

Perceptions of Career and Technical Education in Missouri

Findings from the Department of Elementary and Secondary
Education's CTE Survey

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Perceptions of Career & Technical Education: Findings from the 2019 DESE CTE Survey

Executive Highlights

Adult survey respondents did not have a negative perception of CTE, but they perceived that one exists

- More than 90 percent of adult respondents agreed that CTE is just as important as subjects like Math, English, Science & Social Studies and that CTE can be a pathway into college for some students.
- However, 57 percent of adults agreed that CTE tends to focus on students who probably will not go to college and over 47 percent of adults agreed that CTE students are not as respected as those who take more traditional classes.

Student perceptions of CTE are not fully formed

- Assumptions about negative perceptions of CTE are more commonly held by adults, but rather than having negative perception students are more likely to lack knowledge about CTE-related careers, certifications and educational opportunities.
 - More than 25 percent of students do not know if they have an opportunity to earn an Industry Recognized Credential through CTE, and more than 30 percent of students do not know if community and technical colleges agree to transfer CTE credits.
- Many adults do not equate CTE with college, but students appear somewhat less certain and this lack of awareness may explain why many students prioritize college prep efforts.
 - 72 percent of students agreed that the most important thing schools should teach are courses that meet college entrance requirements.

Exposure to CTE improves student awareness of CTE-related opportunities

- More than a third of non-CTE students lack knowledge of CTE careers, post-secondary education opportunities and certifications.
- The information gap between CTE students and non-CTE students is due more to a lack of knowledge than a negative perception.
- A significant percentage of CTE students are unaware of opportunities to transfer CTE credits to community and technical colleges or earn Industry Recognized Credentials.
 - Non-CTE students are even less likely to be aware of these opportunities.

Parents and educators need greater knowledge of about CTE-related education and certification opportunities

- More than 70 percent of parents thought that CTE programs engaged students and were good for their child, but more than 50 percent of parents were unaware of opportunities to transfer CTE credits to community and technical colleges and more than 40 percent did not know about opportunities to earn Industry Recognized Credentials.

Perceptions of Career & Technical Education: Findings from the 2019 DESE CTE Survey

- Almost 90 percent of educators agree that CTE exposure should begin before high school, but many K-8 teachers lack CTE knowledge.
 - Roughly 1 in 4 K-8 teachers did not know about individual career and academic plans, CTE certificates, and if their school offered work-based learning opportunities.

Businesses value CTE certifications and credentials, but need stronger connections to CTE programs

- Over 85 percent of business leaders believed that CTE classes teach students transferrable skills that will serve them well in this economy.
- More than 90 percent of business leaders agree that local employers should partner with schools to provide students with real-world education and training experiences.
- Barely 50 percent of businesses indicate they currently have a working relationship with a CTE career center or CTE program.
- Only 40 percent of business leaders indicated that their company offers students in Grades 7-12 internships and work-based learning opportunities.

Introduction

Over the past forty years, the American workplace has changed significantly as it transitions into a post-industrial economy. Jobs that once formed the backbone of American industry—production jobs in manufacturing industries—are now fewer in number and different in nature.¹ The knowledge and skills required for these and many other occupations is also dramatically changing. Across all occupations there is an increased expectations of digital skills, but also a consistent demand for additional, highly specialized skills and their associated credentials. These changes have affected all types of occupations, but have been particularly acute in fast changing industries such as manufacturing.² As a result, the paths to enter many careers are increasingly complex and job seekers must continually expand their basic skill sets.

Given the changing economy, students and job seekers face a difficult time “navigating the school-to-career transition,” particularly as the number of “colleges, majors and career fields has grown rapidly.”³ This leads to situations where students “make career choices based on scant information,”⁴ with students being steered towards the pursuit of four-year degrees, primarily because it is a known pathway.⁵ Similarly, many other workers remain in low-skill jobs, in part because they lack knowledge about the educational opportunities that will help them move into more middle- and high-skill work. This confusion can lead to greater career polarization, whereby some students and workers prosper, but many others experience more limited career growth and earnings potential. Over the long term, these trends lead to growing “dissatisfaction with career choices and outcomes,” particularly as people become mired in static jobs and careers of limited interest to them.⁶

¹ For example, at its peak in 1979, manufacturing accounted for almost 20 million jobs or 22 percent of national employment. Today, manufacturing only accounts for 12.6 million jobs, or 9 percent of national employment (Georgetown University Center on Education and the Workforce 2019, 1).

² A recent report from Burning Glass Technologies that examined the importance of digital skills in the United Kingdom found that “digital skills are near-universal requirements,” with over 75 percent of jobs at all skill levels (low-, middle-, and high skill roles) requesting baseline digital skills such as Microsoft Office or other productivity software tools (Nania et. al. 2019, 8). At the same time, the Georgetown University Center on Education and Workforce has noted that while the number of production workers with a high school degree or less has dropped, an increasing number of production workers have at least some postsecondary education, including associate’s degrees, postsecondary certificates, and bachelor’s degrees (Georgetown University Center on Education and the Workforce 2019, 3).

³ Hanson and Gulish 2016, 7.

