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HOUSE OF REPRESENTATIVES
COMMONWEALTH *of* PENNSYLVANIA

House Democratic Policy Committee Hearing
Career and Technical Education

Tuesday, August 29, 2023 | 10:00 a.m.
Representative Jim Haddock

- 10:00a.m. Welcome and introductions
- 10:15 a.m. Erin Keating, Superintendent
Old Forge School District
- Q & A with Legislators*
- 10:45a.m. Dr. Anthony Guariglia, Administrative Director
Wilkes-Barre Area Career & Technical Education
- Q & A with Legislators*
- 11:15a.m. Dan Kuba, Deputy Secretary for Workforce Development
Department of Labor and Industry
- Q & A with Legislators*
- 11:45a.m. Warren Faust, International Organizer
SMART Sheet Metal, Air, Rail and Transportation Workers International
President
Northeast Pennsylvania Building & Construction Trade Council
- Q & A with Legislators*

Remarks and Testimony can be found by scanning the QR Code below:

**Current Issues with Career and Technical Education
and
Practical Approaches to Make Systemic Change**

By

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Submitted to the
House Democratic Policy Committee

August 29, 2023

The Pennsylvania Department of Education (PDE) cites that career and technical education (CTE) is a necessary component of preparing the future labor force by offering “students the opportunity to develop critical skills through a combination of classes and hands-on learning experiences, which allow them to apply academics to real-world problems” (PDE, 2023, pg. 1). This concept of job-embedded training in high school level education is not a new concept; it's rooted in the 19th century, but a dramatic push occurred in the 1960s (Association for Career and Technical Education, 2002). Educators have long known that creating a talent pipeline from high school into in-demand jobs is necessary and productive, but the concept has yet to be mastered, so that students are maximizing their CTE experiences and are still graduating from traditional high school with a quality liberal arts education. Both education and labor understand that CTE is a valuable and essential part of the hierarchy of both K-12 and post-secondary education pathways; however, changes in programming and funding need to be made to make the CTE pathway more desirable and relevant in contemporary labor markets.

Stigma

Without question, the concept of CTE still holds a stigma that it is subpar to traditional college preparation high school course offerings. In a 2014 study by the American Federation of Teachers, CTE was looked upon as not producing college bound students, being the place where the “bad kids go,” or being the place where students who “can’t handle real education” are found (Ouellette, 2020). Worse yet, as this stigma solidified, CTE became a place where minority and lower-income students were “tracked,” leaving their white, middle-class peers to compete in traditional, college prep high school (Holzer & Baum, 2017). This ideology has become a systemic issue, as parents and educators communicate to students the concept that earning good grades and going to college to earn a degree is the means to a financially successful future (St-

Esprit, 2019). During the 1980s and 1990s, this stigma created a void in CTE enrollment that has hence created a shortage of skilled workers and tradespeople (St-Esprit, 2019).

In 2023, this outdated ideology is a root cause of students missing out on CTE, and the vast earning opportunities that come from the coursework and skills associated with this type of education. The United States Department of Education (ED) explains that CTE education fills a valuable void in the America labor force, where over 30 million jobs are unfilled, with earning potentials over \$55,000 (ED, 2023). Though enrollment in CTE rose in the early 2000s, after the pandemic, educators have witnessed a small decline in participation (CTE Policy Watch, 2021). Skillwork (2023) explains that presently, “there are more Baby Boomers leaving the skilled trades than there are Millennials and Generation Zs coming behind them” (pg. 1). We know that there are high paying employment opportunities in skilled labor, but the question remains how do we get parents and other influential adults to remove the concept that CTE is not a quality education?

A comprehensive public relations campaign must be launched to inform parents/guardians, students, and the community at large of the career and earning opportunities for CTE students. Holzer and Baum (2017) explain that the viable alternative pathways offered by a CTE are a means for sound careers and financial stability.

Curriculum Offerings and Graduation Requirements

To maximize essential knowledge and skills and develop programming that competently prepares students for earning certification and post-secondary\ school employment, the required core battery of coursework needs to be scrutinized. Research shows that CTE programming makes better connections to learning, as it gives relevance, meaning and value to the knowledge

and skills that students acquire (Ouelletter, 20220). The modern job market prefers “tangible” experience over theoretical knowledge; students need to be able to show what they can do, not what they know (Master Coding, 2023). Yet, in the standards driven, high stakes testing environment of contemporary education, a focus is placed on state assessment scores more than it is on building these essential career skills. Additionally, in Pennsylvania, CTE and industry credentials is one of the alternative pathways to graduation, secondary to the preferred method of passage of the state assessment tests.

