

**Ohio Senate  
Finance Committee  
Senate Bill 376 Proponent Testimony  
November 18, 2020**

Chairman Dolan, Vice Chairman Burke, Ranking Minority Member Sykes and members of the committee, thank you for the opportunity to speak before you today.

My name is Carrie Herringshaw, and I am the Treasurer at Penta Career Center in Perrysburg, Ohio, and have held this position since 1990. It has been an honor and a privilege to serve on the Cupp-Patterson School Funding Workgroup as a member of the whole committee and as a member of the Educational Service Center/Career Technical Education/STEM subcommittee. Jerry Brockway, former superintendent at Ashtabula County Career and Technical Center and long-time school administrator, is also a member of this subcommittee.

**CAREER TECHNICAL EDUCATION**

Ohio is one of the few states in the nation with a comprehensive career technical education system. Career technical education in Ohio

- offers high school programs that meet the needs of employers in the local economy
- prepares students to enter the workforce with credentials that allow them contribute immediately to an employer, seek additional training, or go to college
- provides multiple education pathways that emphasize high quality career and college readiness
- is responsive to the needs of business and industry
- is designed to provide flexibility in programming to meet the needs of business and industry

Career technical education is provided at the high school level in three formats:

- Career technical centers (formerly Joint Vocational School Districts-JVSDs) – area school districts joined to form an independent district to exclusively provide career technical courses/programming to the member school districts
- Comprehensive – traditional school districts that provide career technical programming to their own students
- Compact – districts who have partnered to provide career technical programming to students in those partner districts (programs are located within partner district facilities)

Ohio career technical education providers serve over 70,000 FTE students (slightly over half in career technology centers and the remainder in comprehensives and compacts). Career technical education reaches well over 200,000 students in the state of Ohio each year.

### Challenge

Ohio employers have thousands of positions that they are unable to fill with qualified candidates. In May 2018, the Cleveland Plain Dealer reported on a study by Team Northeast Ohio that said “plenty of good-paying jobs go unfilled in Northeast Ohio because job seekers lack the credentials to hold them...” In addition, they found a “particularly acute misalignment in IT, healthcare and manufacturing.”

A Cleveland TV station reported in August 2019 that “the manufacturing industry is facing a shortage of skilled workers with millions of jobs possibly going unfilled for decades...” and one company executive said, “We don’t even have enough people to fill the positions related to growth let alone what we’re experiencing from attrition because of retirement.” This is being heard anecdotally across the entire state.

Career centers and comprehensive districts and compacts that have career technical programs are able to provide trained individuals who are prepared to enter the workforce upon graduation in the fields of IT, healthcare and manufacturing as well as other fields. Students are prepared for entry level positions, and many times have industry based credentials in their hands when they graduate. While many misconstrue a career technical education to be limiting, many employers want to hire workers who have basic skills then provide further training or even pay for college (and this in turn helps reduce the amount of money some may have to borrow to pay for college).

A career technical education does not limit a student’s potential, it only enhances it. Whether the student opts to immediately enter the workforce, seek additional training or go to a two- or four- year college, the student is prepared for any of these options and is prepared to be successful regardless of the path the student may choose.

As Ohio’s economy rebounds from the effects of COVID-19, career technical education will continue to prepare students for highly technical jobs that require specialized skills and training:

- Ohio’s career technical educators are ready, willing and able to be a part of expanding career technical programs to reach more students
- Career technical education is delivered through programs that best meet the needs of students and business and industry

Career technical education is a program of choice for high school students and their parents. While we all know that college is not for everyone, we realize a career technical education is not for everyone either. But, we believe that all students should be exposed to the opportunities career technical education has to offer and make an informed decision based on short term and long term career goals, earnings potential, and other factors that provide a realistic and achievable path for career and financial success.

To this end, career development programs are extremely important for students in kindergarten through 12<sup>th</sup> grade. Exposure to various career pathways in elementary and junior high school and throughout high school will allow students to be more aware of career opportunities whether they relate to attending career training at the high school level, a two-year technical training program or a four-year college.

Career development programs will allow students to explore their interests and see how they relate to potential career choices. A career development/exploratory program will:

- Provide a common, consistent curriculum to students across the CTPD over a student's school career
- Assist teachers in providing a career development curriculum to students
- Create a Career Development plan for each student that stays with that student for the duration of his/her K-12 career
- Provide opportunities to students to engage in meaningful and relevant activities across all career pathways at each grade level
  - Career fairs
  - Hands-on experiences
  - Job shadowing

### Current Funding Model

The funding model prior to FY20 for career technical centers was similar to that of traditional school districts including the base amount of \$6,020 per pupil. In addition, districts providing approved career technical education courses received supplemental CTE funding (also known as tiered funding or weighted funding) which allowed for an additional amount to cover the additional costs of providing a career technical education (i.e. supplies, materials, equipment).