⁴ Feller 2003, 262. This sentiment was echoed in 2017 in the report *Career Pathways: Five Ways to Connect College and Careers* from the Georgetown University Center on Education and the Workforce. In that report, they note that “many learners, especially those with little or no work experience, often make life-altering decisions under a cloud of uncertainty about how their postsecondary choices will affect their employment outcomes, the path needed to reach those outcomes, the likelihood of success, and whether their career will line up with their abilities, preferences, and interests” (Georgetown University Center on Education and the Workforce 2017, 11).

⁵ For example, the Washington State Auditor reported on this during an audit conducted of the state’s Career and Technical Education System. In their findings, they noted that “many children and parents are unaware of the options available to them,” ultimately leading them to be steered towards “four-year university degrees rather than CTE-related careers” (Office of the Washington State Auditor 2017, 18).

⁶ Feller 2003, 262.

While students face challenges navigating the changing terrain of credentials, jobs, and careers, employers regularly report shortages of qualified applicants for their open positions.⁷ These shortages are particularly acute in middle-skill occupations that have been historically connected to vocational education programs. These careers once required only a high school degree, but workers now increasingly need some kind of postsecondary credentials—often less than a four-year college degree.⁸ The allure of the four-year degree remains for many students and job seekers because they believe these jobs provide the best opportunities for good paying jobs and careers.

In response to the changing nature of the workplace, many Career and Technical Education (CTE) programs evolve to meet the changing needs of employers. Once viewed as the province of “low-level courses, job training, and single electives,” CTE has replaced vocational education with “academically rigorous, integrated, and sequenced programs of study that align with and lead to postsecondary education.”⁹ Many CTE programs have built connections with employers, industry groups and postsecondary educational institutions, enabling students to “earn dual enrollment credits, industry-sponsored certificates, and technical endorsements on high school diplomas.”¹⁰ As CTE programs evolve, they enable participating students to immediately move into valuable—and growing—middle-skill careers.

In Missouri, CTE incorporates many unique actors. Across the state, there are 57 area career centers, 444 comprehensive high schools, the State Technical College of Missouri, 12 community college districts, and seven four-year institutions that deliver some kind of CTE. Statewide, CTE covers a broad range of disciplines that include programs in agriculture, business, health sciences, family and consumer sciences/human services, marketing, skilled technical sciences, and technology and engineering education. For the 2017-2018 academic year, at least 65 percent of all Missouri high school students took at least one CTE course or participated in CTE programs. In total, over 243,000 Missourians participated in CTE courses during the 2017-18 academic year.¹¹

Despite the growing evidence of the value of pursuing CTE opportunities and its prevalence across the state, the persistent perceptions of past vocational programs still impact current CTE efforts. In a March 2013 report from the American Institutes for Research and funded by the U.S. Department of Education, the authors found that one of the biggest challenges to growing CTE programs is these programs’

⁷ There are several recent examples of this concern echoed in reports about Missouri’s workforce. 41 percent of employers in 2018’s *State of the St. Louis Workforce* reported that a “shortage of workers with knowledge and skills” was their biggest barrier to expanding employment (St. Louis Community College 2018, 4). This was slightly down from 2017, where 52 percent of employers cited the same issue as their primary concern (St. Louis Community College 2017, 4). Similar information was echoed in the Missouri Chamber of Commerce’s *Workforce 2030: A Call to Action*, where they quote a CEO who said “we cannot find enough workers with the right skills” (Missouri Chamber of Commerce 2018, 3).

⁸ One example of these stories found in the popular press comes from an April 25, 2018 story from NPR highlighting the prevalence of high-paying jobs in the skilled trades that sit empty while students line up for universities and other four-year degree granting institutions. For more information, see Gross & Marcus 2018.

⁹ Brand et. al. 2013, 2.

¹⁰ Ibid.

¹¹ Missouri Department of Elementary and Secondary Education 2018. Found online at <https://dese.mo.gov/sites/default/files/cte-mce-fact-sheet.pdf>.

longstanding image.¹² Therefore, addressing these perceptions will be an important step for growing CTE classes and programs.

About the Survey

During the fall of 2018, the Missouri Department of Elementary and Secondary Education’s (DESE) CTE Advisory Council constructed a survey designed to gauge perceptions of Career and Technical Education in Missouri.¹³ This survey sought to better understand how Missourians view CTE. The CTE Advisory Council will use the survey results to inform a communication and marketing campaign—the success of which is dependent on, “...a clear understanding of audience members’ pre-existing opinions—be they rightly or wrongly held.”¹⁴

The survey was prepared by the Advisory Council and DESE staff, in conjunction with stakeholders and other partners.¹⁵ This group reviewed surveys from neighboring states as well as the Association for Career and Technical Education (ACTE). Those surveys then guided the development of a Missouri-specific survey. Once developed, the survey was sent electronically to educators, parents, students, and other stakeholders throughout the state and remained open during the first quarter of 2019. Responses were collected via Survey Monkey and aggregated by DESE staff.

