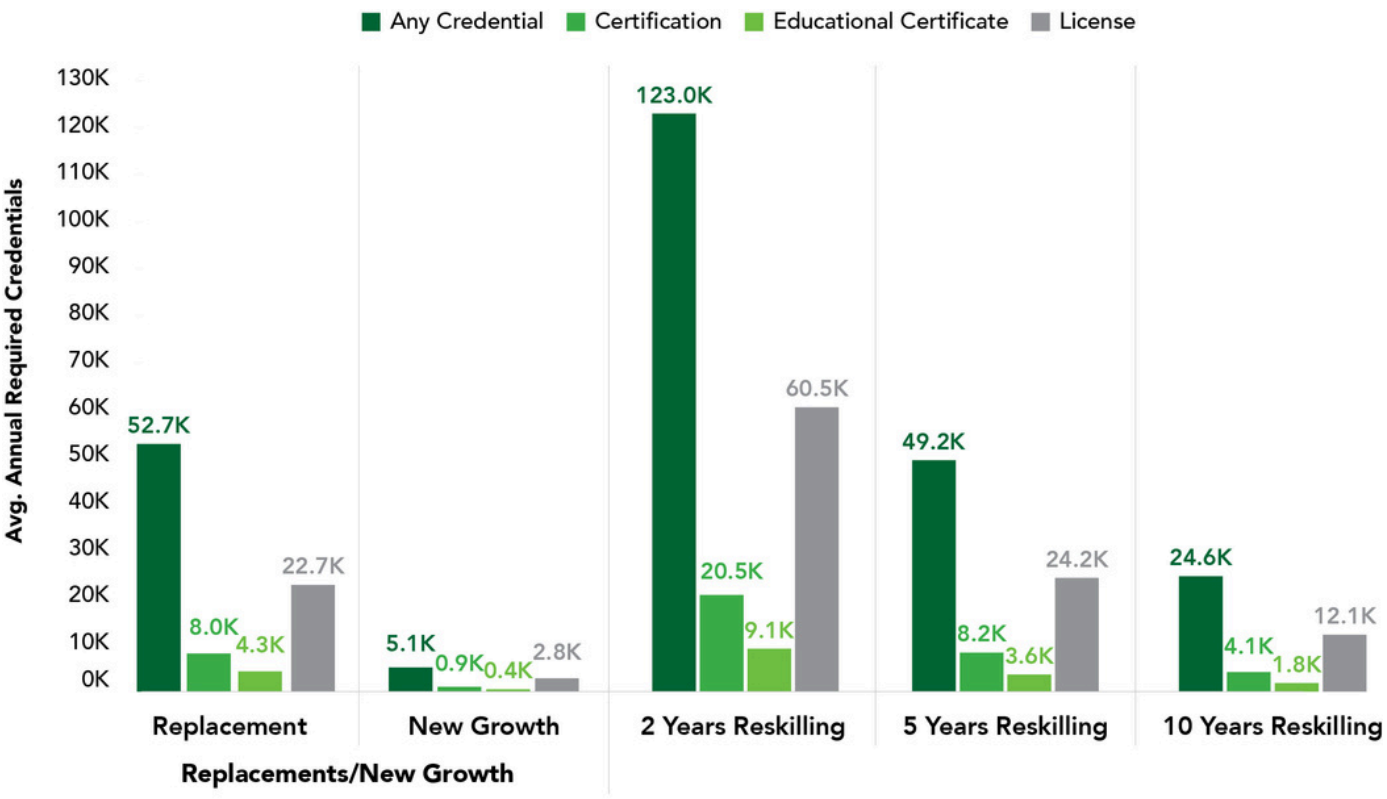
Voice of the Customer

In addition to the research, Ivy Tech and TEConomy sought to capture the "voice of the customer" to better understand employers' and students' experiences and needs relating to training programs and upskilling. This was enabled by the development and deployment of three surveys—two for employers and one for students who had completed skills training programs—that gathered important feedback and input on preferences for skills training going forward.

Employer feedback included surveying approximately 150 employers across advanced manufacturing, business, healthcare, IT, and transportation sectors, representing employers within all 19 statewide Ivy Tech campus geographic service areas.