While all career technical centers, like all of K-12 funding in Ohio, are on the guarantee, the funding status of 49 career centers in March 2019 was:

- 13 career centers are on the cap (27%)
- 22 career centers are on the guarantee (45%)
- 14 career centers are on the formula (29%)

## Senate Bill 376

The recommendation for Career Technical Education from the School Funding Workgroup with input and consideration from all career-tech stakeholders including the Ohio Association of Career Technical Superintendents (OACTS) and the Ohio Association of Career Technical Education (Ohio ACTE) is as follows:

1. Update and provide basic aid in the same manner as the proposed K-12 funding model
  - a. While student is in his/her career technical program (lab), pupil teacher ratio will be calculated at one teacher for every eighteen students; otherwise pupil teacher ratio will be calculated as indicated by the Base Aid calculation at each grade level
  - b. “Specials” for career centers will be replaced with “health and physical education, employability/soft skills, development and coordination of internship/job placement, career technical student organization activities, pre-apprenticeship/apprenticeships coordination, testing (i.e. web exam/work keys/ industry credentialing)
  - c. “Co-curricular including Athletic Director” will be replaced with “career tech curriculum specialist/coordinator, career assessment/program placement, recruitment/orientation; student success coordination, analysis of test results, development of intervention/remediation plans and monitoring of same; satellite program coordination
2. Continue to provide supplemental career technical (tiered or weighted) funding and convert the current dollar amounts to weights (or percentages)
3. Fund Career Technical Planning Districts (CTPD) to deliver relevant career awareness programs to all K-12 students within the CTPD in the amount of \$10/student in the CTPD

**Our overall recommendation is to keep the basic aid calculation similar to that of traditional districts, maintain supplemental career technical funding, and add funding for the essential career exploration component.**

### **STEM (SCIENCE TECHNOLOGY ENGINEERING AND MATH)**

Standalone STEM schools are currently funded in the same manner as charter/community schools. The recommendation is to follow the same methodology as the funding proposal for charter and community schools: students will be funded where taught.

## CONCLUSION

In conclusion, career technical education is an important option for Ohio students and critical to the economic success of Ohio employers and to the State of Ohio overall, now and in the future. Again, career technical education is not right for all students, but all students should be exposed to the alternatives and opportunities that are available.

Thank you again for your time today. I would be happy to answer any questions you may have. If you need any further information as you consider Senate Bill 376, please do not hesitate to contact me or Jerry Brockway. Thank you.

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# CTE WORKS!



## CTE Works for High School Students

- The average high school graduation rate in 2017 for CTE concentrators was 95%, compared to the national adjusted cohort graduation rate of 85%. (Perkins Collaborative Resource Network, customized Consolidated Annual Report data; U.S. Department of Education, Office of Elementary and Secondary Education, Consolidated State Performance Report, 2010-11 through 2016-17)
- CTE is associated with reduced rates of dropout and higher rates of on-time graduation, particularly CTE courses taken in 11th and 12th grades. (Gottfried and Plasman, Linking the timing of CTE coursetaking with high school dropout and college-going behavior, *American Educational Research Journal*, 2017)
- Arkansas high school students with more exposure to CTE are more likely to graduate, enroll in a two-year college, attain employment and earn higher wages and are just as likely to pursue a four-year degree as their peers. (Dougherty, *CTE in high school: does it improve student outcomes?*, Thomas B. Fordham Institute, 2016)
- CTE high school students in Florida who earn an industry certification are more likely to graduate on time, enroll in postsecondary education and earn higher wages. (ExcelinEd and Burning Glass, *Where the Credentials Meet the Market*, 2019)
- Employers overwhelmingly say that the most valuable employee skills are soft or employability skills such as professionalism, teamwork and

written and oral communication. The blend of technical, academic and employability skills that CTE programs provide best prepare students for fast-growing and high-earning jobs.

