Career and Technical Education: Setting the Standard in Pennsylvania
Every student is unique, and their educational path should reflect that. That path may include pursuing a four-year degree, joining the military, or obtaining an industry-based credential.

Each year thousands of Pennsylvania students will have already earned higher education credits, completed a preapprenticeship or gained on-the-job skills before graduation, thanks to the career and technical education (CTE) path they chose in high school. Pennsylvania students should be able to pursue the coursework and learning opportunities that allow them to progress down that path.

**CTE is key to ensuring that Pennsylvania properly educates and prepares a workforce to immediately enter a competitive economy, boasts a guaranteed return on investment for our state’s businesses, and should be available to all public school students.**

Policymakers must continue to make sustained investments in CTE. Funding for CTE, which is heavily reliant on state share, is inherently tied to adequate funding for basic education in Pennsylvania. While recent investments in basic education funding and the enactment of the basic education funding formula are notable achievements, without significant infusions into basic education funding, CTE funding will continue to lag.

This report is aimed at exploring how CTE funding is structured in other states and providing recommendations for how Pennsylvania can become a national leader on education to workforce preparedness.
Impact of the COVID-19 Pandemic

The COVID-19 pandemic has created additional challenges in K-12 education, and CTE is no exception.

The public education system has experienced unprecedented challenges. Stay-at-home orders required schools to close without notice or the ability to adequately plan, forcing swiftly developed distance learning measures with limited national and statewide guidance.

Many children and families were unable to access adequate internet connections or proper equipment, which created a digital divide. Unfortunately, districts were left to figure out ways to provide necessary technology, or alternative education measures, without the additional financial support to do so.

While the challenges were experienced at all levels of public education, career and technical education centers (CTCs) have a unique set of circumstances to consider regarding the health and safety of students and staff:

• Remote learning is a challenge. While some curricula can be taught virtually, much of the coursework at CTCs is hands-on. CTCs provide access to necessary equipment and technology that cannot be utilized virtually.

• Incurring new costs for equipment or other essential items could not be predicted. For example, costly welding helmets would be shared by students under normal circumstances, but now one is required for each student. These unique costs come with no additional financial support.

• CTCs are required to develop independent health and safety reopening plans, but are at the mercy of each district that sends students to the program. Most CTCs educate students from multiple districts with differing individualized plans. This includes varying start and end times, as well as transportation procedures. There has been no consistency or best practice standard requiring collaboration between CTCs and districts – some have a partnership and others have virtually no contact.

• Budget restrictions, including loss of state and local revenue, coupled with no increase in the CTE line, will further limit student access to CTCs. Districts remain the sole decision-maker in contracting with CTCs for student enrollment. As district funding becomes more complicated, this could lead to a reduction in sending students, or which students could be eligible for programming at CTCs. Prior to the pandemic, there was the issue of a student’s desire to attend a CTC and the district’s ability or agreement. This issue is now further exacerbated.

• Shifts in industry demands have the potential to create new job clusters and others that may regress. Increased unemployment rates, as a result of the pandemic, may cause a needed analysis of what businesses are essential, subsequently impacting CTC offerings.

• Now more than ever, it is important to continue investing in CTE, as the workers deemed essential during the pandemic are often CTE program graduates. This includes in-demand career clusters such as transportation; distribution and logistics; and architecture and construction. Additional fields, such as health care workers, veterinary assistants/technicians, and advanced manufacturing are in demand now more than ever due to the pandemic, and CTE programs are the pipeline for providing these workers.

The Pennsylvania legislature and Governor Tom Wolf acknowledged the value of CTE and increased its funding by a cumulative $20 million in the 2018-19 and 2019-20 budgets, equivalent to approximately 3% of the state’s education budget.

- In 2018-19, as a part of the broader PAsmart Initiative, Governor Wolf focused on elements like STEM education and included a $10 million increase in the CTE subsidy line.

- An additional $10 million was allocated in 2019-20, with $7 million going to the CTE subsidy line and $3 million going to the CTE equipment grant line.

This progress came to a grinding halt for the 2020-21 proposed budget. While the governor’s state budget address in February 2020 was filled with references to a 21st century workforce and the need for a vibrant, economically competitive Pennsylvania, no funding increase for CTE was included in the actual proposed budget.

In 2019-20, we called for an additional $10 million investment in CTE, similarly structured to the 2018-19 investment. The governor’s ask for basic education funding, along with local taxes as the principle source of funding for CTEs, was a less than inflationary increase of $100 million.