Students who concentrate in a CTE cluster are more likely to graduate from high school by their expected graduation year than those who did not concentrate in CTE (Ouellette, 2020, pg 1). The research exists to support expansion of CTE education, but as Holzer and Baum (2017) states:

Reviving occupational preparation in high school, but making it appropriate for all students and integrating it with college preparation, is not a new idea. The School-to-Work Opportunities Act of 1994 promoted similar goals, and the associated efforts to provide work-based learning and prepare students for a rapidly evolving labor market appeared to be making a difference. Other directions for reform prevailed in later years, but the incomplete efforts of the past should not prevent us from pursuing more sophisticated efforts in the future (pg 1).

Yet, antiquated graduation requirements and outdated curricular and instruction delivery methods lead students away from the skills and knowledge acquisition of the CTE program pathway. Furthermore, the time constraints of many shared CTE schools make it impossible for students to receive all of the core academics at their traditional home school and complete all certification requirements at their participating CTE. Flexibility in programming needs to take

place, so the CTE students leave their program with the industry credentials necessary for the workforce or advanced training. Within the issues barring this from happening are shared CTE programs, labor agreements, and state graduation requirements.

Dual Enrollment and Certification Programming

Dual enrollment is now a respected and expected part of high school programming. Students earn college credits at the high school level, up to and including associate's degrees, are typical graduation stories; however, as advanced as college offerings are within a high school education, there is still a piece missing in seeing systemic dual enrollment opportunities for CTE students, with limited data on participation and impact:

Dual enrollment and Career and Technical Education (CTE) have their respective origins in different paradigms for educational advancement. Dual enrollment—or the college courses that are taken while a student is still in high school—was initially conceptualized as a way for college-bound students to get more rigorous educational opportunities. On the opposite side, CTE, originally called vocational education, was intended to provide students who were not bound for college an educational alternative that would allow them to directly enter the workplace (Giani, 2022). As CTE has expanded its focus to include more high-skill jobs, there has been increasing attention paid to combining these two models and providing CTE students with access to dual enrollment courses. There is very little research, however, on CTE dual enrollment with limited data on participation and only two studies that attempted to look at the impact of CTE dual enrollment (Edmunds, Unlu, Phillips, Hutchins & Mulhern, 2022, pg. 3).

Current research shows that students who take CTE programming are just as likely to enter post-secondary education as college prep peers; moreover, they are less likely to incur significant student loan debt (Ouellette, 2022). Dual enrollment targets at CTE need to become as common and accepted as college bound programming.

However, the concept of a four-year college degree must change, as technical training associated with CTE can often be done through community college, and through journeyman and bootcamp certification programs (Ouelette, 2020). The opportunities for students to begin their advanced training and study in CTE skills is as essential as offering college bound students dual enrollment opportunities. Programming for CTE students must be expanded.

Funding

No conversation in education can take place without looking at funding allocations and the equity issues of districts to properly develop and sustain programming to prepare students. Like traditional public schools, most funding for CTE schools is derived from local taxes, via local school district tuition, with a standard 12% to 88% split of contributions (Smith, 2023). PA Schools Work (2023) highlights that the zip code where a child attends school dramatically influences their overall course offerings, including exposure to CTE. As the 5th most populous state in the county, the inequity of school funding directly hinders overall educational programming and prohibits schools with struggling economic issues from offering limited to no CTE programming (Lieberman, 2023).

In addition to fixing the inequities of overall funding, specified funding needs to be directed at beginning CTE programs in the middle school grades. In a study by Hanover

Research (2020) on best-practice for CTE programs in middle schools, the following key findings were observed:

- Middle school CTE programs should expose students to a variety of careers and industries, help them explore and develop interests, and develop foundational technical and employability skills that they can continue to build in high school.
- Career exploration should provide middle school students with an awareness of post-secondary options, engage students thinking about the future, and help students make connections between future interests and academic choices and achievement.
- Equitable CTE access requires strategic outreach, messaging, and recruitment efforts that ensure all students receive program information in a language that they and their families can understand.
- Challenges to expanding CTE in rural areas include smaller, more geographically dispersed student populations; less funding; a lack of technology infrastructure; less access to work-based learning and career exploration opportunities; fewer partnership opportunities; and difficulties finding licensed CTE educators.
- Profiled states build middle school CTE programming that exposes students to various careers, includes introductory industry CTE courses, and prepares students for high school CTE pathways (pg. 2-3).

