

Strengthening and Expanding College and Career Pathways to Address Regional Needs Through Partnerships and Shared Commitments

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Abstract

There is value in strengthening the transition from high school to college and careers for all students in the state of Indiana. Local school districts, Indiana University Kokomo partners, and regional agencies worked together on the Department of Education “Explore, Engage, and Experience” (3E) Grant to enhance career exploration and pathway engagement for P-12 students in north central Indiana. This work was informed by the “grow your own” approach, which leverages both college and high school capacity and staffing to create new opportunities for high school students through dual enrollment or dual credit courses, intentional college advising, career development and professional networking, and work-based learning. We share our process of planning and implementing the program. Our goals of increasing career exploration engagement, work-based learning, and credentialing activities were met. We evaluate the outcomes, sustainability, and future practices or considerations for these kinds of programs.

Keywords: higher education, high school, career exploration, work-based learning, credentialing, school partnerships, college and career pathways



Recognizing the inherent value and contribution of community partners in higher education, we worked with local school districts to equitably address career exploration and college readiness in schools as well as labor market needs in north central Indiana through a grant project. Several high school to college pathways were created and are currently being implemented. The Tomorrow’s Workforce: Partnerships for Broadening College and Career Pathways (Tomorrow’s Workforce) project brought together individuals from multiple areas—P-12 education, higher education, economic development—to solve local challenges and strengthen local communities and the region of north central Indiana. Specifically, the project focused on both career exploration and pathway engagement for P-12 students in north central Indiana and was informed by statewide initiatives focused on high school redesign, career coaching, and youth

apprenticeship. We conclude by offering recommendations for building partnerships in this context, such as leveraging state-level mandates and roles of pathway specialists to ensure mutually beneficial outcomes.

The “Explore, Engage, and Experience” (3E) Grant Program

These established relationships are leveraged to (1) support a substantial expansion of pathway opportunities for high school students and (2) introduce career exploration and engagement curriculum in grades K-12. The project was funded through a multiyear grant from the Indiana Department of Education called the “Explore, Engage, and Experience” Grant, or 3E Grant, that facilitates career exploration and hands-on experiences designed to help prepare P-12 students for future careers and postsecondary education opportunities. One outcome of the

grant program is to increase the number of students completing a Next Level Program of Study (NLPS)/Career Technical Education (CTE) pathway or earning a high-value postsecondary credential (e.g., the Indiana College Core [ICC]). Another outcome is to increase P-12 student involvement in innovative career exploration and engagement opportunities in elementary and middle school.

Grant Program Planning

In preparation for the 3E Grant proposal, an initial local education agency (LEA) needs assessment indicated the lack of LEA capacity to meet some or all requirements (e.g., capstone courses) for specific NLPS pathways and that a partnership to address these gaps would be extremely valuable. In addition, LEAs expressed concern that, although certain in-demand jobs are of high interest to students, career pathways are not currently accessible in their district (e.g., health care, health sciences, business management, humanities, and computer science). These pathways align with the focus of the North Central Indiana Regional Economic Acceleration and Development Initiative (READI) and the 21st Century Talent Region, both of which contain strategies and action steps designed to support career pathway initiatives, postsecondary educational and credential attainment, and economic development. Additionally, the needs assessment identified LEA interest in partnering with Indiana University (IU) Kokomo to provide career exploration and development experiences to their P-12 students through campus visits, advising, career coaching, presentations from IU Kokomo staff and faculty, career fairs, and information about the level and type of postsecondary education needed for various careers and college readiness.

Partners included IU Kokomo, local school corporations, and the North Central Indiana Regional Planning Council (NCIRPC). NCIRPC served as the technical partner for this project, in coordination with the Region 4 Workforce Board, to provide targeted local expertise in community and economic development. IU Kokomo is one of five regional campuses in the IU system. Located 50 miles north of Indianapolis in Kokomo, Indiana, IU Kokomo is committed to student success and community engagement. This university serves approximately 3,100 students from a 14-county area in north central Indiana. Four local school corporations are community partners. These four LEAs are

active partners with IU Kokomo and have long-standing working relationships with the campus for various initiatives (Power Up for College for middle and high school students, primary partner for the ICC, Teacher Residency, grow-your-own programs, and dual credit course enrollment). These LEAs are also members of the IU Kokomo School of Education's Center for Educational Partnership (CEP), a formal network of more than 35 member school corporations in the region, which convenes regularly to serve in an advisory capacity to IU Kokomo and to pursue educational goals.

