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Education & Workforce Development

Support teachers for student success

In our first Thought Leadership Roundtable of 2023, educators and administrators at Indiana State University, the Metropolitan School District of Wayne Township, and Project Lead The Way discuss what can be done to create success for students and teachers in a constantly changing educational environment.

Q: What are the biggest challenges educators face today in preparing students for the workforce of the future?

Jeff Butts: What jobs will exist 5 or 10 years from now that do not exist today? The challenge is answering that question while retooling and reconfiguring the teaching and

learning experience to address frequent changes to the requirements and expectations of the Indiana General Assembly, the Indiana State Board of Education, the Indiana Department of Education, and the Governor's Workforce Cabinet. We must focus on the factors we can most significantly impact and not the ones over which we have no control. The MSD of Wayne Township proudly

focuses on preparing students through the Wayne Habits of Success, which are directly correlated to the 18 employability skills released by the Indiana Department of Workforce Development, the IDOE, and the Indiana Office of Work-Based Learning and Apprenticeship. This work, in partnership with our business and industry leaders, is critical to preparing our students for the workforce of the future.

Terry Daugherty: I believe there are three critical challenges facing educators and our education system today. First, the speed of change involving specialized skills is challenging. For instance, shifting practices within technology, data analytics, engineering, and medical fields (among numerous others) place a great deal of pressure on both educators and students. Second, high workforce demand combined with an inadequate supply of talent does not support a "knowledge mastery model," which is the basis of our system. And finally, there is a growing divide among school systems, institutions of higher education, and across states involving the necessary resources (e.g., financial, infrastructure, talent, etc.) to adequately prepare and deliver an educated workforce capable of meeting the needs of the 21st-century economy.

David Dimmett: One of the biggest challenges educators face today is keeping up with the technical knowledge and skills expected in business and industry. While many of the jobs remain the same in terms of titles and the industry sectors they serve (automotive, aerospace, etc.), other aspects of the workforce have changed, requiring an emphasis on durable skills like communication, problem-solving, collaboration, critical thinking, and more. While a strong foundation in math, science, language arts, and other core academic areas is important, it is not enough if students want access to the many career opportunities available in Indiana and around the world today. Students need practice applying their core academic knowledge to solve problems individually and as part of a team. The teacher's role is critical, so preparing and supporting teachers is

essential. One excellent way to support teachers is through partnerships in the community or externships at local industries. Early in my teaching career, I experienced first-hand an externship like this through work that Ivy Tech was leading in Evansville. This helped me connect in our community and better understand the knowledge and skills my students needed to be successful beyond the classroom.

Q: How can educators be better supported by the government and the private sector in meeting these challenges?

David Dimmett: Research shows that teachers who experience high-quality professional development, mentoring, and other supports are more likely to stay and be effective in their practice. While pre-service teacher preparation is important, in-service training throughout a teacher's career is critical. One of the most important aspects of our work at PLTW is supporting Pre-K-12 teachers in Indiana and across the U.S. through a range of practical, high-quality professional development experiences. These experiences, mentoring, and externships for teachers should be incentivized and count toward license renewal and other opportunities for career advancement. The private sector can work with civic leadership to establish an ecosystem that connects teaching and learning to a range of business and industry experiences. This should result in a range of learning experiences and connections that are both good for educators and also the students they serve.

Jeff Butts: An understanding of the intersection and interdependence between private and public entities in preparing students for the workforce of the future must be acknowledged, and addressing the glaring root causes of many educational challenges must occur. The Indiana Urban School Association outlined clear and actionable steps for lawmakers to address gaps in complexity, special education, and Non-English Speaking Program funding in its Complexity and Special Education Analysis. These funding gaps impact every public

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school in our state. The 2023 Session of the Indiana General Assembly is critical for the discussion around how Indiana will “reinvent high school” to make it more relevant for the 21st-century economy. Let’s not miss this opportunity in 2023 to intentionally bring government, the private sector, and P-12 practitioners to the table to positively impact the future of Indiana’s students and our economic future after more than a decade of failed P-12 education reform efforts.