The need to prepare high school students for further education or work in today's high-tech and knowledge-based economy has been well documented (Shaw, Gordon, Xing, & Carroll, 2020), and it must start in middle school to foster deep interest in high school offerings. We know that interest is derived through exposure, and without exposure, students do not know of the CTE career pathways or develop skills adequately to prepare them for such professions. Schools do

not have the funding to develop, with equity, comprehensive middle school CTE programs, and this needs to be a targeted area of funding support.

Within current high school offerings funding issues also exist. Dembicki (2022) highlighted that running CTE programs are very expensive, requiring expensive equipment and advanced training, as well as necessary student support services and career counseling. At the federal level Perkins V is the Main source of CTE funding and it has seen minimal to no increase (Dembicki, 2022). At the state level, over the last three Pennsylvania budget cycles \$6 million has been allocated for CTE, and this needs to dramatically increase (Smith, 2023).

Within the underfunded budget parameters of contemporary CTE the following issues need further funding source:

- Districts with high rates of participation have significant costs associated with CTE tuition. Additional funding needs to be made available to offset the increased expenditures for having large numbers of students in the CTE programming, especially when it benefits the local economy and talent pipeline for labor and industry.
- Current school budgets do not allow for the necessary equipment to be purchased to give students the necessary skills to directly enter the workforce to progress to advanced studies in CTE fields.
- Cooperative work experience needs to be expanded to further the pipeline of support for local labor and industry.
- Funding needs to be built in for transportation costs to/from part-time CTE programs and to work experience for students.

- Science, technology, engineering, and mathematics (STEM) opportunities need to be expanded in all of K-12 to give students the hand-on application of skills needed for the CTE fields.
- Cooperative work experience and apprenticeship programs need to be supported for hand-on, real world experiences for students.

Within the suggestion, it needs to be systemic funding, not a series of competitive grants, where too often the already underfunded schools continue to “lose out” to more affluent districts. Investment in CTE programs requires an initial funding source to establish the program, buy equipment and train staff, and then annual funds to grow the program and replace antiquated equipment with those reflected in industry standards.

Summary

In 1960, then candidate John F. Kennedy said, "The continuation of federal funds for vocational education at the full amounts authorized by existing law is vital to the security and economic health of our nation" (Association for Career and Technical Education, 2002, pg 32). Students have solid career and financial opportunities with a CTE education - the stigma must be removed, curriculum needs to be updated and modernized, graduation requirements need to be scrutinized, dual enrollment and certification programming for CTE must be expanded, and funding needs to be equitable and systemic. As PA Schools Work (2023) states, “Career and Technical Education (CTE) prepares students for successful careers and lifelong learning through higher-level skills and knowledge to enhance our workforce competitiveness in the 21st century global economy” (pg. 1). Positive promotion of CTE education, rigorous course offerings and requirements, and proper program funding are necessary to contribute to a

productive labor industry. It is also educationally responsible and in the best interest of students and society at large. Please make this a priority in education policy.

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**Testimony of
Dan Kuba, Deputy Secretary for Workforce Development**

Workforce Development Investments: Career & Technical Education

Tuesday, August 29, 2023 at 10 a.m.

Good morning, Chairman Bizzarro and members of the House Democratic Policy Committee. Thank you for the invitation to join you this morning to discuss the value that career, and technical education centers bring to our workforce development system.

I'm here today in my capacity as the Deputy Secretary for Workforce Development – a role that puts me at the center of a very large network of local, regional and state-level organizations focused on preparing Pennsylvania's workforce for good jobs in an ever-changing economy.

But 23 years ago, I was a veteran in the rural Pennsylvania town of Hazleton, and I was looking for a fresh start. Thanks to a state veteran representative who helped me find my own passion for serving Pennsylvania workers, I got that fresh start as a case manager in the PA CareerLink in Shamokin which led me on a journey to where I am at today.

My long career in workforce development has taught me a few things.