As a result of the coronavirus pandemic hitting in the last months of the 2019-20 school year, the state’s public education system was forced to wade through unprecedented challenges, including pausing operations, loss of local revenue, and risks to loss in state funding. In May 2020, the legislature and Governor Wolf passed a stopgap budget providing 12 months of funding at fiscal year 2019-20 levels, including career and technical education.

Moving forward, PPC, in conjunction with PA School Works (PASW), urge the governor and General Assembly to increase funding in the 2021-22 state budget for CTE and consider the significant return on investment: a $10 million ask in a $34 billion state budget in exchange for preparing students for a 21st century workforce and economy.
Ensuring career and technical education is adequately funded is only a piece of the puzzle. Much like funding basic education, states have varying approaches for investing in CTE and how to structure it. Following these steps will allow Pennsylvania to lay the foundation for a national standard.

Funding for career and technical education is set forth through the Secondary Career and Technical Education Subsidy (SCTES), as described in section 2502.8 of the public school code. Crafted in the mid-1960s, the law has been amended several times since, and identifies a specific formula to drive funding to support programming. The current appropriation level stands at $66.6 million for the SCTES in the state budget for the 2020-21 fiscal year, level-funded at the same rate as the 2019-20 allocation. The subsidy represents 8% of the total portion of funding.

Additionally, a small portion of CTE funding is driven through federal Carl D. Perkins funding, but this level of support represents only 2% of the total budget; local district support comprises 90% of funding, presenting enrollment challenges for opportunity and inequities. Although there has been an infusion of $17 million over the past two budget cycles and the CTE formula is “fully funded” presently, we also know the need for CTE is not being met. The state share of CTE funding continues to hover around 8%, leaving school districts to shoulder the burden of the financial cost of sending students to CTE programs. Anecdotally, this leads to school district decisions to cap enrollment to CTE programs, or, in our current fiscal environment exacerbated by the pandemic, may prompt them to look to other ways to curb CTE-related spending as a way to bring district budgets into balance.

Most recently, to support CTCs with their health and safety reopening plans, Governor Wolf issued $10.5 million from the Governor’s Emergency Education Relief (GEER) Funds. GEER funds were authorized by the CARES Act and included $104 million for Pennsylvania independently. However, the GEER funds allocated to CTCs are a one-time allotment and will not assist with ongoing specialized needs.

This speaks to the need to fix the capped allocation to allow increases in SCTES investments. While often referred to as being “fully funded”, the CTE formula contains artificially low multipliers that limit the infusion of new investments. It is not an indicator of the demand for CTE from students, or the need for additional state support for CTE programs. The CTE subsidy in Pennsylvania uses low multipliers in comparison to other states, with Pennsylvania’s being the lowest. CTE weights range from 0.17 in Pennsylvania to 0.35 in Texas.

In order to allow for additional growth in the subsidy line, the CTE formula must be statutorily amended to increase

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its multipliers. Our initial estimate is that increasing the multipliers to 0.29 from 0.21 for CTCs, and 0.22 from 0.17 for districts that provide CTE on campus would increase the subsidy by approximately $25 million.

This further speaks to the need for examining how to more comprehensively fund CTE moving forward, whether through the SCTES subsidy line, adopting a weight for CTE within our basic education formula, or adopting creative provisions utilized in other states to better support and increase access to CTE.

Per the 2020-21 school code bill, the Basic Education Funding Commission (BEFC) is not required to reconvene until 2022 or submit a report until 2023. In advance of that meeting, it is important to explore whether adding the weight to the basic education funding formula is advisable as a long-term method of funding CTE.5

PASW campaign partner, the Pennsylvania Association of Career and Technical Administrators (PACTA), has advocated for this approach. PACTA argues that it takes the price tag of CTE and attaches it to the student, or creates a “pay for us” mentality – putting school districts in the predicament of capping enrollment to control costs.6

Texas includes a CTE weight in its basic education formula, resulting in 35% more allocated funding for each CTE course in which a student is enrolled. The value in this approach is that it allows the funding to naturally increase or decrease based on CTE enrollment and may prevent enrollment gaps or budget cuts. It also accounts for the higher costs associated with providing many CTE programs. Kansas, Alaska, Florida, Georgia, and Wyoming also approach funding in this way.