(Orrell, *STEM without fruit: How noncognitive skills improve workforce outcomes*, American Enterprise Institute, 2018)

- CTE students and their parents are three times more likely to report being "very satisfied" with the real-world learning component of their education than non-CTE students and parents. (Advance CTE, *The Value and Promise of CTE: Results from a National Survey of Parents and Students*, 2017)
- Advanced CTE coursetaking in high school is associated with higher wages. Workers see a 2% wage increase for each upper-level CTE course taken. (Kreisman and Stange, *Depth over breadth: The value of vocational education in U.S. high schools*, *EducationNext*, 2019)

## CTE Works for Postsecondary Students and Adults

- There are about 30 million "good jobs" —jobs that pay a median income of \$55,000 or more and require education below a bachelor's degree. Postsecondary CTE programs enable many people to earn associate degrees, postsecondary certificates and industry credentials that qualify them for these good jobs. (Georgetown University Center on Education and the Workforce, *Good Jobs*

*that Pay Without a BA*, 2017; Georgetown University Center on Education and the Workforce, *Three Educational Pathways to Good Jobs: High School, Middle Skills, and Bachelor's Degree*, 2018)

- About 17 million workers nationwide use science and engineering expertise and technical knowledge, which can be gained through postsecondary CTE programs, in their occupations, but do not possess a bachelor's degree. (National Science Board, *Science and Engineering Labor Force, Science & Engineering Indicators 2020*, 2019)
- Individuals with associate degrees in CTE fields can earn up to \$10,000 more per year than those with associate degrees in other fields. (Georgetown University Center on Education and the Workforce, *The Overlooked Value of Certificates and Associate's Degrees*, 2020)
- Shorter term CTE credentials can be as valuable as bachelor's degrees. According to research in Texas, Colorado and Virginia, graduates with technical or applied science associate degrees out-earn bachelor's degree holders by \$2,000 to \$11,000. This is a high return on a modest investment—average tuition and fees for U.S. public two-year institutions are less than half of tuition and fees for four-year colleges. (Schneider, *Higher Education Pays*, College Measures, 2013; College Board, *Average published undergraduate charges by sector*, 2019–20)
- Adults who complete Washington State's Integrated Basic Education and Skills Training (I-BEST) program, which teaches basic skills in a CTE context, are significantly more likely to enroll in college courses, complete core college math and English classes and earn twice as many college credits than those in other basic skills programs. (Pathways for Advancing Careers and Education, *Washington State's I-BEST Program in Three Colleges: Implementation and Early Impact Report*, 2018)

## CTE Works for Businesses and the Economy

- Occupations in the skilled trades, sales and marketing, driving and logistics, construction, customer support and health care are some of the top jobs employers are having trouble filling in the United States. CTE plays a critical role in training workers in these areas. (ManpowerGroup, *Talent Shortage 2020: U.S. Data Edition*, 2020)
- The skills gap may leave an estimated 2.4 million manufacturing jobs unfilled between 2018 and 2028, while many of the almost 17.2 million workers employed in infrastructure jobs are nearing retirement. (Deloitte and The Manufacturing Institute, *The Skills Gap and Future Work Study*, 2018; Kane, *Aging and in need of attention: America's infrastructure and its 17 million workers*, *The Avenue*, 2019)
- Many of the 30 million good jobs available without a bachelor's degree are found in the skilled trades, health care and hospitality. (Georgetown University Center on Education and the Workforce, *Good Jobs that Pay Without a BA*, 2017)
- Communities across the nation benefit from CTE. Oklahoma's economy reaps a net benefit of \$3.5 billion annually from graduates of the CareerTech System. Wisconsin taxpayers receive \$12.20 in benefits for every dollar invested in the technical college system. Colorado Community College System alumni in the workforce contribute \$5.1 billion annually to the state economy. (Snead, M. C., *The Economic Contribution of CareerTech to the Oklahoma Economy: Cost-Benefit Analysis of Career Majors (FY11)*, 2013; Wisconsin Technical College System, *The Technical College Effect*, 2016; Colorado Community College System, *Fact Sheet: The Economic Value of the Colorado Community College System*, 2017)



"Saving You Money While Saving Our Environment"

## Expansion and Development of Career Technical Occupations

By Trent Hayden, Energy Engineer

As we hear in the media frequently, there is a national abundance of job openings in the rapidly growing industrial field but a shortage of qualified individuals to fill them. This is where career technical education is essential to help bridge the skill gap and encourage younger generations to study these fields. In order to reach and benefit the intended audience, educators must be equipped to offer the proper training and education to enable students to work after graduation, be adaptable to an evolving industry and technology, and know that they are the solution to the cultural and environmental issues we face every day.