To plan and implement the Tomorrow's Workforce project through the 3E Grant, all partners participated in a College and Career Pathways Council (CCPC) that met monthly during the academic years. The CCPC determined action steps and assessed progress toward the goals of pathway expansion and implementation of career exploration curriculum in the four partner school districts. Additional stakeholders, such as the local economic development organizations and chambers of commerce, inform the work of the CCPC, provide input and feedback, and serve as partners in career pathway implementation. The mission of the CCPC is to identify ways in which IU Kokomo and regional employers can partner to support CTE pathway offerings, dual credit courses, and high-value credentials in local school corporations as well as strengthen the breadth and depth of career exploration opportunities for P-12 students. The CCPC shared information about successful practices and strategies achieved through this project with LEAs, organizations, and employers in the region through boards and advisory groups, such as the IU Kokomo Chancellor's Advisory Board, county advisory boards, and the School of Education's CEP.

The CCPC utilized multiple sources of data to inform decisions about which careers and pathways would be a focus of the project. NCIRPC and the Region 4 Workforce Board provided data regarding employment and labor market needs in the region. The Indiana Business Research Center conducted an analysis of the local labor market needs, both current and forecasted, and the availability of four-year college degree programs in the region for the high-demand career fields. Based on that analysis and taking into consideration which pathway opportunities LEAs were already providing to students, the CCPC decided to focus on expanding or

developing pathways in education/teaching, health care, health sciences, business, and computer science. These areas align well with IU Kokomo's expertise and degree programs. Also, the pathways align with forecasted employment needs and market demand in the region. The region has and is currently experiencing significant labor market challenges, with too few employees educated and trained for open positions and low rates of college attendance and completion. Addressing these challenges collaboratively leverages each institution's resources and elevates the potential impact.

3E Grant Approach: Grow Your Own

The project utilizes a grow-your-own (GYO) approach to build a pipeline of future employees for these professions and disciplines. GYO approaches implemented through P-12 and university partnerships leverage both institutions' capacity and staffing to create new opportunities for high school students through dual enrollment or dual credit courses, intentional college advising, career development and professional networking, and work-based learning. P-12 learners are engaged in career exploration, college advising, dual enrollment courses, work-based learning, and mentoring over multiple years with the intent of developing a sense of agency and self-direction, discipline-specific knowledge and skills, and personal networks to facilitate college success and subsequent employment. High school students in partner schools can earn college credit and complete credentials within specific degree or program areas that will benefit them in employment or pursuit of postsecondary education. These outcomes are important for all youth but are particularly essential for those who are traditionally underrepresented in college enrollment and certain professions.

The opportunity to earn college credit during high school through dual enrollment, concurrent enrollment, or dual credit programs, has been shown to have positive impact on both high school and college outcomes (An & Taylor, 2019) and is often seen as a cost-effective approach that provides expanded college access. Studies also suggest that dual enrollment has a positive impact on students' motivation and can help to promote the transition from high school to college (Dare et al., 2017). However, researchers have identified the inequitable nature of dual enrollment access for specific student subgroups, including low-income students,

lower achieving students, students of color, and English language learners (Taylor et al., 2022). The Tomorrow's Workforce program seeks to eliminate these disparities by addressing Patrick's (2019) equity-related considerations through program design, delivery, and improvement, which is a shared responsibility of IU Kokomo and partner K-12 school districts. Project partners are committed to engaging diverse P-12 students, and their families, in the opportunities the project offers and connecting them to additional IU Kokomo programs and resources designed to foster student success and belonging.

The grant project supported new career exploration and pathway specialist positions in each partner school district and at IU Kokomo to support P-12 student engagement in career exploration experiences and high school students' enrollment and success in college-to-career pathways. The support of additional staff within both the P-12 and university setting was critical to ensure the necessary personnel resources to work collaboratively with colleagues and across the P-12-university partnership and to provide career exploration and college advising services to P-12 students. Various academic units at IU Kokomo lead the development and implementation of the college-to-career pathway within their discipline. For example, the School of Nursing and Allied Health Professions leads the health care pathway.