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Equipment Grants

In 2019, PPC toured CTCs across the state and repeatedly heard about the importance of funding for equipment – chairs for dental assistant programs, heavy equipment engines for machinists, or tools for carpentry students. CTCs have equipment needs that are costly and need to be updated frequently to ensure students are trained appropriately to prepare them for current industry standards – this can be a barrier for local CTCs to both establish and maintain a program. Equipment grants allow CTCs to purchase equipment aligned with the needs of local employers for use in PDE-approved CTE programs to provide hands-on training to students enrolled in programs. The maximum amount of one grant is $50,000 and each grant requires a dollar-for-dollar local match, from either the local school or CTC or a local business or industry partner.

The equipment grant line in the 2019-20 budget received a $3 million increase and deserves further attention as it is an essential component of ensuring an adequate learning environment. PA Schools Work calls for additional investments in the equipment grant line moving forward as a holistic approach to improving how we fund CTE.

As presented in Basic Education Funding Commission testimony in 2017, the Pennsylvania Association of Career and Technical Administrators articulated that the equipment cost need is far more than what is provided through competitive equipment grants and in the equipment grant line. For many CTCs, the only source of funding for these specialized needs are the PDE competitive equipment grant and the supplemental funding allocated by the legislature.
Step 2: Adapt best practices from other states to fit Pennsylvania’s needs

PPC has analyzed other states’ approaches to funding career and technical education. These approaches are quite varied and there is no one solution to addressing every financial consideration of CTE, and more broadly, basic education funding. We must review successful approaches taken by other states to augment their overarching funding systems while continuing to invest in our state CTE subsidy line and equipment grant line.

According to the Association for Career & Technical Education (ACTE), in 2019, 41 states enacted policies impacting CTE funding – the most legislated policy area for CTE for the 7th year in a row.

State approaches to funding CTE programs vary, with some states providing no dedicated funding for CTE while others allocate state funds to CTCs through several different approaches. Examples of funding for centers includes:

- **Foundational funding only.** Local CTE programs are financed out of general state aid formulas that provide no earmark for CTE. Because allocations to Local Education Agencies (LEAs) and Institutions of Higher Education (IHEs) are independent of student participation in CTE, local administrators must decide how funds should be distributed across instructional priorities.

- **Funding for area CTE centers.** Dedicated funds are provided to support programming at area CTE centers that deliver CTE services to part-time students. CTE services offered in other locations in these states, such as at comprehensive high schools or community or technical colleges, are supported through a state’s foundational funding formula.

- **Categorical funding.** Dedicated funding for CTE programs that is distributed to LEAs and IHEs to support career-related instructional services. These approaches, which may include student-based, cost-based and/or unit-based formulas, typically target state funding for the exclusive use of CTE programming. Pennsylvania aligns most closely with categorical funding.

Pennsylvania would benefit from exploring the foundational structure of the CTE subsidy, equipment grant lines, or a combination of new approaches to bolster support for CTE programming, as the current environment of constrained state budgets is compounded with uncertainty for public school systems, including CTCs.

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GEORGIA

The focus is on rural or high poverty middle schools and juvenile justice. There is a specific allocation of funding focused on five juvenile justice campuses to provide for expanded program offerings. Funding was allocated to support the increased salaries of teachers and certified employees educating youth in detention centers.

Additionally, Georgia has increased funding for middle school coding labs in either high poverty or rural areas to build teacher capacity around computer science education. Georgia also has a four-year strategic plan, which focuses on the expansion of career development and CTE opportunities in grades K-12.

FLORIDA

Florida utilizes funding to reward schools and teachers based on student outcomes in CTE, such as attainment of industry credentials. Incentive amounts are based on the value of the credential, determined by industry demand, postsecondary transferability, and other factors.

This approach aims to improve overall student outcomes while also allowing higher-performing programs to grow and serve more students. It also focuses on qualitative outcomes.

OREGON

Oregon saw a $7 million increase to the CTE Revitalization Grant Program - a purposive concept designed to support student engagement and success, completion leading to career and college preparation, and a potential boost to local/regional economic development. Included in the grant are requirements for districts to engage with collaborators within the local and regional community to help improve attendance, access, equity, and completion for the benefit of all students, including but not limited to historically underrepresented populations who have not traditionally enjoyed access to and success in career and technical education.

Oregon also established a major revenue bill referred to as the Student Success Act which developed a corporate activity tax of which CTE initiatives can be one of the beneficiaries.

TENNESSEE

Tennessee enacted several pieces of legislation focused on the expansion of CTE programming and services beyond high school. Legislative highlights include:

- Development of a state plan for computer science in K-12 to ensure access to computer science courses, integration into elementary education, counting completion as a core admission requirement at state institutions of higher education, as well as increasing the number of under-represented student groups earning college credit in computer science while still in high school.