Year after year, Energy Optimizers, USA (EOU) pushes the envelope of energy savings possibilities for school districts as it expands its repertoire of energy conservation measures and expertise. EOU associates join forces with a wide variety of education-based professions, including superintendents, teachers, maintenance staff, college professors, engineers, and graduates of career tech schools. As EOU has grown, we have sought to bring on more skilled trade workers to aid in developing facility improvements and energy savings projects, yet finding prospective workers has proved a daunting task with the competition for qualified tech graduates.

We understand and appreciate the value of career tech schools and have a great success story to share. Nick Alspaugh joined EOU in 2019 to assist our Project Development team, to perform energy auditing and to manage service agreements with our customers. Nick was home schooled and took a unique path to graduation. In his junior and senior years of high school, he did not need to take any gen-ed courses so attended both Upper Valley Career Center and Edison State Community College. Most of the credits earned at Upper Valley transferred to Edison, so Nick graduated from Upper Valley and Edison State Community College at the same time, at age 18. Further, Nick began working the summer before his senior high school year at an HVAC company and during his co-op rotation. By the time he graduated from Upper Valley/Edison State, he already had 1-1/2 years of experience in his chosen field. When he received a scholarship from Upper Valley, he used it to pay for an associate degree in HVAC from Sinclair Community College. Nick, now at only age 21, has a very bright future with Energy Optimizers, USA and credits his educational experiences at Upper Valley and two community colleges for giving him a great start in his career.

As technology has progressed, the renewable energy industry has become a catalyst to the growth of skilled trade jobs, with the most rapid job growth coming from the solar and wind sectors. EOU is seeing this clean energy workforce demand skyrocket firsthand thanks to decreasing technology costs, increasing demand for clean energy and efficient technology, and supportive policy and investments. New occupations related to renewable technologies are not limited to densely packed cities and remote areas away from home. Robert Kellow, of Aerotek staffing company, says he sees the renewable energy industry

bringing jobs to small towns, as solar installation workers average a wage of \$26 per hour according to the Solar Foundation jobs census. To fill these roles, our career technical centers must evolve and train students so they can thrive in this budding industry.

A notable example of career technical education investment comes from the Dayton area not too far from our headquarters. Miami Valley Career Technology Center is in the midst of a \$150 million project to expand its programs and student capacity. While the Center currently serves 1,850 high school students and 4,000 adult learners, (with an additional 3,500 students through satellite schools in grades 6-12), it still has had to reject more than 200-300 students per term due to a lack of available seating. This expansion will allow for a larger student body and broaden the range of trades. Ohio Lt. Governor Jon Husted is quoted saying, "This is the future of how America's education system is going to work, integrating employers and jobs skills in one location and launching students into the world ready to compete." This type of investment into quality long-term education is what EOU looks for when recruiting for the future.

The expansion of our Energy Services industry has created significant opportunity for those with vocational aspirations and technical expertise. Creating enthusiasm and investing in trade skills career opportunities to end the skills gap deserves greater attention from district officials and community leaders everywhere. The effect will make for stronger economy, community, and employment.

The Energy Optimizers, USA team is proud to support the efforts of Career-Tech leaders in developing a strong workforce for today's jobs. We have helped numerous Ohio career-tech centers to update their facilities, including LED lighting retrofits, and have encouraged faculty to allow students to learn from and participate in the project. It's been a great partnership! If we haven't yet provided your district with a complementary energy and lighting audit, give us a call to schedule our visit.

**Energy Optimizers, USA** | "Saving You Money While Saving Our Environment"

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# Building Opportunity

The Case for Investing in  
and Improving Skilled  
Trades Education in America's  
High Schools



**HARBOR FREIGHT**  
TOOLS FOR SCHOOLS



## Let's Build on What We've Learned

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At Harbor Freight Tools for Schools, everything we do to advance skilled trades education in America's public high schools rests on three beliefs:

1. People who work with their hands are intelligent, creative, and deserving of our admiration and support;
2. Students learning the trades can build great careers, including pathways as leaders and entrepreneurs; and
3. Skilled tradespeople built and will build our country, serving essential and fulfilling roles in our communities.

To do our work well, we knew we had to try to answer two big questions: **What does U.S. skilled trades education in high school look like right now? And what do we as a country think about it and want from it?**

In the year prior to the COVID-19 crisis, we commissioned two research studies to start to answer those questions with the hope of catalyzing productive conversations about the potential of high school skilled trades education to uplift students, families, communities, and our economy. These aims seem ever more poignant in the spring of 2020.

The first study, a landscape analysis conducted by the nonprofit Jobs for the Future (JFF), looked at who takes skilled trades courses and where; who teaches them; and how they connect, or don't, to economic and workforce needs. The second, a poll conducted by NORC at the University of Chicago, a nonpartisan research center, asked parents, voters, and students their thoughts about trades classes and careers.