Terry Daugherty: There are many ways that the government and private sector can address these challenges through support. First, avoid political pandering by acknowledging that education, which is the act of receiving knowledge, is an asset that elevates society through the workforce and the economy it sustains. Learning is lifelong, with education serving as a catalyst for innovation and improvement, which is why investing is necessary. Second, collaborative partnerships across all levels of education are vital because of resource constraints and the private sector’s need for talent. These types of relationships must also be long-term to truly reap the benefits for any organization. Unfortunately, stock prices, profit margins, and leadership changes often only allow for short-term commitments.

Q: What can be done to address the critical teacher shortage and broader hiring challenges we’re facing in Indiana?

Terry Daugherty: I don’t believe there is a teacher shortage among early, primary, and secondary schools. I’m not saying there is not a problem, but the teacher shortage is a symptom of the real problem. I say this because thousands of college students graduate with degrees in these areas each year. The issue is teachers do not feel valued and leave the profession within their first five years, which manifests as a shortage. The root cause is low and stagnant salaries, stress and burnout, and political ideologies that overstep rather than support teachers. We must send the message that teaching children in the state of Indiana is valued and critical for our future by increasing pay and providing them with the necessary support to be successful. This means committing to keeping current teachers while attracting new talent to the state, and helping them develop professionally throughout their careers.

David Dimmett: I believe we need to increase teacher pay to both retain great teachers and attract more young people to the profession. Additionally, we should look at alternative models of staffing schools. Arizona State University is leading work on the Next Education Workforce Initiative, which highlights teams of educators and other professionals supporting students in specialized ways. This team approach has incredible potential.

In hard-to-staff settings, we should consider additional incentives, including subsidized housing and additional loan forgiveness. Indiana companies are competing for talent by creating engaging and supportive workplace cultures with a range of benefits, including childcare, meals, and more. Schools can mirror private-sector strategies in many ways to make the school environment more inviting to both educators and students. Finally, I’d like to acknowledge the progress Indiana has made around teacher licensure. By creating more flexibility for teacher licensure, Indiana is maintaining a high bar for teacher qualification while allowing greater access to certain teaching roles. Computer science and other technical courses are examples of this.

Jeff Butts: The P-12 educational community is not immune to the hiring challenges faced by other private and public entities. Public school teachers have been vilified by the media, government, and private sector for far too long. Addressing the critical shortage of highly effective educators requires a change in the toxic dialogue and restoring the respect public school educators have earned. In MSD Wayne Township, we continue to focus on the retention of our highly effective educators and providing career advancement opportunities for those who are dedicated to teaching. We’re proud to partner with IUPUI, the University of Indianapolis, and Purdue University to offer opportunities for non-certified staff to pursue their passion through certifications, licensure, and Transition to Teaching programs. We continue to promote the amazing work and impact of a teacher in the lives of our students while combating negative perceptions and narratives about education in the media, government, and private sector.

Q: What are some examples of educational institutions collaborating with the business community to fill our state’s talent pipeline?

Jeff Butts: A strong collaboration with our business community, as well as other educational entities and non-profits, is critical to preparing students for the future. Ben Davis High School and the Area 31 Career Center offer students from 11 area high schools an opportunity to pursue dual credits, industry certifications, and work-based learning experience through partnerships with higher education partners and local businesses. Ben Davis University High School offers Indiana’s top-performing early college program, which boasts a 100% graduation rate for 11 years, with over 90% of students earning an Associate Degree for the last eight years. Our Help One Student to Succeed program has over 1,000 volunteer mentors who work in our schools on a weekly basis to help second and third-graders become better readers. Wayne Township Adult Education engages in ongoing

conversations with employer partners to ensure we provide relevant, cutting-edge, and calibrated instruction that aligns with today’s workforce needs.

Terry Daugherty: The State of Indiana does a very good job identifying high-demand and high-wage careers that are needed for the future. The state’s indianacareerready.com website is a great example. And while I’m sure there are many institutions doing great things, I can only detail our initiatives. A recent project involves partnering with Made@Plainfield and GEODIS to provide a unique learning experience involving the supply chain workforce. Our students are engaging in experiential learning by testing the use of logistics robots and data analytics to improve operations. We also regularly engage with other leading companies in insurance, accounting, finance, and marketing to meet workforce needs. For example, the Internal Revenue Service held a simulation this fall on our campus involving Treasury agents and a mock arrest to recruit students to careers in forensic accounting. Endress+Hauser is also partnering with our Sales and Negotiations Center because engineering, manufacturing, and technical firms need effective sales managers with soft skills to be successful. Accountants, financial managers, operations managers, analysts, and marketing research careers have all been identified as

critical workforce areas for the state, and we are proud that more than 70% of our business graduates at Indiana State are meeting these needs by staying in Indiana.