- Extension of CTE to grades 6 through 12, which requires the state board to develop the facilities plan for middle school students. Additionally, that CTE programs can be provided to middle schoolers in middle school or high school facilities and extends career counseling to 6th grade.

- Approved $25 million to incentivize collaboration among higher education institutions, K-12 schools and economic development partnerships for projects that use local data to identify workforce needs and develop a sustainable plan incorporating equipment, work-based learning experiences or recognized industry certifications to increase the state’s competitiveness and meet postsecondary attainment goals, with priority given to economically distressed and at-risk counties.

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Step 3: Improve data collection, analysis, and utilization to better inform decision-making

The amount of available data surrounding CTE outcomes pales in comparison to other metrics on child well-being and, more specifically, the K-12 education space. Career and technical education centers (CTCs) are required to report data directly to the Pennsylvania Department of Education (PDE) in tandem with the school districts that feed into the centers. This data populates a variety of reports and online publications, but is segmented and does not sufficiently communicate Pennsylvania’s CTE outcomes. As the KIDS COUNT grantee for Pennsylvania, PPC calls on the state to ensure better datasets are captured on an annual basis, in a disaggregated manner, so that we can make better informed policy decisions moving forward. PDE should provide a comprehensive, statewide annual report that is easily digestible and available to the public.

One way we can seek to identify and work toward improved access, quality, and outcomes of CTE programs and centers is through robust data collection efforts. Data is important, not only to CTE programs and advocates, but especially important to parents, caregivers, and the public. Partnerships are key to the identification, collection, and dissemination of publicly available data that is easy to digest for the general population. Policymakers must also be afforded this information, as they are key to enacting policies surrounding CTE.

Information about the quality and outcomes of CTE programs, including credentials earned, is limited, leaving families, students, and policymakers to make critical decisions in the dark. Pennsylvania captures information on CTE performance in several ways. One snapshot of outcomes is provided through the Future Ready PA Index. Some of the indicators included are graduation rates, career standards benchmarks, and industry-based learning measures.

More comprehensive data is included in the annual Act 117 report and the consolidated annual report. However, these reports are large data submissions, which do not adequately articulate statewide outcomes or identify systemic needs. Furthermore, the data is not disaggregated by race and ethnicity, and does not seek to gain a better understanding of gaps in the system.

One way we can work toward better understanding the outcomes of CTE would be through an annual statewide report, disaggregated by race and ethnicity, that looks at differing approaches to CTCs versus district-provided CTE. This report should be made available to program administrators and advocates, parents and caregivers, the public, and policymakers. Transparency leads to better partnerships and overall improvements in outcomes.

Meaningful gains in career and technical education in Pennsylvania have been made in just a few short years thanks to the legislature and Governor Wolf who have strengthened the ability of districts to support CTE and recognized the value of CTE in both the CTE subsidy line and the equipment grant line.

But we haven’t addressed core issues such as a school’s ability to cap enrollment and limit access for kids, the overall burden still placed on local school districts to fund CTE programs, or the core question of whether the commonwealth’s approach for improving CTE quality, access, and funding is adequate.

The unprecedented strain of the coronavirus pandemic has placed enormous pressure on schools to deliver the quality education every student deserves. This includes budgetary issues; equity; and student, educator, and administrator safety. It is a stressful time to assert long-term, aggressive funding recommendations, even for popular policy recommendations like CTE.

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15 Kowalski, P. (2019, February). Data is the key to making CTE work for students. Data Quality Campaign. https://dataqualitycampaign.org/data-is-the-key-to-making-cte-work-for-students/
Making Pennsylvania a National Leader for Career and Technical Education

- Continue to make sustained, achievable investments in the subsidy and equipment grant lines. We cannot backtrack by cutting investments. To do this we must statutorily amend the CTE formula to adjust its weights and allow more funding to be infused.

- Make a concerted effort to more adequately fund basic education. As long as overall school district finances are constrained, with 90% of funding coming from the local level, CTE will continue to be negatively impacted.

- Research the benefits of whether the state should add a CTE weight to the basic education funding formula as a long-term funding solution, for consideration in the 2022 reconstitution of the Basic Education Funding Commission.

- Explore new and innovative approaches, such as targeting in-need or underserved populations, including students in poverty, or those served in the child welfare or juvenile justice systems, and examining the needs of other underserved populations.

- Develop a robust, easily digestible, and widely available statewide annual report to help identify sound policy solutions for improving outcomes for students who wish to explore or enroll in career and technical education programs.

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