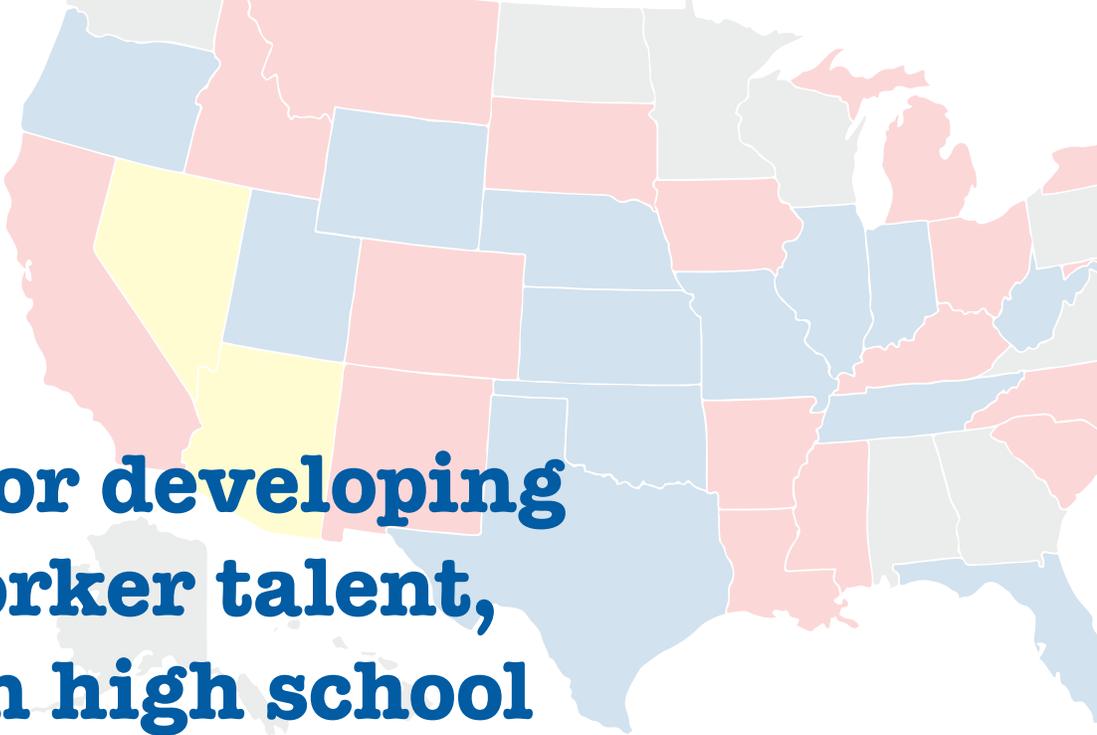
As we prepared to bring the results to light, the COVID-19 virus spread around the world and our own country, shuttering schools and workplaces, upending our daily routines, and casting into sharp relief what it means to do an "essential" job. We are releas-

ing these reports in highly uncertain times, fraught with challenge, which dramatically shift underlying assumptions about the future upon which the reports relied. But even as the economic and social costs are being felt and navigated, this moment offers the call for deeper appreciation for the skilled tradespeople who keep our homes, offices, public works systems, and, crucially, our hospitals running.

We bring an urgent and deeper sense of commitment to providing excellent skilled trades education to students in America's public high schools—so our communities have the benefit of their skills in the recovery and so students can have a head start on pathways to rewarding and, yes, essential careers. **Our biggest realization from these studies is the significant gap between the current version of high school skilled trades education and what Americans want and need.** This gap demands our attention, and our partnership with those of you who are reading. Indeed, we see this gap not as an insurmountable challenge but, rather, as a pressing opportunity.

**Let's fix this — together.**

*Danny Corwin, Executive Director  
Harbor Freight Tools for Schools | May 2020*



# The case for developing skilled worker talent, starting in high school

■ Program, Enrollment and Teacher Data ■ Program and Enrollment Data ■ Program Data Only ■ No Data

Together, the two research reports commissioned by Harbor Freight Tools for Schools are the **first comprehensive look at skilled trades education in American public high schools**. Despite a wealth of information on education and economics generally, we simply don't know enough about this critical piece of the nation's talent pipeline, as JFF discovered through the course of this study. The emerging picture, however, is that education systems are not yet meeting the needs of American students or of our country's economy and infrastructure. The NORC poll found a strong reaction to that misalignment: Students, parents, and voters want it fixed.