Once the survey closed, DESE staff gave the survey results to the University of Missouri Extension’s Labor and Workforce Development (LWD) Program for analysis. The LWD program matched zip codes with corresponding Missouri counties, allowing us to better comprehend the geographic reach of the survey. We also broke the survey responses apart by type of respondent (e.g., student, parent, educator, business leader), allowing us to independently analyze the different sections of the survey. Furthermore, the survey asked questions that gauged levels of intensity, for the purposes of this analysis we tended to group the answers into responses of “Agree” and “Disagree.”¹⁶

The survey was constructed with a series of questions asked of all respondents. These questions focused on general perceptions of CTE, as well as asking for general demographic information. After the

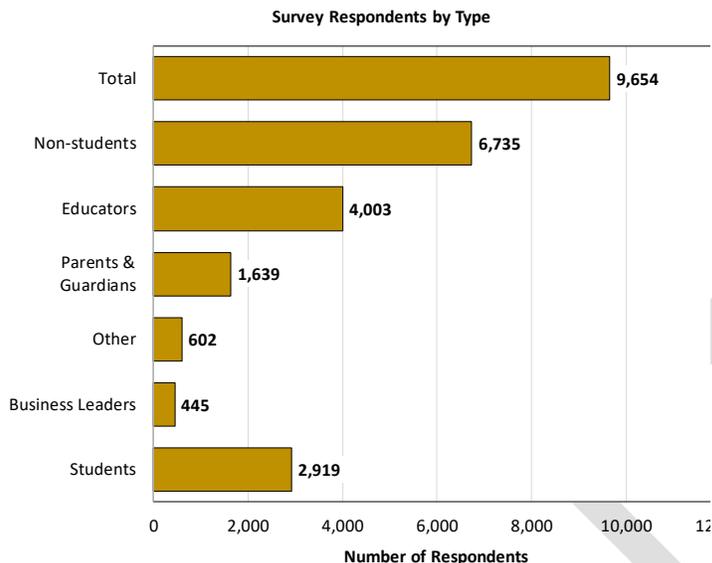
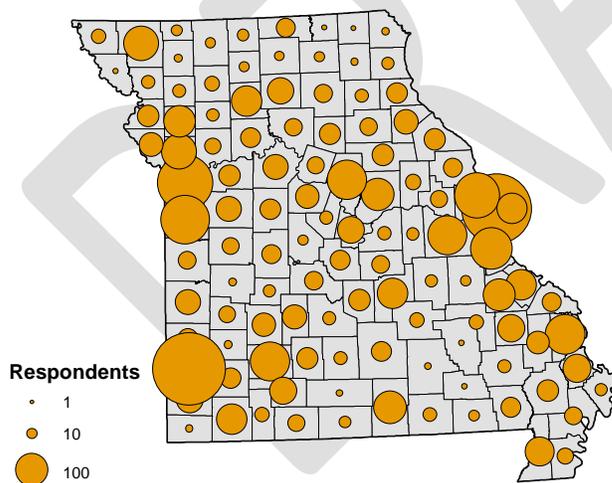
¹² Notably, the authors state that “CTE continues to face challenges with regard to its image as a low-level vocational education track that often leads to a low-skill job with no intermediate postsecondary education.” They note that this continued challenge “continues to impact students’ and parents’ decisions about high school course taking and career pathways” (Brand et. al. 2013, 7).

¹³ The CTE Advisory Council was signed into law on August 28, 2016. One of the first actions of this Advisory Council was to form a CTE Marketing Taskforce, charged with changing perceptions of CTE in Missouri. The work of this committee was included in the Advisory Council’s strategic plan, which was approved in October 2018, and contains goals related to Student Achievement; Business and Financial Operations; and Marketing, Image and Partnership.

¹⁴ Missouri Department of Elementary and Secondary Education, “*Changing Perceptions: Findings and Recommendations from the Missouri Career and Technical Education Advisory Council’s Marketing Taskforce*”, April 2018, p. 11.

¹⁵ The other partners included staff from the Missouri Department of Higher Education, the Department of Economic Development, and the Division of Workforce Development.

¹⁶ The survey results were also tested to gauge their statistical significance. Unless otherwise noted, the results that we discuss in this report are statistically significant at the 99th percentile. There are likely some other trends that might be worth exploring in the survey, but unless we were able to verify that they were statistically significant we did not report them as part of this analysis.

Figure 1**Figure 2****CTE Perceptions Survey Respondents by County (2019)**

Source: Department of Elementary and Secondary Education, MU Extension

respondent identified themselves as a student, educator, parent, or business leader, they were directed to a series of additional questions that focus specifically on CTE issues relevant to those populations.

The survey received responses from every county in Missouri

As shown in Figure 1, a total of 9,654 people responded to this survey. 6,735 of the respondents identified themselves in roles that we grouped together as adults, while 2,919 respondents identified themselves as students. Of the adult respondents, the vast majority (4,003) identified themselves as Educators; 1,639 identified themselves as Parents and Guardians; and 445 respondents identified themselves as Business Leaders. The remaining 602 adult responses are classified as Other, which mostly includes people in a variety of education related fields.¹⁷

Zip code information was asked of adult participants, and Figure 2 shows that the survey received responses from every Missouri county. Of the 6,735 adult respondents, 52.5 percent of them identify their geographic location as being part of a metropolitan county¹⁸; 37.4 percent of

¹⁷ It should be noted that the survey design did not allow respondents to select more than one category for their type. As a result, it is possible that some adults fit into multiple categories (e.g., educator and parent), or some respondents might have completed the survey more than once from the perspective of an educator and then again as a parent.