[16] It is important to note that these estimates represent a best approximation of credentialing needs on a per-worker basis leveraging typical entry-level requirements standardized under federal reporting definitions. Actual credentialing requirements may vary, workers may require more than one credential as a requirement of their roles, and these estimates make no assumption of the source of credentialing with respect to existing degree or industry training programs that provide credentialing as a part of other educational programs.
[17] "2023 TechPoint Indiana Tech Workforce Report," TechPoint, January 2023, https://techpoint.org/wp-content/uploads/2023/01/2023-TechPoint-Tech-Workforce-Report.pdf.

Figure 1: Average Annual Demand for Credentials by Credential Type and Assumed Period of Reskilling, All Industry Areas



Source: TEConomy Partners analysis of LightCast QCEW data; BLS Occupational Requirements Survey data; WEF Future of Work Jobs Report and Survey 2023 data.

Survey Findings

Existing Ivy Tech Employer Partners

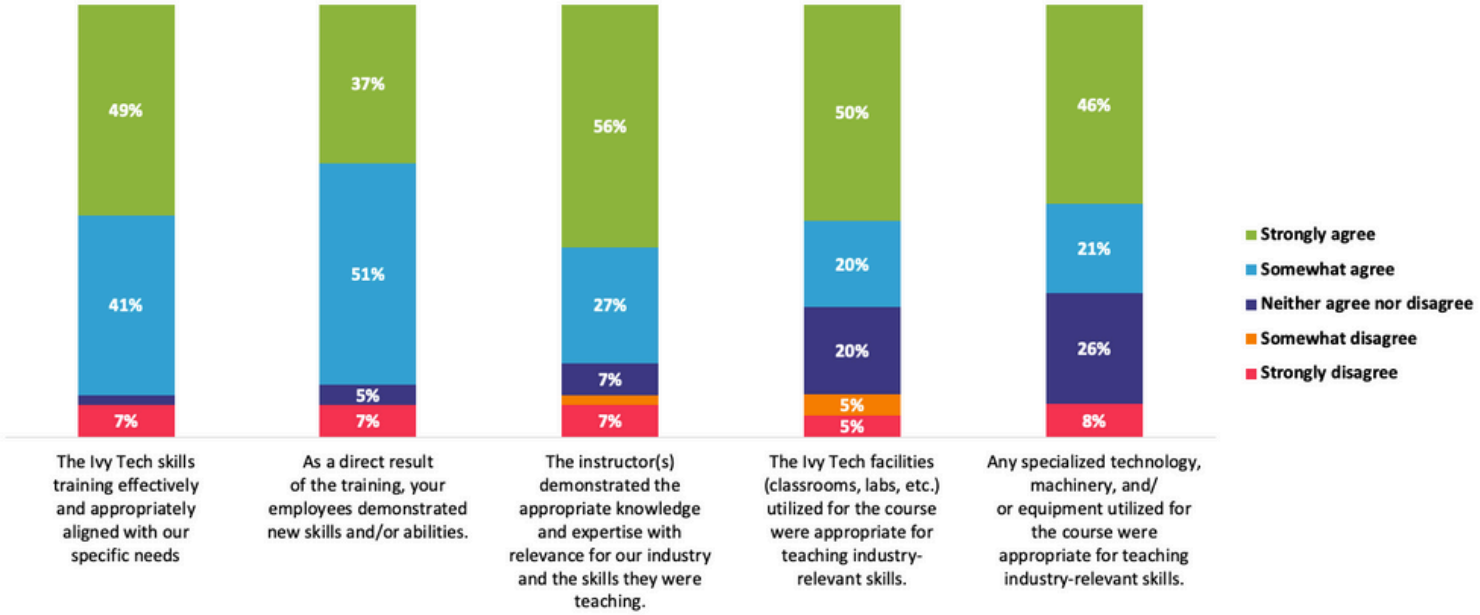
The first employer-focused survey was for existing skills training clients to evaluate the current Skills Training partnership experience with Ivy Tech. Through the survey, we found that **the need for reskilling and upskilling the existing workforce is primarily driving employers' skills training demand.** Through the survey, 80% of organizations indicated the need to modernize, reskill, or upskill their existing workforce as the primary driver behind skills training.

Employers who currently work with Ivy Tech for training programs were highly positive regarding the effectiveness and quality of instruction, with 90% agreeing that (1) training was effective and aligned with needs, and (2) employees demonstrated new skills as a direct result of training (Figure 2).

More than 60% anticipated upcoming training needs for occupational and technical training, while 62% saw a need for non-technical and soft skills development. Forty-one percent emphasized the need for digital and technology skills training.

