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## **The Importance of Career and Technical Education**

**By Gregory Tyler**

According to Dr. Imed Bouchrika, the chief data scientist contributing to the foundation of the academic research portal Research.com, 62% of the high school students who choose not to seek a higher form of education say it is due to the prohibitive cost of tuition. Students nowadays are looking for ways to make a living without spending their time and most importantly, money on a four-year degree. The best solution to this is to introduce them to career and technical education (CTE) programs while they are in high school. As someone who has experienced a CTE program first-hand for three years, I feel very strongly about the benefits it has to offer. These programs can provide students with an opportunity to learn how to make a living with their hands and possibly give them the chance to earn money while learning skills that will help them to form careers. Ideally, all high schools in America should have a career and technical education program to provide students who do not excel in core academic subjects with a way to be successful without going to college. Not only would this provide students with a way to make an honest living without a four-year degree, but also help to provide people with services that are used on an everyday basis. This is why school board officials should begin the process of bringing technical education to the classroom.

The Smith-Hughes Act of 1917 allowed for federal government funding to be given to public schools who introduced vocational learning as subjects available to boys and girls. (Cuban) CTE is best described as a course that allows the student to receive hands-on training and experience from professionals in a certain field, to prepare them for a possible career in the future. Examples of a CTE course would be Carpentry, Electrical, Heating Ventilation and Air

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Conditioning (HVAC), Automotive Technology, Machining, and Nursing. There are also many different learning styles, but the three main categories are visual, auditory, and kinesthetic.

Visual and auditory are as they sound, being that the students learn through what they see and what they hear respectively. Kinesthetic learners are students who best comprehend knowledge through a more hands on approach. According to the National Library of Medicine only 5% of high school students are considered kinesthetic learners. However, it is still important these students are provided with an equal opportunity to succeed. CTE courses are mostly hands-on, offering physical instruction which will, if anything, encourage the students to work harder because they can more easily grasp the concept. Many CTE programs set upper class students up with the opportunity to do cooperative learning, often referred to as Co-op, where they go to school for half the day and then spend the other half working in their field. Whether it be on jobsites, studying under a professional as an apprentice, or as an entry level employee for a company. This allows the students to get on-the-job training while getting paid, as well as allowing them to decide if it would be a career they might want to pursue. Giving students the option to use their hands to create something that aligns with their own personal interests will give them an opportunity to learn necessary skills that will sustain them throughout their lives. Offering CTE courses also allows students to have something they can look forward to at school as they are learning skills that they are invested in personally. It also gives purpose to students who struggle in other academic subjects so that they are set up to succeed after high school.

As stated earlier, not all students learn and comprehend information in the same way; this is why it is crucial that every student in America is presented with an opportunity to learn in a style that best suits them. Nowadays high schools dedicate most of their resources towards getting good marks on standardized testing scores which can be detrimental to the development

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of students who are not proficient in the core subjects of Math, English, and Science. According to the National Education Policy center an upwards of \$1.7 billion is spent on standardized testing in the United States every year. This dollar amount shows where schools' priorities are which means there is a lack of attention for students who struggle with standardized testing topics. CTE is not an excuse for these students, it is a way to highlight their other skills and show them that they have opportunities to be just as successful as anyone else. These courses also do not just get rid of math and sciences, these subjects are still very crucial to trade career paths. However, in CTE classes they can be taught in more practical applications, meaning the student can directly see how and when to apply certain skills and their importance. School systems are interested in pushing what they are rewarded for whether it is for the greater good of the student body or not, and it is time for this to be addressed.

Another important aspect of CTE at an early age is career preparedness. In 2018, Pennsylvania Governor Tom Wolf stated that "CTE students leave high school with a clear vision of where they want to go next in life and what it takes to get there." CTE courses are often taught by former industry workers, meaning they can provide their firsthand knowledge of what it takes to be on the jobsite for a specific trade. This allows them to instruct the students with examples of their past work experiences so that students know what to expect upon being hired. CTE is also a fantastic opportunity for students who may not be able to afford a post-secondary education. With the right knowledge and demonstration of skills, students can join the workforce right after graduation. This way their success in life is not determined by how deep their pockets are but by their skills, and character. If CTE students would like to pursue a degree, there are numerous trade and technical schools that solely specialize in vocational learning. These schools are often anywhere between 18–24-month programs, meaning less time spent on general

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education classes that do not pertain to the field of work a student wishes to work in. With less time spent at a school means less money spent on tuition. Trade schools' tuition rates are on average 15% lower than average tuition rates of a 4-year college or university in the United States.

Finally, one of the many positive aspects of CTE learning is job stability. While some desk jobs may become obsolete in the future due to the increasing capabilities of AI, this will not be the case for the trades. Years down the road there will still be a need for skilled tradesmen and women. A study from 2021 by Skillwork, a company who specializes in helping people to find trade jobs, projected five of the major trade industries job demand to increase by an average of over 90,000 by 2031. Also, upon graduation from high school or a secondary vocational program there is no doubt what industry these students will be working in. They will have an extremely specific set of skills needed by numerous employers. As opposed to graduating from a university into a highly competitive field that may take you years to get into. This might mean time spent working a job you may dislike or one your education did not even prepare you for. Computers, AI, or any other kind of innovative technology will be unable to take the jobs of skilled trades workers. There will always be a need for plumbers, construction workers, and electricians. People who can conduct the physical tasks that allow others to go about their daily lives.

There are beliefs that implementing these programs will cause a rise in taxes to help fund them. While this is a fair assessment to have, as no one wants to pay money for something that does not directly affect them, there are alternatives to funding these programs. Such as reaching out to local businesses within certain industries that align with the school's CTE classes, as they may be willing to make monetary donations or provide the program with supplies for the students to get the best possible training. This is a viable solution because these companies are

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future employers. They want to provide the next generation of workers with the tools needed to succeed. Another solution could be the manufacturing and distribution of student-made products. At my high school, multiple CTE classes, of different concentrations, worked together to create a small business where they would design, manufacture, and sell machined products. The profits would then be used to help fund all the programs, as well as give students valuable real-life experience. While it may not cover every expense the program incurs, it will go a long way in helping to mitigate some costs. These are not the only solutions, but they are viable funding options without raising tax rates on citizens within the community.

There is also an argument to be made that not every student would be interested in pursuing a career in the trades so why should they have to take one of the classes? These programs, while they are offered to everyone, do not need to be a required class. Incoming first-year students would ideally take a course where they spend a little time in each of the CTE courses, maybe a few weeks, then rotate to the next one. This could assume a semester or the year, then the following school year, the students could decide for themselves whether they want to pursue one of the trade programs or not. Allowing the students to spend a little amount of time in each of the classrooms, getting to know the teacher, and learning some basics about the course will allow them to make an informed decision on whether it is something they would like to pursue at the next level.

These are the reasons why I feel Career and Technical Education should be in every high school in the United States. CTE courses allow students to tailor their learning in a career-oriented manner, meaning they are spending time on something that interests them and they want to pursue at a professional level. This is why there needs to be a call to action, in any areas where students are not being provided with an opportunity to take part in this effective way of learning.

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A call for students, parents, and local employers to write their school boards and demand these services be provided. Not only will these future workers be set up to succeed in the future, but their knowledge will be helpful in the communities they work. The normalization of vocational learning will also help to get rid of the stigma that CTE is for the uneducated and only leads to dirty, arduous, and unsafe jobs. Help to be a part of the change that will have a lasting impact on this country for generations to come.

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