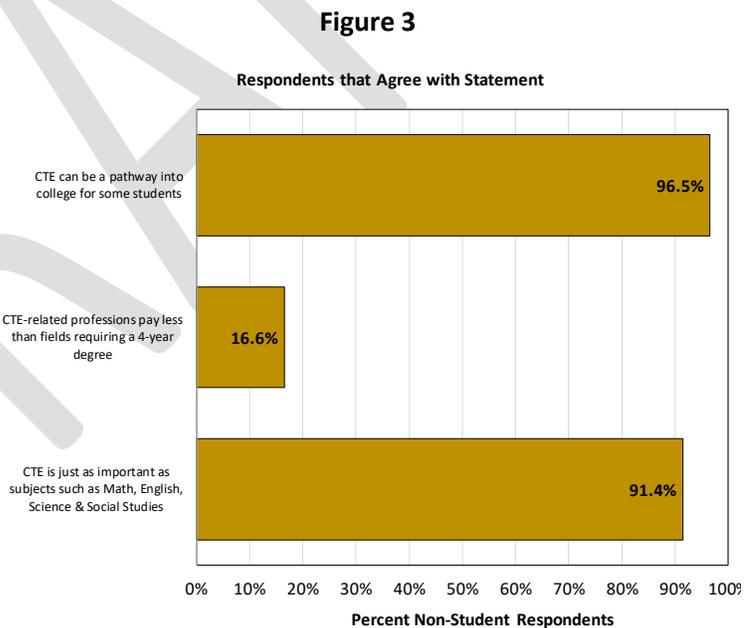
¹⁸ The counties in Missouri defined as metropolitan counties include Andrew, Bates, Bollinger, Boone, Buchanan, Caldwell, Callaway, Cape Girardeau, Cass, Christian, Clay, Clinton, Cole, Dallas, DeKalb, Franklin, Greene, Jackson, Jasper, Jefferson, Lafayette, Lincoln, McDonald, Moniteau, Newton, Osage, Platte, Polk, Ray, St. Charles, St. Louis, St. Louis City, Warren, and Webster. The majority of respondents who indicated they were not from Missouri were from the states surrounding Missouri.

respondents indicate that they are from a non-metropolitan Missouri county. As a result, the state's metro areas are somewhat underrepresented, as approximately 75 percent of the state's population lives in metro counties.¹⁹ Another 9.1 percent of respondents left this question blank; and 1.1 percent of respondents were from outside of Missouri (IL, KS, and AR).

The highest number of survey responses come from Jasper County, with 488 responses. St. Louis County has the second highest number of responses, with 449 people responding to the survey. Other counties with a significant numbers of responses include Jackson, Jefferson, Cass, Cape Girardeau, St. Charles, Franklin, Douglas, Callaway, and Christian counties.²⁰

Adult survey respondents did not have a negative connotation of CTE, but they perceive that one exists

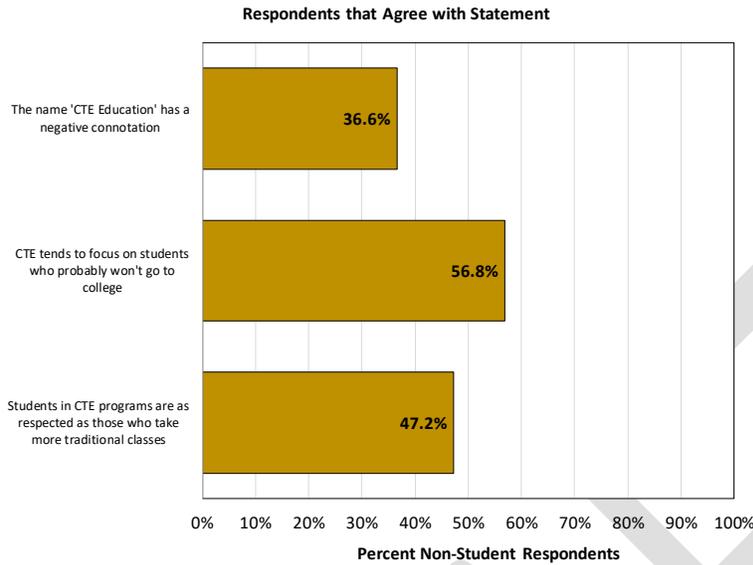
The survey results demonstrate that adult respondents had an overwhelmingly positive impression of CTE. This positive impression is reflected throughout the survey, and is captured best by the three questions highlighted in Figure 3. For instance, 96.5 percent of adult respondents agree with the statement that "CTE can be a pathway into college for some students", while 91.4 percent agree with the view that "CTE is just as important as subjects such as Math, English, Science, and Social Studies." By contrast, only 16.6 percent of respondents agree with the statement "CTE-related professions pay less than fields requiring a four-year degree." Moreover, these positive perceptions were consistent across all types of adult respondents be they parents, educators, or business leaders.



¹⁹ US Census Bureau, Population and Housing Estimates Program, v2018.

²⁰ See Appendix A for a listing of the number of responses by county.