Regarding training format, most employers prefer to conduct trainings in person, with 85% of respondents preferring in-person trainings or expressing an openness to multiple formats. Hybrid or online-only options received little support as isolated choices, but total support for these formats reached nearly 50%.

Figure 2: Employer Satisfaction Survey on Ivy Tech Training



Source: TEConomy Partners' analysis of survey data.

Prospective Employer Partners

The second employer-focused survey was for prospective clients to evaluate awareness and engagement with Ivy Tech and understand demand from industry. For employers not yet working with Ivy Tech on skills training specific programs, 74% reported a current or near-term need for skills training (Figure 3). However, only 56% are currently working with training partners (Figure 4). Between companies looking to expand training offerings and those who currently do not have training partnerships, there is a sizable need for programs like those that Ivy Tech can provide.

Nearly 80% of prospective employers anticipate upcoming training needs to be focused on role-focused technical training, with 64% prioritizing soft skills-focused, non-technical training. Only 43% emphasized digital/technology skills and technology/computer interfacing related training (Figure 5). Specific skills expected as near-term priorities include supervisory/leadership/interpersonal skills (69%), industrial maintenance (55%), and safety/OSHA (46%), among other technical and leadership skills.

Barriers to Prospective Employers' Adoption of Skills Training Programs

As a part of industry benchmarking visits related to the Conexus Indiana and Ivy Tech Digital Skills for Smart Manufacturing partnership, Ivy Tech regional and state leaders inventoried the varying perceptions of small- and medium-sized advanced manufacturing firms related to their hesitancy to engage in partnerships to deploy skills training with third party postsecondary partners like Ivy Tech. Ivy Tech and Conexus leaders met with approximately 20 manufacturing companies across six regions to gather industry input on challenges and opportunities. Insights gleaned include: (1) There is a lack of awareness of Ivy Tech's ability to deliver short-term, high-quality skills training; (2) there is a lack of ongoing, regularly scheduled trainings occurring that companies may enroll employees within; and (3) there is a lack of availability of overall, flexible models of skills training that incorporate multi-employer cohorts to allow for streamlined, consistent offerings.

Figure 3: Prospective Employers' Need for Skills Training

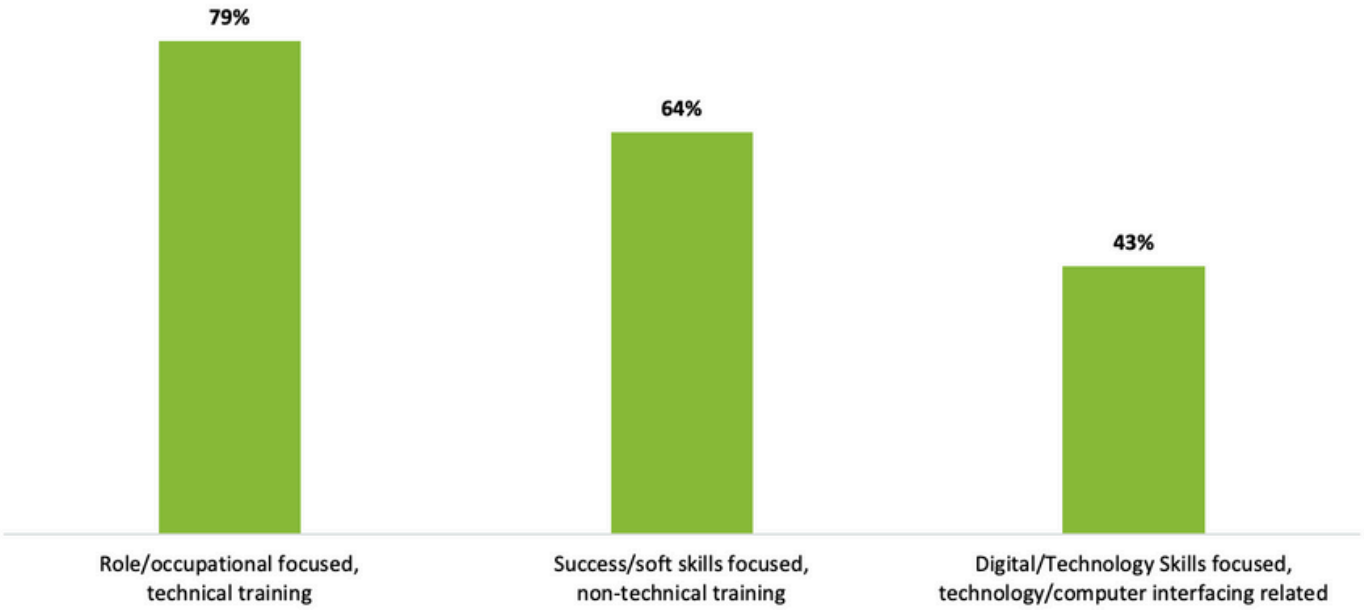
Source: TEConomy Partners' analysis of survey data.