David Dimmett: One of the most important things we do at PLTW is connect Pre-K-12 schools with business/industry to make sure students have access to great careers while driving economic and workforce development in Indiana and across the U.S. Our partners often serve as experts as we continuously improve and update our curriculum and teacher training. One example of this is around our advanced manufacturing and computer science content. Industry experts regularly help us ensure that we are providing students and educators with relevant content and insights into career opportunities. We have many great partners helping us better serve Indiana students and educators, including Toyota, Ardagh, Eli Lilly and Co., Arconic Foundation, Boston Scientific, and more. Some of our best work with educators has been encouraged and supported by the Indiana Commission for Higher Education and the Indiana Department of Education. Collaboration across industries, educational settings, and government are incredibly important for expanding opportunities for more Hoosiers.



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Q: What is the responsibility of learners and, in the case of younger students, their families in building the state's talent pipeline?

Terry Daugherty: Young students and their families must also be accountable for their future. This means understanding the needs of society's workforce and learning about career opportunities early and often. Life is hard and there are always challenges, but developing a strong work ethic, thinking about future opportunities, and setting career goals can sometimes start with simple conversations. Obviously, my perspective is partial, but as a first-generation college student, I have always believed education is an equalizer that opens up opportunities.

Jeff Butts: It is everyone's responsibility to develop Indiana's talent. Our children are responsible for learning, exploring their unique interests, and reaching their full potential. While P-12 education plays a critical role in building the state's "talent pipeline," it isn't our primary focus. In Wayne Township, our primary focus is meeting the academic, social, emotional, and physical needs of our students. Meeting these needs requires intentional partnerships with each student's support structure in the home. Our emphasis on the Wayne Habits of Success has been deemed critical by multiple state agencies.

We must focus on the development of good people and not simply on "pipelines." The demands of our economy will continue to evolve, and our responsibility must be on preparing for an unknown future and not be short-sighted in scope. We continue to observe the pendulum swing from a laser focus on post-secondary education to skilled trades and back again.

Q: There's a lot of focus on STEM careers, but STEM covers multiple disciplines. What specific skills within STEM are most important for career preparation?

David Dimmett: When I think of STEM education, I think about the integration and crossover of the various disciplines, not just science, technology, engineering, and math in isolation. I'm also thinking about the application of these content areas and others—arts, language, and more—to understand and solve problems. In addition to the knowledge students develop in core academic areas, learning how to identify actual problems then work on solutions is critical to student learning and career success. This is a big part of what we do in PLTW's project-based learning approach. The work is highly relevant, and students are not only using their academic knowledge, but they are developing and using additional skills, including collaboration, ethical reasoning,

critical thinking, creativity, and more. When students are learning in this way and solving relevant problems as part of their school experience, they become more self-directed learners. Educators become co-learners and facilitators in this model. Lifelong and continuous learning really becomes the skill or mindset that makes the biggest difference in this setting and for dynamic, high-demand STEM careers.

Terry Daugherty: Problem solving, quantitative reasoning, strong communication abilities (written and verbal), technology proficiency, and maintaining a growth mindset are critical for career preparation. However, a fault within education is often the belief that these skills are universally transferable. Discipline-based context matters because skill and significant expertise comes from focused learning.

Q: The state is focused on creating more career opportunities, not just jobs. What is the difference and how can professionals continue to develop within a career?

Jeff Butts: I believe a job is something we do when we do not find meaning or motivation in our work. We go to a job so that we can earn a paycheck. Conversely, careers offer more than a paycheck; they tap into an individual's strengths, skillset, and passion, allowing space for opportunities, growth, and fulfillment. A career provides motivation for the duration of our working years and leads to a greater contribution to the future of our economy.