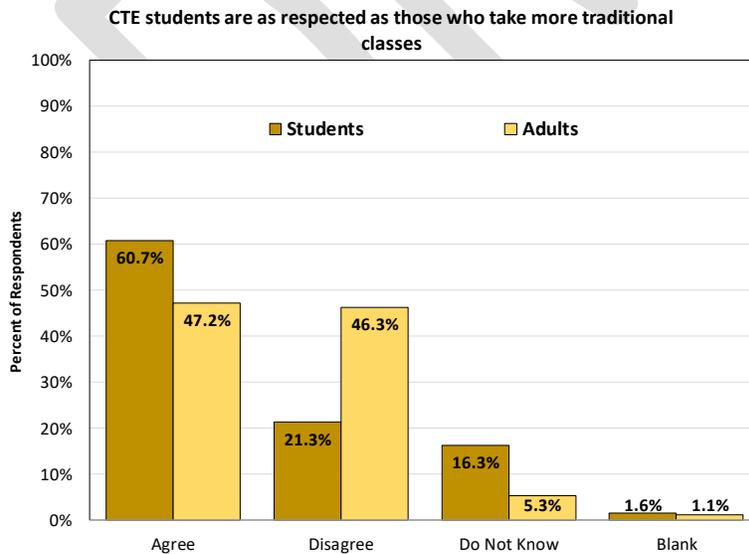
Figure 4



percent) of the same group of respondents agreed with the statement that “CTE tends to focus on students who probably won’t got to college.” And nearly half (47.2 percent) agree with the statement that “Students in CTE programs are as respected as those who take more traditional classes.”

These questions show that many adults perceive that many people have less positive opinions about CTE. Perhaps the most notable and concerning response is that a majority of adults who responded agree with the view that “CTE tends to focus on students who probably won’t go to college.” In a

Figure 5



society where a college education has been promoted as a pathway to economic stability and success, the persistent view that CTE is distinct from college is problematic.

Student perceptions of CTE are not fully formed

Student respondents were less likely to perceive a negative connotation for CTE than adults. Student survey respondents were also more likely to lack knowledge about CTE and the

career pathways and opportunities available through these educational programs. This presents an opportunity for people to influence the next generation entering the workforce about the possibilities available through these educational pathways, as well as overcoming traditional understandings of what CTE entails.

The responses to several survey questions demonstrate how students hold fewer negative perceptions about CTE than

adults. Figure 5 shows that over 60 percent of student respondents believed that CTE students are as respected as those who take more traditional classes, whereas only 47 percent of adult respondents agreed with the same statement. By contrast, 46 percent of adults perceived CTE students as being less respected, a figure more than twice as much as student respondents (21.3 percent).

The perception differences were further demonstrated by the responses to the question about whether “the name ‘CTE Education’ has a negative connotation.” Figure 6 shows that almost 37 percent of adults agreed with that statement, but only 24 percent felt similarly. Moreover, 14 percent of students did not know whether CTE Education had a negative connotation, whereas less than 5 percent of adults answered the same way. These findings make clear that a significant minority of students have not yet internalized the negative impressions about CTE held by many adults.

Students often lack awareness about CTE opportunities and careers

Not only are students less likely to have negative perceptions of CTE, but they also have less awareness about the educational and career opportunities afforded by CTE coursework. The survey results show that significant percentages of students responded “Do Not Know” to questions about the opportunities, educational pathways, and earnings potential of CTE.

Figure 7 shows that while many adults understand the earning potential of CTE-related careers, many students do not. Whereas over three-quarters of adults disagreed with the statement that “CTE-related professions pay less than fields requiring a 4-year degree,” only about a third of students disagreed that statement. Over 28 percent of students indicated a lack of knowledge about the earning potential of CTE-related careers, and another 36 percent of students thought that CTE professions paid less than fields requiring a 4-year degree.

Figure 6

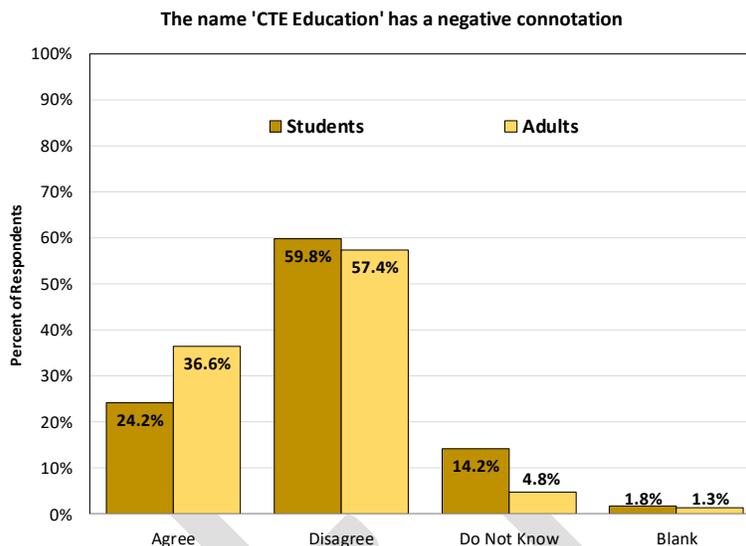
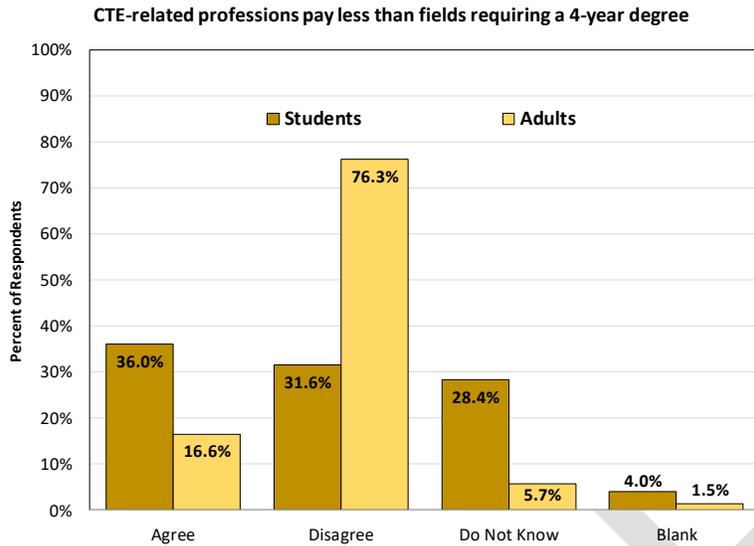