Figure 4: Prospective Employers' Existing Skills Training Partnerships

Source: TEConomy Partners' analysis of survey data.

Figure 5: Skills/Competency Categories Prospective Employers Expect to Prioritize in the Near Future

What skills/competency categories would your company see as strategic training priorities to your firm in the next 3 to 5 years? (n=103, multiples responses allowed)



Source: TEConomy Partners' analysis of survey data.

Students

The last survey was disseminated to former Ivy Tech students who participated in skills training programs.These respondents were well distributed across training areas and geographic locations for training, with both employer-sponsored program participants (48% of respondents) and self-sponsored participants (34% of respondents) responding in substantial numbers.

Respondents enthusiastically rated many aspects of the Ivy Tech training courses they deemed most valuable, which include strong instructors, plentiful opportunities for personal development and leadership, and the accessibility of "hands-on" learning experiences.

Findings include:

- 81% percent of respondents recommend the courses;
- 77% recommend their instructors to others;
- 75% said that skills training was worth the time and investment; and
- 75% indicated it enabled them to better perform their current job.

Considered all together, the research results provide generally very positive feedback about employers' and students' experiences in utilizing Ivy Tech for existing skills-based training programs.

IMPLICATIONS FOR INDIANA'S INDUSTRIES

The "voice of the customer" survey data demonstrate that employers view occupational and technical training as the primary drivers for engaging in skills training partnerships with educational institutions. Currently, Ivy Tech workforce enrollment programs are well positioned to provide necessary skills training to meet these industry demands. However, there is an opportunity to further align the broader skills training delivery model to more directly embed robust industry sector pathways within overall models. This would include the bundling of courses to encompass comprehensive, short-term occupational training that may be delivered within an intensive format across varying instructional timeframes, such as one-to-two day or two-to-four week options. When examining the needs of various sectors, nuance must guide the design of necessary pathways.

In sectors like healthcare, several licensing and applied learning requirements require even more extensive workforce program models to sufficiently prepare the workforce for key, in-demand roles. A current model deployed with Ascension St. Vincent's Health involves sequencing nursing apprenticeship students from a Certified Nursing Assistant (CNA) role to a Licensed Practitioner Nurse (LPN) via a registered apprenticeship program. Nurses earn wage increases upon completion of the apprenticeship and move fully into the full-time LPN role.

In industries like advanced manufacturing, licensing requirements are far less regulated than healthcare, except in cases such as professional certification requirements in FDA-regulated environments. Firm leaders typically identify third party industry certifications endorsed by major industry trade associations like NIMS, SACA, and others. Aligning pathway models that result in third party industry certifications that are listed within the Indiana Department of Workforce Development's Promoted Industry Certification List also provides incentives to support the development of sustainably funded programs that also meet state educational attainment goals.[18]

Other skills training models are underway at Ivy Tech. For example, Ivy Tech campuses in Kokomo, South Bend, and Valparaiso recently launched new industrial robotics and controls skills training bootcamps, for which over ten employer partners across the regions sponsored their employees to upskill related to controls competencies. In addition, the Anderson campus is launching the Hancock County Manufacturing Skills Academy, which showcases a sequence of industrial training courses ranging from Basic Industrial Electrical to Programmable Logic Controllers Levels 1 and 2. The completion of the two-week bootcamp will result in SACA Gold and Silver certifications, which counts towards academic credit if program participants matriculate into an academic certificate, such as the Industrial Electrical Technology Technical Certificate.

Future pathway models should embed flexibility to customize course designs to incorporate unique regional and local industry and skill competency needs.

[18] For more information about the Indiana Department of Workforce Development's Promoted Industry Certification List, visit: https://www.in.gov/dwd/career-training-adult-ed/indianas-promoted-industry-certifications/.