3E Grant Partnership Outcomes

Measurements of impact are guided by the mandatory grant program outcomes. We tracked how many students from K-12 across the districts were engaged in career exploration activities, including exposure to pathways, opportunities, and skill sets, such as financial literacy and self-awareness. Such career exploration could also include activities that involve gaining insight into potential careers and researching the viability of pathways, career exploration and engagement, career through academics, and work-ready skills. Additionally, exploration included experiential instruction that supports the development of skills and knowledge, career mastery, postsecondary planning, and career experience.

Work-based learning was tracked like any career exploration internship, capstone in an academic or CTE pathway, preapprenticeship, or work-based learning experience with

an organization that is a federal Department of Labor program or registered apprenticeship or modern youth program. Additionally, enrollment, employment, and enlistment activities, such as learning about or engaging in these opportunities, were tracked. Specifically, enrollment was defined as any access to and enrollment in NLPS/CTE, ICC, or graduate pathway high-value credential. Employment was access to and/or engagement in career-level employment. Access to or enlistment in service, such as military service, was also recorded as enlistment. Different types of credentialing program engagement and completion were also tracked. Examples of credentialing programs include Certified Nursing Assistant (CNA), Welding, Construction, and Cosmetology.

Our goals for the grant program are outlined below:

1. Increase exploration engagement in K-12 to greater than 95% in Year 1 and Year 2
2. Increase work-based learning and credentialing activities by at least 50% from Baseline to Year 2

The rationale for the first outcome is to understand whether districts were able to ensure access to exploration to all students regardless of status (e.g., privileged). The rationale for the second outcome is to understand whether districts were able to increase access to these opportunities while maintaining realistic expectations about how many students these would relevantly apply to, hence the goal of 50% instead of at least 95%. We submitted this project to the Indiana University Institutional Review Board (Protocol #23886), and it was classified as not human subjects research.

More than 95% (Y1 = 100%; Y2 = 98%) of

K-12 students across the four school districts participated in activities designed to increase their understanding of careers, their own skills and interests, and local pathway opportunities in an age-appropriate and developmental manner (see Table 1). Additionally, the goals were met for work-based learning (Baseline = 457; Y2 = 903; 98% increase) and credentialing activities (Baseline = 26; Y2 = 69; 165% increase). Activities led by district pathway specialists and the IU Kokomo pathway specialist are reflected in these numbers and the increase, although it is important to note that the school districts were also implementing other initiatives and partnerships that would have impacted the data. Our district partners discussed that the mandates at the state level for college and career exploration made them focus on developing their own activities and partnerships with postsecondary institutions, which included IU Kokomo, to prepare career exploration materials and implement these kinds of activities. The IU Kokomo pathway specialist engaged in these activities with students in the districts. They also shared that the numbers reflected IU Kokomo’s assistance with developing and implementing more NLPS dual credit classes. Although we do not attribute the results chiefly to the grant program activities, the overall increased focus on work-based learning and career exploration supported by our grant and other initiatives within the school districts collectively made a positive impact on career readiness.

Sustainable Programming

Our work with pathway development and implementation is continuing between the districts and IU Kokomo. For example, a pathway has been developed for Exercise and Sport Science across two regional campuses, IU Kokomo and IU South Bend. A Business Administration pathway was articulated,

Table 1. Numbers and Percentages of Students Who Engaged in Career Exploration, Work-Based Learning, and Credentialing at Baseline, Year 1, and Year 2

Outcome	Baseline	Y1	Y2	Status
Exploration	2,528	6,628 (100%)	6,964 (98%)	Goal met
Work-based learning	457	692 (9.1%)	903 (11.4%)	Goal met
Credentialing	26	43 (3.7%)	69 (5.8%)	Goal met

with high school students having access to courses that are not available in their school. A Computer Science pathway is still being finalized across campuses, and IU Kokomo has begun a pilot with one high school for the 2024–2025 academic year. The Tomorrow’s Healthcare Professionals pathway began during the 2023–2024 academic year, and the Tomorrow’s Teachers in Education started their seventh cohort for the 2024–2025 academic year.