Figure 7

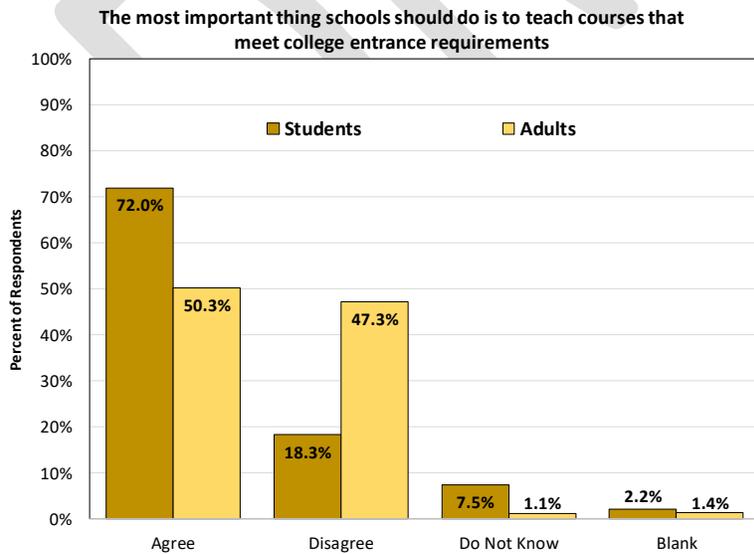


This lack of knowledge about CTE-related careers may explain why many students prioritize the courses that prepare them for college entrance requirements. Figure 8 shows that 72 percent of students agreed with the statement that “the most important thing schools should do is teach courses that meet college entrance requirements”, with only 18 percent disagreeing. By contrast, adults were more split in their agreement and disagreement to the statement, with about 50 percent of adults agreeing with that statement and

47 percent disagreeing. Furthermore, less than 8 percent of students answered “Do Not Know” to this question. Compared to other questions, this is a relatively small percentage of students responding “Do Not Know” and this may indicate that these perceptions are somewhat more entrenched than other issues pertaining to CTE.

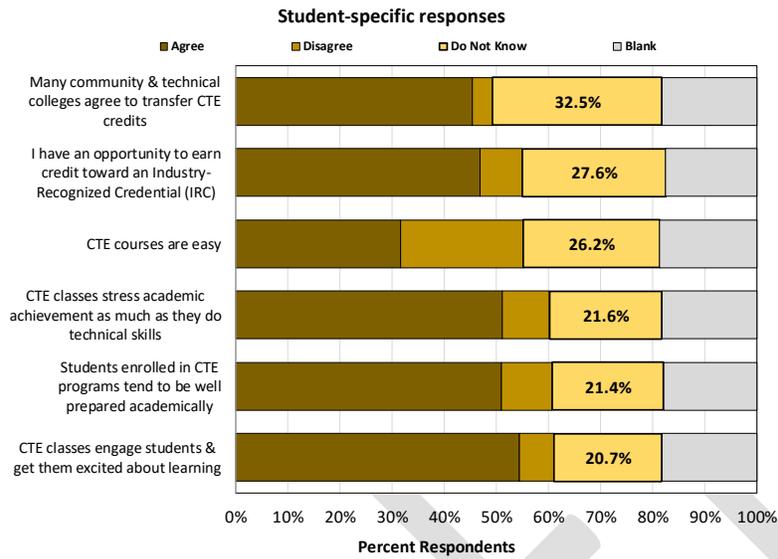
In addition to lacking knowledge about CTE-related careers, a significant number of students also lacked knowledge about the ways in which CTE can help them earn post-secondary degrees and industry

Figure 8



recognized certifications. Figure 9 shows that almost a third of students answered “Do Not Know” to the question “Many community & technical colleges agree to transfer CTE credits.” In addition, almost 28 percent of students did know that CTE can lead to Industry-Recognized Credentials that can make them more competitive when they enter the workforce.