IVY TECH'S ROLE IN MEETING INDIANA'S DEMAND

Based on the findings of this research, alongside the steady demand for a skilled workforce across Indiana, there is a demonstrated and significant need for prioritizing and scaling skills-based training across the state. Ivy Tech is strategically situated to deliver on this need as a well-coordinated, statewide institution—a significant asset and strength for Indiana that most other states are unable to leverage.

As the nation's largest singly accredited statewide community college and Indiana's workforce engine, Ivy Tech is uniquely positioned to understand Indiana's workforce advantage and its urgent need for leadership in workforce development and skills training. Ivy Tech actively augments and amplifies the efforts of K-12 education, postsecondary institutions, workforce boards, industry associations, economic development councils, and chambers of commerce within a broader, collaborative workforce ecosystem dedicated to fostering economic growth and individual prosperity throughout Indiana.

Ivy Tech's strategic plan, Higher Education at the *Speed of Life*, underscores its capacity to address Indiana's evolving workforce needs with student-centered, responsive approaches. The College understands that today's jobs—and tomorrow's—require an education system that is nimble, innovative, and equipped to deliver a unique blend of technical skills, critical thinking, professional skills, and adaptability in an increasingly dynamic and competitive world. Ivy Tech's adaptive approach and longstanding relationships with diverse stakeholders form the foundation of a robust, multifaceted strategy to achieve transformational impact at scale.

Through its existing Skills Training model, Ivy Tech has proven its ability to deliver open enrollment, industry-driven training through in-person, online, and hybrid models. Ivy Tech leverages industry sector partnerships and industry talent associations to inform skills training, seen in direct partnerships with programs like the Muncie Manufacturing Alliance, La Porte Economic Advancement Partnership (LEAP), Evansville Regional Economic Partnership, LIFT Initiative (South Bend - Elkhart region), Conexus Indiana, Regional Opportunities Initiative (Bloomington region), and BioCrossroads. Further, Ivy Tech has a demonstrated willingness to co-brand and co-design programs with other postsecondary institutions, agencies, and employer partners to best meet Indiana's training needs. Ivy Tech's work in skills-based training has the potential to serve as an ongoing catalyst for broader efforts to modernize Indiana's workforce and provide opportunities to underemployed workers.

Employers are increasingly investing in skills training, with Ivy Tech playing a pivotal role in meeting this growing demand. From summer 2022 to summer 2024, Ivy Tech has engaged in nearly 1,600 contracts with employers for customized skills training. Learners enrolled in Ivy Tech's non-credit training programs can earn academic credit by demonstrating competencies and skills mastered through these courses, creating clear pathways into academic degree programs that lead to higher levels of educational attainment and career growth. Over the past five years, Ivy Tech's skills training enrollment—primarily driven by employer contracts—has grown significantly.

CALL TO ACTION

Research confirms the demand for skills training and solidifies Ivy Tech as the ideal partner to provide such training. Key findings from the research include:

- A significant and demonstrated demand for skills-based training, with the projected workforce demand across industry sectors expected to require more than **82,000 credentialed learners per year** over the coming decade within non-degree programs.
- A demand for skilled workers in existing and emerging industry sectors, largely focused on workers with a high school diploma plus some level of significant skills training, driving a substantial need to continually upskill and reskill across the industries that are driving Indiana's economic growth.
- An employer base that is reinforcing the demand for skills training and positive feedback on the role Ivy Tech plays in delivering this training.

To date, the success of efforts to upskill and reskill workers shows the value of higher education to statewide economic efforts. Training programs provided by educational institutions like Ivy Tech that are aligned to higher value, higher demand, and higher wage occupations lead to a thriving Hoosier economy.

While past and existing investments in upskilling the workforce have been successful, more must be done. The demand to credential 82,000 learners annually over the next decade will require a collective state effort. Ivy Tech is currently the primary provider of skills training in Indiana, and this would require tripling its workforce enrollment. State agencies, postsecondary educational institutions, career technical and vocational providers, workforce and economic development leaders, employers, and additional public-private partners must come together to validate and sustain efforts to ensure continual momentum towards the goal. As Indiana's economy continues to grow and evolve, the investment in skills-based training can lead to accessible careers and workforce success for both new and incumbent workers.

Ivy Tech is uniquely positioned to deliver on this need as a well-coordinated, statewide institution—a significant asset and strength for Indiana that most other states are unable to leverage. Ivy Tech is well regarded in its current role as the leading skills training provider for Hoosiers and their employers.