First, there is no one-size-fits-all approach to meeting the needs of Pennsylvania workers and employers. There are always differences from person to person, business to business, community to community. So, we have to design services that are targeted, deliberate and flexible.

Second, I've learned that the labor market and the overall economy change faster than anyone ever expects them to. Think back to the Great Recession, when the competition for a job – almost any job – was fierce.

In 15 short years, that dynamic is entirely reversed. Today, employers are competing fiercely for talent and workers – perhaps for the first time in many decades – have the opportunity to be selective about who they work for.

Our workforce development system must be responsive to the reality of today – and the possibilities of a very different tomorrow.

As you likely know, Governor Josh Shapiro is passionate about career and technical education and opportunities for young people – opportunities that don't always result in a four-year degree but are nonetheless vital to our Commonwealth's success. Students who are interested in the trades should have the chance to explore those options in high school. That's why we're investing in pre-apprenticeship and the Schools-To-Work program.

Due to the flexibility of the structure of pre-apprenticeship and the fact that employment is not a required element, pre-apprenticeship remains the flagship process to serve youth currently in school, allowing them to start their journey into an apprenticeship program and giving them career exposure and opportunities that those not going through a pre-apprenticeship would have.

As a result, we have successfully approved pre-apprenticeship programs as an alternative pathway to graduation through Act 158, as students learn valuable, transferable skills for their success as a citizen and in the workplace.

Earlier this month, Governor Shapiro signed into law a commonsense, bipartisan budget that delivers on his top priorities to create a stronger economy, safer and healthier communities, and better schools.

This budget makes historic investments in Pennsylvania children's education, supports businesses, and strengthens communities. It also helps ensure more Pennsylvanians have the freedom to chart their own course by expanding our workforce, investing in vo-tech, and supporting apprenticeship programs.

This budget includes a **\$30.4 million additional investment in workforce training and vo-tech programs, including:** .

- **\$6.5 million investment in apprenticeship and pre-apprenticeship programming** that will lead to family-sustaining wages and career mobility.
and
- **\$3.5 million in funding for L&I's Schools-to-Work Program** to develop and expand career pathways for high school students via partnerships between schools, employers, organizations, and the Commonwealth.

These increases match or exceed what Governor Shapiro proposed in his budget address in March – evidence of the Administration's commitment to invest in the jobseeker's pathway to fulfilling and sustaining careers.

Most recently, Governor Shapiro announced a significant investment in workforce development with the creation of the Commonwealth Workforce Transformation Program (CWTP). The CWTP, created by Governor Shapiro's [executive order](#), will create new opportunities for Pennsylvania workers and help expand the Commonwealth's workforce by providing grants of up to \$40,000 for each new employee hired and trained in Pennsylvania for critical infrastructure projects, up to a maximum of \$400,000 per contract or award for organizations doing work funded by President Biden's Infrastructure Investment and Jobs Act (IIJA) or the Inflation Reduction Act (IRA). **The CTWP will be housed within L&I, and we are excited at the possibilities that lie ahead.**

In addition to the budget investments and program developments, Pennsylvania's Department of Labor and Industry continues to provide grant funding to address barriers to employment across the commonwealth, like broadband access.

According to the Pennsylvania Broadband Development Authority's (PBDA) master plan, at least 2.6 million Pennsylvanians living in 1.3 million households do not have access to internet or the skills to use technology. Last week, the Pennsylvania Department of Labor and Industry (L&I) announced nearly \$800,000 in investments to strengthen registered pre-apprenticeship and apprenticeship programs to help train more workers with the skills needed to build broadband infrastructure and extend access to reliable, affordable high-speed internet across the Commonwealth.

This initiative will help build a skilled workforce that is capable of achieving broadband expansion across the Commonwealth and improves access to alternative career pathways that pay family-sustaining wages – especially in rural Pennsylvania where the digital divide has a significant impact on individuals' ability to find, obtain, and maintain meaningful employment.

The earn-while-you-learn apprenticeship model offers workers the opportunity to obtain a set of in-demand skills while at the same time earning a paycheck. For employers, it is customizable education that builds the very talent pool they need to be competitive in the market.

Thank you for the opportunity to provide an overview of our workforce system and highlight some of our successful programs and historic investments. We believe that a collaborative effort is necessary to support career and technical education centers in training the workforce of tomorrow.

At this time, we would welcome any questions you may have.