Figure 9

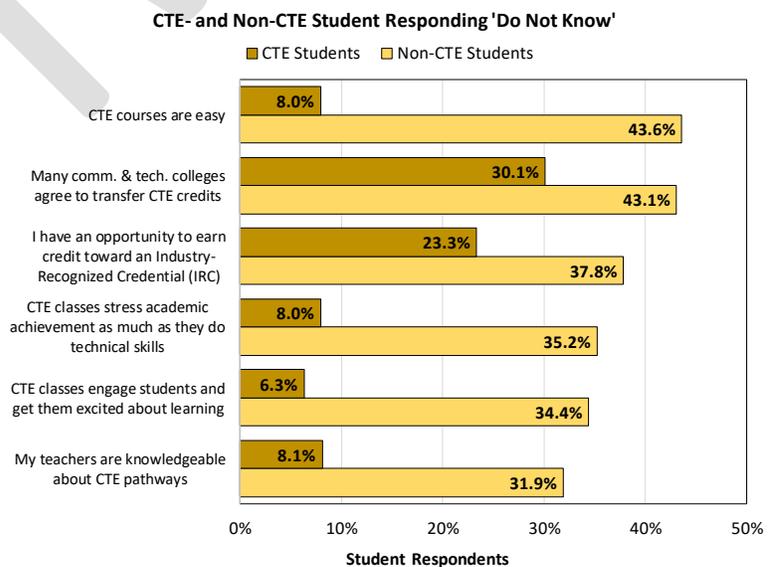


Exposure to CTE improves student awareness of CTE-related opportunities

The survey results show that a significant minority of students that lack awareness of CTE coursework, certifications and careers. As a result, an issue appears to be that lack of knowledge lack a knowledge of CTE, rather than have a negative perceptions of CTE. In spite of this, the survey results show that greater exposure to CTE classes and programs can students better comprehend CTE-related opportunities as indicated by the real differences between the 29 percent of student respondents who indicated that they were CTE students and those students who were not pursuing CTE. As a result of this question, we are able to compare CTE and non-CTE student response to discern whether or not exposure to CTE through CTE classes changes the knowledge students have about CTE.

Figure 10 shows that the biggest differences between CTE and non-CTE students are found in questions related to the content of CTE courses and the knowledge of CTE instructors. For instance, almost 44 percent

Figure 10



of non-CTE students indicated that they did not know if “CTE course are easy”. By contrast, only 8 percent of CTE students did not know if CTE course were easy. Similar gaps were seen in questions related to whether CTE classes stressed academic achievement as much as technical skills, the ability of CTE classes to get students excited about learning, and the extent to which teachers were knowledgeable about CTE career pathways. Moreover, there were significant differences between CTE and non-CTE students in their understanding of work-based learning opportunities offered by their school, their opportunities to earn Industry-Recognized Credentials, and the ability to transfer CTE credits to community and technical colleges.

Exposure to CTE courses, pathways, and opportunities appears to be one of the best ways to help students develop their knowledge of these opportunities. CTE students are more aware of the content of CTE courses and the academic rigor of those courses; they are consistently more cognizant of the connection between their courses and work based learning opportunities; and they are more likely to understand the credentials that are available through CTE courses as well as the opportunities those courses provide to earn transfer credits. While exposure to CTE is not the only way to tackle this overall lack of knowledge for non-CTE students, it does represent one tangible way to build knowledge based on the results of the survey.

Exposure to CTE and the opportunities available through these programs also needs to include parents and educators

The survey results clearly point towards exposure as a key means of helping students to understand the pathways and opportunities that CTE affords. However, students are not the only group that needs greater awareness about how CTE can provide opportunities to earn college credit and Industry-Recognized Credentials. Parents and teachers also remain important influences in student lives, and as a result we must also understand how their perceptions of CTE and their level of awareness about CTE career and opportunities.

Parents lack knowledge about CTE-related Credentials, Programs, or Opportunities

Parents who participated in the survey had very positive impression of CTE.²¹ More than 70 percent of parents thought that:

- CTE engaged students and got them excited about learning;
- CTE programs were good for their child;
- Their child should receive more real-world knowledge and skills during high school; and
- Exposure to CTE should begin before high school.

These responses are particularly notable since fewer than 30 percent of parents indicated that they had taken CTE courses when they were in school.

²¹ A total of 1,639 respondents (or 17 percent of the overall participants) identified themselves as parents in the survey.

In spite of this positive perceptions, significant proportions of parents lack knowledge of the career pathways, credentials, and opportunities available through these programs remains woefully inadequate. In particular, many parents are not aware of the opportunities available through CTE for their students. Figure 11 shows that more than half of parents answered 'Do Not Know' to the statement "Many community & technical colleges agree to transfer CTE credits." Additionally, a significant

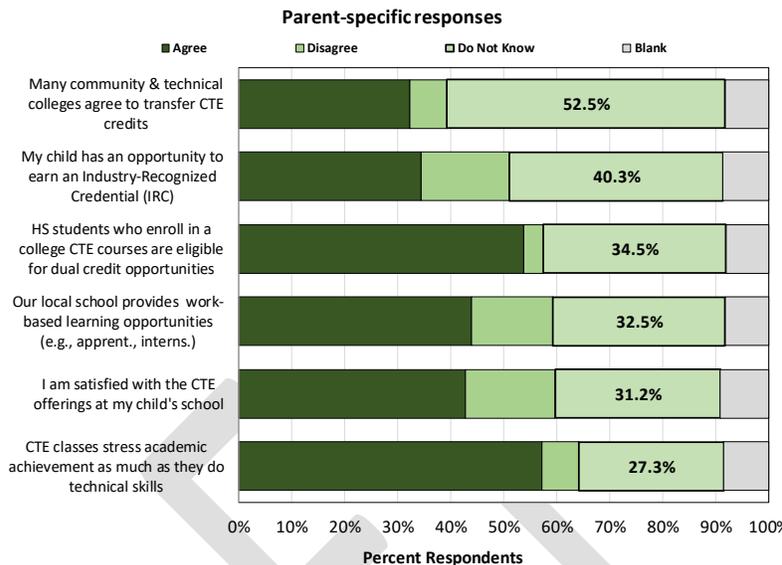
minority of parents lacked knowledge about their child's ability to earn industry recognized credentials and participate in work-based learning opportunities, or their school's CTE offerings more generally.