To meet the moment for Indiana's significant future talent and skills needs, Ivy Tech recommends employers, industry associations, state government, postsecondary institutions, and career technical and vocational providers take the following actions:

Employers

- Invest: Provide tuition and funding support to upskill the workforce as a part of talent development and upskilling/reskilling strategies for their company.
- Inform: Provide key insights, desired outcomes, and feedback to training providers to signal in-demand and emerging training needs to ensure program curricula align with current demands.
- Engage: Raise awareness among employees about opportunities to invest in their skill sets via skills training, tuition benefits, and work-and-learn opportunities and pathways (e.g., apprenticeships) to increase their contributions to the company.

State Government, Industry Associations, Economic Development Agencies, and Workforce Development Agencies

- Invest: Promote the funding of programs and policies in support of skills training and workforce enrollment program models that align to high-demand, high-wage jobs.
- Inform: Enable data infrastructure and reporting insights to align course/program offerings and high-demand, high-wage workforce needs.
- Engage: Convene industry partners, postsecondary educational institutions, and career and technical vocational providers to increase skills-based training partnerships, develop common occupational pathways and curricula, and reduce duplication of offerings within regional settings.

Postsecondary Institutions and Career Technical and Vocational Providers

- Invest: Invest in the development and redevelopment of industry-aligned course offerings that meet industry's direct, short-term training needs.
- Inform: Inform students who are in skills training to enroll in occupational pathways, and raise awareness around intentional program design elements that convert completed coursework to credits for academic programs of study.
- Engage: Engage regional industry and public-private partners to co-develop skills training curricula and inform future offerings.

Addressing Indiana's workforce crisis requires a unified, collaborative effort among employers, state agencies, educational institutions, and workforce development partners to meet the state's future talent demands and sustain long-term economic growth. Ivy Tech is poised to play a pivotal role by leading efforts in upskilling and reskilling workers, helping to build a resilient workforce that supports Indiana's economic future.

APPENDIX

Methodology—Approach to Estimating Indiana's Demand for Skills Training

The projection of demand for skills-based training leverages several key data sources that, in combination, provide estimates of the number of workers within strategic areas who will require some type of skills-based training in the coming years. The demand for skilled workers who will require this training in Indiana is assumed to come from three main sources: (1) **new job creation demand** due to the growth of industry sectors over time; (2) **replacement demand** due to the need to backfill current positions as incumbent workers retire or otherwise leave the workforce; and (3) **reskilling and upskilling demand** due to the need for some share of the current workforce to update their skill sets in order to remain relevant in their current roles as technologies and business operations change. Taken together, these three components of demand can be expected to capture much of the need for skills-based training in Indiana over the next decade.

To estimate each of these components of demand, TEConomy leveraged a multi-phased approach and various sources of information on current and projected occupational workforce levels, as well as anticipated shifts in the skills and credentials required for various roles. Estimates were developed for each occupational role within Indiana's workforce, as defined by federal Standard Occupational Classifications (SOCs)—a system used by the federal government to categorize and classify workers into occupational groups based on the nature and primary responsibilities of their work.[19]

This process involved:

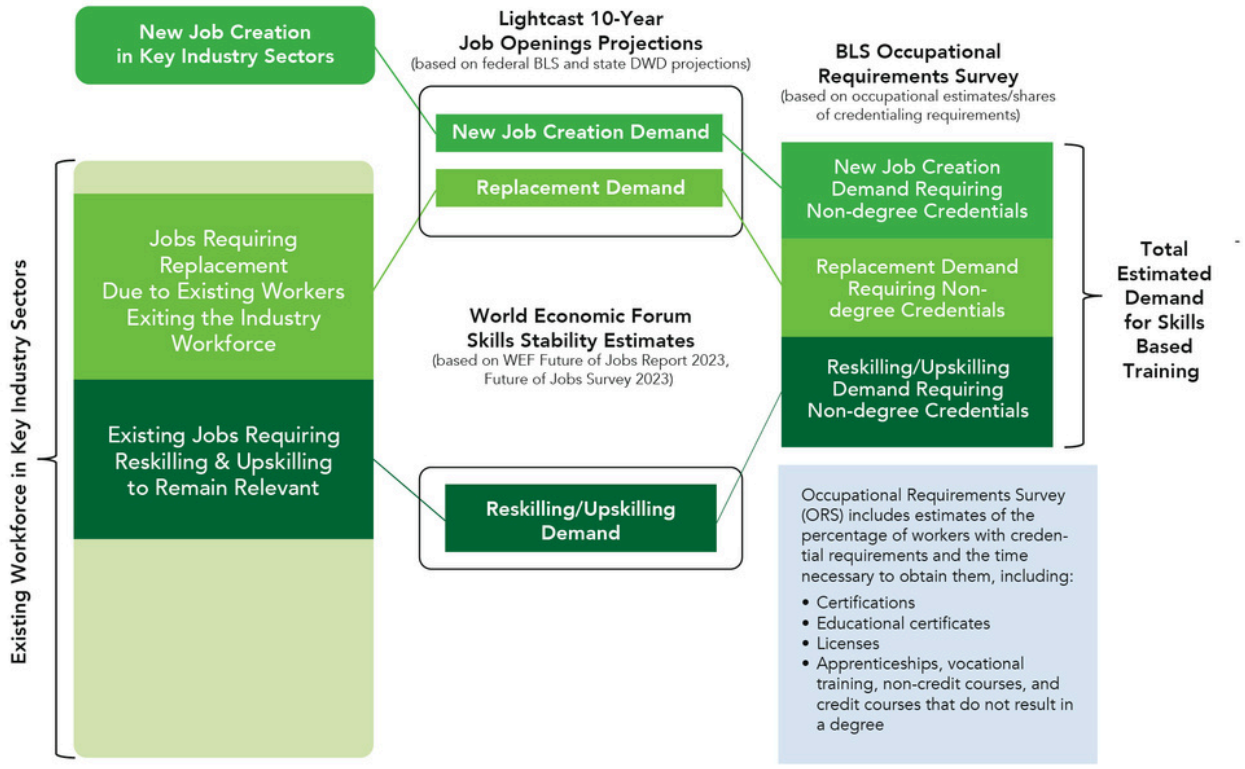
- Leveraging **Staffing Patterns and Job Openings Projections** developed by Lightcast which use a combination of federal data sources, including the Quarterly Census of Employment and Wages (QCEW), Occupational Employment Statistics (OES), and Current Population Survey (CPS), to provide detailed insights into employment trends and labor market dynamics. These projections include regionalized estimates of job openings based on new job creation and replacement needs due to worker turnover, which were used in conjunction with broader industry staffing patterns to estimate the total number of new and replacement job openings projected for Indiana on an average annual basis over the next decade.
- To then estimate the potential demand for training driven by reskilling and upskilling, TEConomy also leveraged methodologies included in the **World Economic Forum (WEF)** ***Future of Jobs*** **Report.** [20] This report highlights global trends in job displacement and skills stability and **estimates that 44% of skills in key industries will need to change over the next five years due to technological advancements.** TEConomy applied a measure of skills stability developed for the report, which estimates the proportion of core job skills that are expected to remain the same over the next five years, to current levels of Indiana occupational employment using broad occupational segments outlined in the methodology. This results in an estimate of the potential demand for reskilling and upskilling on an average annual basis as a subset of Indiana's current occupational workforce.

[19] For more information on the SOC system and specific occupations, visit: https://www.bls.gov/soc/.
[20] "Towards a Reskilling Revolution: A Future of Jobs for All," World Economic Forum in collaboration with The Boston Consulting Group, January 2018, https://www3.weforum.org/docs/WEF_FOW_Reskilling_Revolution.pdf.

- Using the sets of demand estimates described above, TEConomy then referenced the **Bureau of Labor Statistics' Occupational Requirements Survey (ORS)** to identify the subset of total annual demand that would require some form of **non-degree credentialing requirements**, **which includes various types of certifications, educational certificates, licenses, and other training such as apprenticeships, vocational training, non-credit courses, and credit courses that do not result in a degree**.[21] Collectively, these areas align most closely with the concept of skills-based training for institutions like Ivy Tech. For each occupation, the ORS provides estimates of the types of credentials and on-the-job training required for various jobs across industries, estimating that in 2023 around 45% of civilian workers in the U.S. required some form of non-degreed credential. Using these estimates at the detailed SOC level, TEConomy identified the subsets of demand driven by new job creation, replacement, and reskilling that would require some kind of credential.

This approach allows for detailed occupational estimates of projected credential requirements demand for Indiana, both across and within industry clusters. The comprehensive methodology is outlined in Figure 6.

Figure 6: Methodology for Estimating Demand for Skills-Based Training in Indiana



[21] For more information on the ORS, visit: https://www.bls.gov/ors/.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