Evaluating Practices and Planning for the Future

We explored successes and challenges as perceived by grant program partners. LEA partners noted several successes. First, increased availability of college course offerings for high school students was developed. We made strides in developing new pathways and recruiting students for the pathways for fall 2023. As noted above, these pathways were scaled across other IU campuses, enabling academic programs to synchronize course transfer requests between campuses. For example, programs would identify which courses cover NLPs course objectives. The courses that were identified helped program coordinators understand similarities in course outcomes, which in turn facilitated an understanding of how those courses could transfer to other campus programs in the same area. This potential coordination was an unexpected benefit at the university level.

In collaboration with P-12 educators, career exploration and development activities were developed and compiled for grade P-12 staff and IU Kokomo staff to use when facilitating classwide, small group, or individual lessons to increase awareness of careers and students’ developing interests, aptitudes, and values related to future careers and post-secondary education. A career and college framework aligned to the state framework was used to guide the programming offered jointly by IU Kokomo and LEAs. The framework was developed and used to promote career exploration and college pathway exploration that satisfied state mandates and grant project requirements. Development of the framework is attributed to the support from pathway specialists at both IU Kokomo and the partner school corporations. The role of the pathway specialists was to create, implement, and support career exploration materials and activities, and create a smooth transition from high school career-based experiences or dual credits to college.

Having a pathway specialist at both sites ensured efficient, equitable, and relevant information for students in all grades, and services to high school students preparing to transition to college or careers.

Completing the contract with grant funders and the disbursement of the funds were significant challenges to overcome during Year 1. Furthermore, navigating a new partnership, learning new content, and identifying the scope of the project was time-consuming. For example, the principal investigator and project manager worked to understand how often the CCPC needed to meet and when. During these meetings, we ensured that time was used efficiently by identifying next steps, informational items, and discussion items to help with decision-making. Related to the development of pathways, identifying times and strategies for scheduling to offer college courses was challenging for high school partners. The school partners also had challenges finding high school students for the pathways because some students were already in pathways or there was not enough interest from students eligible for the pathways.

The partnership will continue to serve as an informational resource to other P-12 school districts in north central Indiana. The Tomorrow’s Workforce CCPC program has been presented at the state and local level to other superintendents, school counselors, and school board associations, and will continue to share lessons learned and best practices to promote similar programs and initiatives across the region. The CCPC will also engage in future collaborative endeavors with regional employers, educational institutions, chambers of commerce, and economic development groups. Given the changing landscape of high school education and higher education, it will be important to critically explore how pathways could serve as preapprenticeships. The partnership has been meeting with districts and intermediaries that have an existing pre-apprenticeship model to understand how to best integrate the approach. Apprenticeship models are mutually beneficial partnerships between local employers and school associations that allow students to split their time between the classroom and workplace, allowing them to earn a wage, build skills, earn an industry certification, build a professional network, and earn debt-free college credit (CareerWise Elkhart County, n.d.). An important next step is to

understand and take stock of employer or organizational engagement and availability in these preapprenticeship tracks. Such approaches increase access and opportunity for traditionally underserved students (Patrick, 2019) and have the potential to contribute to local and regional workforce and youth talent development in positive and meaningful ways. Our program design, delivery, and improvement strategies are ensuring equitable opportunities for students in the participating districts.

Partnership Recommendations

We recommend focusing on equitable relationship-building as an underlying value of the partnership. To do this, we recommend leveraging state-level mandates and roles of high school and college staff to create accessible pathways for high school students and K-12 career exploration programs in a manner that is beneficial for all partners. High school and college pathway specialists

can facilitate engagement of diverse P-12 students and their families and connect them to college and career programs and resources that foster student success and belonging. One way to ensure the program and roles are supported is to create frequent engagement opportunities to discuss goals, activities, and needs to bring ideas to action. We recommend making decisions about pathways and programs based on regional data and setting goals based on grant outcomes. When managing the program, it may be important to ensure necessary education about the grant process and outcomes for all partners, and explore the strengths and challenges of pathway and preapprenticeship programs. The implementation of the program can lead to unexpected benefits and issues at the high school and college level, so it is important to note them to celebrate successes or troubleshoot problems throughout the partnership.



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