Thirty-seven states provided JFF with data about their skilled trades programs, students, and teachers—though only five states were able to provide all the data requested. State career and technical education leaders from all 50 states participated in interviews. From this “data desert with few oases,” the report was able to capture key, baseline findings.

Thirty-two states reported a total of more than 870,000 students in trades education. This represents close to 8 percent of the high school population in those states, and more than 10 percent of the 8.3 million participants in CTE programs nationally. We estimate that at least 1 million students study the trades nationwide. A substantial portion of these students “concentrate,” or take multiple, sequential courses, in a trade.

Nationwide, educators are trying to address labor market demands through the high school trades courses they offer, but the alignment does not extend to all subject areas. Among the 37 states that provided data, the most commonly offered courses are in construction and advanced manufacturing, which are also among the areas of highest demand nationally based on projected annual job openings as of 2018. Conversely, states are offering the fewest courses

in plumbing, which is an area with even higher projected demand.

Across the country, there are far too few students enrolling in trades courses in high school, and often, those who do enroll are choosing fields that are less in demand.

In fact, **there is no skilled trades field where current enrollment in high school programs is projected to meet even half of employer demand over the next decade**. While a recession resulting from COVID-19 may reduce that demand in the near term, given these sizeable gaps, and the fact that much demand is driven by retirements, the need is still likely to outpace the availability of trades workers. This is further complicated by JFF's findings showing a looming trades teacher shortage, and cuts to education funding that typically result from an economic recession.

In recent years, states across the country have invested in the quality and availability of their K-12 and postsecondary career and technical education programs. States have made collective and innovative efforts to improve data collection and increase employer partnerships, dual enrollment, and teacher externship programs. Still, we lag behind where we should be.



# Skilled Trades in the United States



Over the past decade, jobs in carpentry, plumbing, electrical and advanced manufacturing have ranked among the **top five hardest to fill.**



**50%**  
**Are Mid-Career or Older**

In 2018, half of skilled trades workers in the United States were 45 years and older, including almost a quarter over age 55.



Even during an economic downturn, retirements drive high demand for skilled tradespeople. For every new job created in the sector, there are 15 vacancies due to retirements and turnover.

**Pay That Rewards Skills**



Construction workers earn an average of more than \$49,000 annually, with some supervisors earning an average of \$70,000, and higher-level managers earning more than \$90,000.

## Teacher Spotlight: Opening Doors of Opportunity

As a teacher, Cesar Gutierrez believes his role is to empower students, transform a community, and break the cycle of poverty.

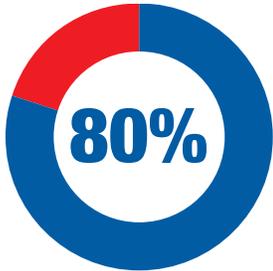
An educator since 2007, Gutierrez began teaching manufacturing at Tucson, Arizona's Desert View High School in 2012, where he helped create the iSTEM Academy. While iSTEM was a response to local employer concerns that prospective employees in the defense and aerospace industries were in short supply, Gutierrez had another mission as well: introduce students from historically underserved populations to the rigorous programs he knew would provide them with strong options after high school.

His first class had only 44 students, but today, the iSTEM Academy serves 300 students each year. Eighty percent of students are Latino, and 90% qualify for free or reduced-price lunch. Gutierrez's students can receive up to 25 college credits — nearly a full year of school — toward their associate degree in industrial technology, thanks to a partnership with Pima Community College. Gutierrez's students have a 100% graduation rate in a state where the average is below 80%. Eighty-two percent of his students graduate with postsecondary credit, and all have participated in work-based learning by the time they receive a diploma.

*Cesar Gutierrez is a winner of the 2019 Harbor Freight Tools for Schools Prize for Teaching Excellence.*

## Combating Negative Perceptions

When we compare the landscape analysis from JFF with the results of the poll by NORC, one paradoxical finding is that education leaders unanimously cite a stigma against trades education, but the opinion research strongly suggests there is far less stigma. To us, this suggests that Americans realize the trades are vital, and are interested in high school trades courses, but still don't understand the effectiveness of high school trades courses or the opportunities offered by trades careers as a path into fulfilling and essential work with family-supporting pay.