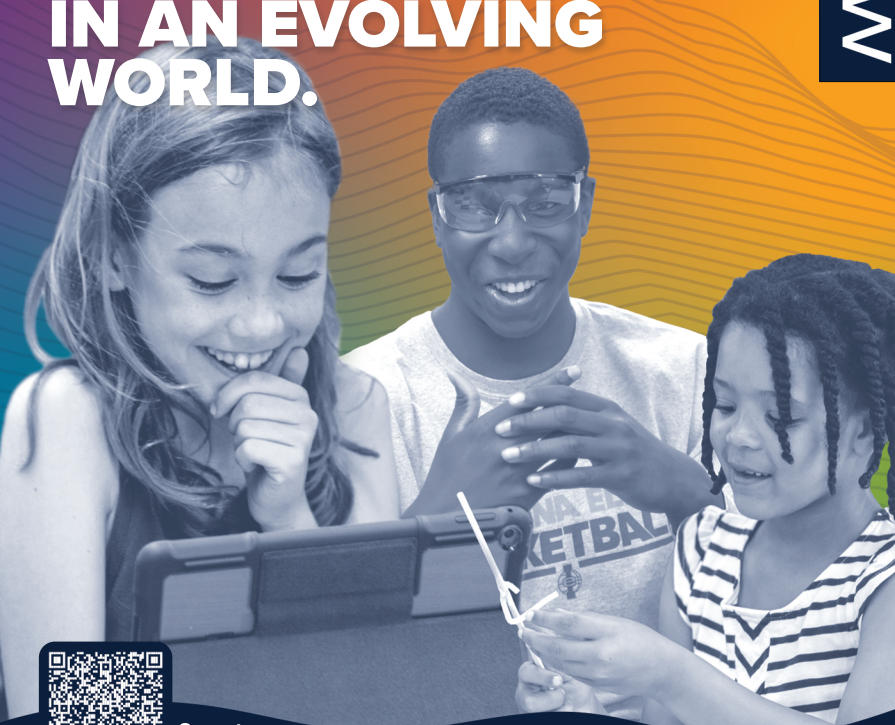
Terry Daugherty: A career means you are committed to investing


in yourself to bring value to an organization, industry, and community. For companies, this translates into a commitment to workforce development. The greatest asset for most organizations remains their people. The key is identifying talented personnel that are making positive contributions and ensuring they feel valued. This can happen through new challenges, growth opportunities, and, yes, compensation. The best companies will invest in career growth for employees through training opportunities, skill development, leadership, and education. In some instances, these practices may even have a greater effect on retention than salary.

David Dimmett: I really like this question and believe it's important for people of all ages to understand what is necessary to continue growing and advancing throughout a career. The first high school principal I ever worked for consistently spoke to our students and staff about the importance of lifelong learning. This is even more important today. I believe individuals who have the most success personally and professionally continue to learn and grow throughout their careers. They are curious about the world around them. They gain new skills and learn from colleagues and others. We have unprecedented access to learning resources and experiences. Through certifications and other credentials, individuals can continue to show what they are learning without the high cost of additional post-secondary degrees. We need to ensure the expectation about continuing to develop personally and professionally is part of every student's experience in K-12 education. ●

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Project Lead The Way (PLTW) works across the country with Fortune 500 corporations, local businesses, foundations, nonprofits, and others to **support students** and teachers with **high-quality STEM** education and **career development**.

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Dr. Jeff Butts, the Superintendent of the Metropolitan School District of Wayne Township, is a graduate of Millikin, Illinois State, and Purdue universities and is a Broad Fellow at the Yale School of Management. He is the 2019 AASA National Superintendent of the Year Runner-up, the 2019 IAPSS Indiana Superintendent of the Year, and has received numerous other recognitions at the local, state, and national levels.

Dr. Terry Daugherty is Dean of the Scott College of Business at Indiana State University. He previously served on the faculty at Vanderbilt University, University of Texas, and University of Akron, having authored over 70 publications including the new book "eMarketing: Digital Marketing Strategy." Prior to academia, Daugherty worked in advertising and completed his Ph.D. from Michigan State University.

Dr. David Dimmett is President and CEO at PLTW, a non-profit organization empowering students in pre-kindergarten through 12th grade across the U.S. to develop in-demand knowledge and skills in computer science, engineering, and biomedical science. Prior to joining PLTW, Dimmett served as the Chief Academic Officer of the Evansville Vanderburgh School Corporation in southwest Indiana. He has over 27 years of experience in education.

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