**80% of voters across the political spectrum described the skilled trades as “important,” and 83% say the government should provide more funding for skilled trades classes.**

Meanwhile, education systems are hampered by the long history of “tracking,” or separating students into college-preparation classes for some students and vocational ones for others. This system led to students of color and students from low-income backgrounds being deliberately placed into “shop classes” that weren't seen as paths to success after high school. Educators steeped in this history likely realize that institutional support,

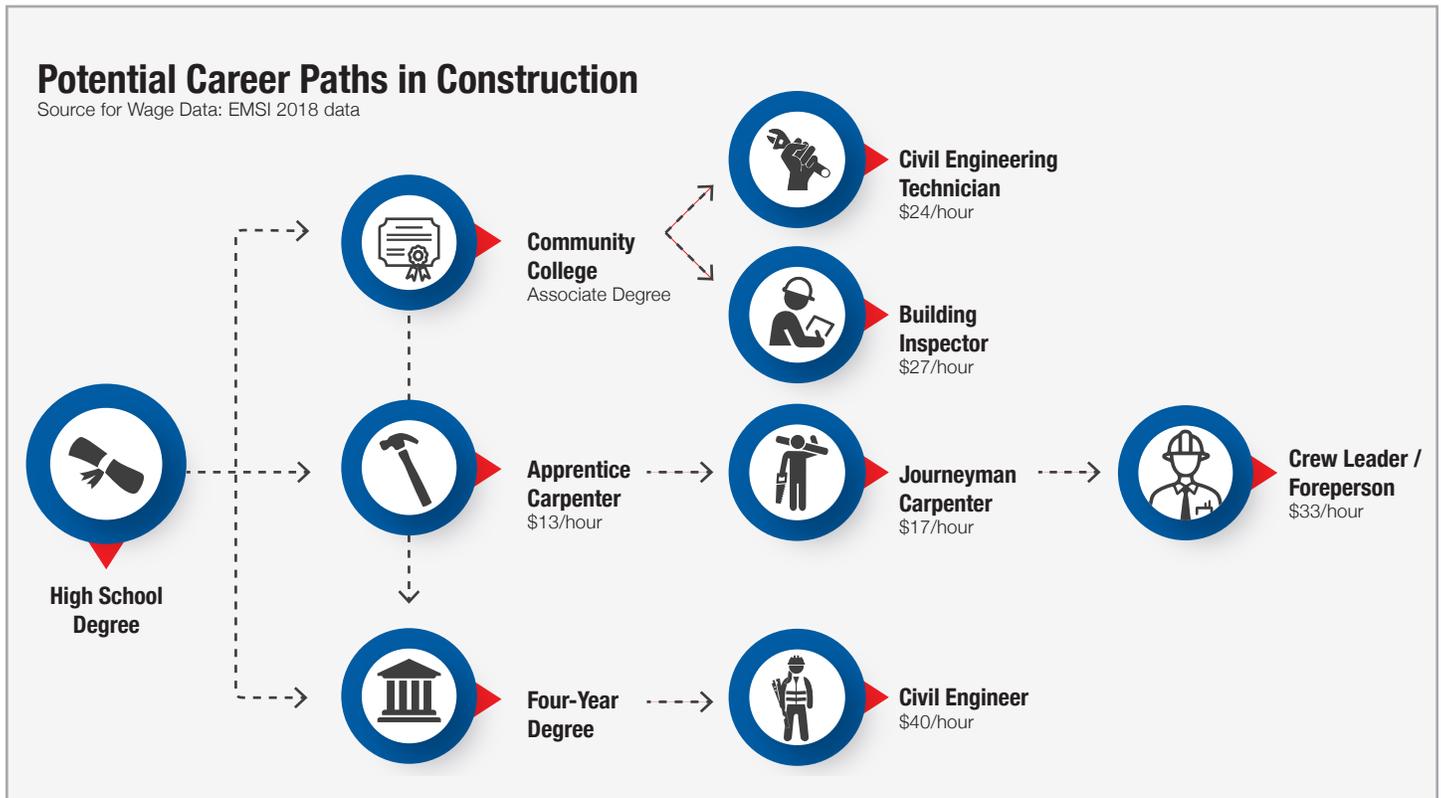
including funding, for high-quality, modern skilled trades courses lags well behind popular opinion.

## Skills for College and Careers

The best trades programs incorporate project-based learning, hands-on problem solving, and teamwork, as well as real-world experiences, high-quality industry certifications, paid apprenticeships, and credits toward an associate degree. This training puts students on a faster path to a career with family-supporting wages—and it provides soft skills that transfer well to any path after high school. In fact, as JFF's data and other studies from the field demonstrate, when students take in-depth trades courses throughout high school they are more likely to graduate than their peers.

Apprenticeships are a bright spot in trades education, particularly when made accessible to high school students. These longstanding and well-regarded pathways into the trades often combine technical training and hands-on work experience with classroom instruction and the chance to earn college credit and degrees. Apprentices with the International Association of Heat and Frost Insulators and Allied Workers, for example, take classes in math, applied physics, mechanical drawing, and digital technology. The New York City Plumbers' Union apprenticeship programs leads participants to a full associate degree.

In addition to certifications, skills, and workplace experience, a trades education also gives students an opportunity to work their way through college with a job that pays well — eliminating the need to take on significant college debt.



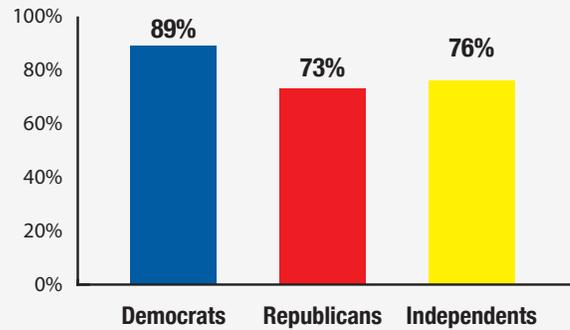


## Something America Can Agree On

Students and their parents see the value of trades education, which also enjoys remarkably strong bipartisan support. In fact, the vast majority of parents — 89% — believe American students would be more prepared for success in a career if there were more opportunities to study the skilled trades. And more than 7 in 10 students (72%), parents (77%), and voters (89%) say high schools could do a better job preparing students for life after graduation by giving them more chances to learn real-world skills.

**Republicans and Democrats find strong common ground here: a large majority in both parties support increased funding.**

### Favor Increased Federal Funding for Skilled Trades Education



**Why are we not prioritizing skilled trades education? Employers report a critical shortage of qualified workers. Students want to learn these skills, and their parents support them doing so. Voters across the spectrum are willing to pay for an increased investment in trades education, and say they will support candidates who make it a priority. This is a rare moment of opportunity for alignment among educators, industry, policymakers, parents, and students to fulfill the promise that trades education offers.**

**Let's fix this — together.**

# A Checklist for Getting it Done



It is our hope that no matter where you sit, you feel inspired after reading this report to get involved and to share with us your thoughts on the work ahead. We invite you to connect with us online at [HarborFreightToolsforSchools.org](https://HarborFreightToolsforSchools.org) or by emailing [research@hftforschools.org](mailto:research@hftforschools.org).

Below are steps we offer for three groups we believe can start to make meaningful change.

## Governors and State and Local Education Leaders

- Connect education and economics:** Understand and plan according to labor market needs, career opportunities, and high school course offerings.
- Forge K-12/higher-ed partnerships:** Support connections between high school and higher education systems to develop pathways for students to advance their learning.
- Set high standards:** Align state systems around clear standards for high-quality trades education, collecting and using data, and maximizing the impact of federal funding.
- Exert leadership:** Communicate both the labor market need for trades workers and the importance of making skilled trades careers available to a broader segment of students.

## State Labor and Workforce Development Leaders

- Gather all the facts:** Work with relevant state agencies to gather and update data on employment and job openings, infrastructure needs, and necessary skills and credentials, and share the information widely.
- Grow apprenticeships:** Support the development of new apprenticeships or expansion of existing ones that help grow the skilled workforce.
- Use existing networks:** Convene groups that bring secondary and higher education, industry, labor, and workforce perspectives to the table.

## Industry and Union Leaders

- Go to the schools:** Help provide skilled trades education in high schools. Offer financial assistance, materials, mentoring, and curriculum advisement; and support the trades teaching workforce through externships and co-teaching.
- Open your doors:** Offer work-based learning opportunities in and beyond high school, including expanding access to high-quality apprenticeships.
- Get the word out:** Advocate for state and federal investments to support skilled trades education, and reach out to state and school district leaders to understand the challenges of providing high school trades education.

To learn more, visit <https://harborfreighttoolsforschools.org/what-we-do/research/>

# About Us

Harbor Freight Tools for Schools is a program of The Smidt Foundation, established by Harbor Freight Tools founder Eric Smidt, to advance excellent skilled trades education in public high schools across America. We have a deep respect for the dignity of the skilled trades and for the intelligence and creativity of people who work with their hands. We believe that high-quality skilled trades education gives high school students a pathway to graduation, opportunity, and good jobs, and produces a workforce our country needs.

To learn more, visit  
[harborfreighttoolsforschools.org](http://harborfreighttoolsforschools.org)



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