It should be noted that there was not significant variation in the responses of parents who participated in CTE when they were in school and those who did not, nor did we find any differences between those parents who hold at least a Bachelor's degree and those parents with less than a Bachelor's degree.²² This may be due in part to the more recent changes occurring in CTE. That said, this lack of knowledge may impact the ways in which parents advise their children.

Educators view CTE positively, but K-8 teachers lack knowledge about CTE

Educators' responses to the survey mirrored the overall responses of adults, with educators having overwhelmingly positive impressions of Career and Technical Education. Roughly 4,000 survey respondents identified themselves as educators.²³ Among this group, we see a strong affinity for CTE courses and a belief that they are integral for preparing students for future careers. For instance, over 90 percent of educators believed that Career and Technical Education can be a pathway into college for some students, and that CTE was as important as subjects such as math, English, science and social studies. Clearly, the educators who participated in this survey believe that CTE is not only good for the

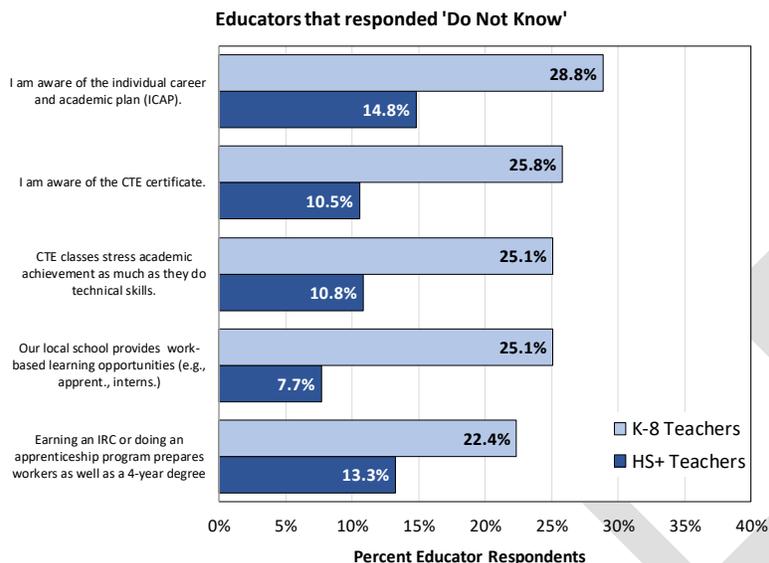
Figure 11



²²The only difference between subgroups of parents occurred between parents with at least a Bachelor's degree and those with less than a Bachelor's degree. Almost 36 percent of parents with at least a Bachelor's degree said that getting a 4-year degree is the most important step to success, compared with 24 percent of parents with less than a Bachelor's degree.

²³ Roughly, 2,750 participants identified as teachers and nearly 1,000 participants identified themselves as having a primary role of counselor or administrator. Among the nearly 2,750 teachers, almost 960 identified themselves as K-8 teachers and 1,765 identified as high school teachers or higher.

Figure 12



students who are participating in these courses, but also is a key method that schools have to prepare their students for their future careers.

We also see that educators are even more likely to believe that exposure to Career and Technical Education should begin before high school. Over 85 percent of all educators agreed with the statement “Exposure to CTE programming should occur prior to the start of high school.” This compares with almost 72 percent of parents who agreed with the

same statement.²⁴ Although the survey results demonstrate widespread support for CTE, it also indicates that a significant minority of K-8 teachers are not aware of the courses available in CTE or the current CTE opportunities currently provided by their schools. Figure 12 shows that almost 30 percent of K-8 teachers answered “Do Not Know” to the question of whether they were aware of Individual Career and Academic Plans (ICAP), a figure almost twice as great as high school teachers. Moreover, K-8 teachers were also significantly more likely to answer “Do Not Know” to statements asking about their awareness of the CTE certificate; work-based learning opportunities; the preparation provided by IRCs and apprenticeship programs; and the overall quality of the academic skills developed in CTE courses.

As a result, improving CTE awareness among this significant minority of K-8 teachers would strengthen their ability to convey the educational and career opportunities available to students.

Businesses value CTE certifications and credentials, but need stronger connections to CTE programs

Business leader survey responses mirrored the responses of the broader adult population. Namely, business leaders all had an overall positive impression of CTE. For instance,

- 86.5 percent of business leaders believed that CTE classes will teach students transferrable skills that will serve them well in this economy;
- 84.5 percent indicated that a CTE certificate would give added value or preference to potential employees; and

²⁴ We will note that only 51.9 percent of students agreed with this same statement.

- 79.1 percent noted that students who take CTE classes are better prepared for employment than those who do not take CTE.

As demonstrated in Figure 13, business not only value CTE education, but also believe that businesses have an important role in building relationships with educational providers to guide their CTE offerings. For instance, over 90 percent of employers believe that businesses should “partner with schools to provide students real world education & training experiences” and should also be “involved in the development of our school’s CTE courses.”

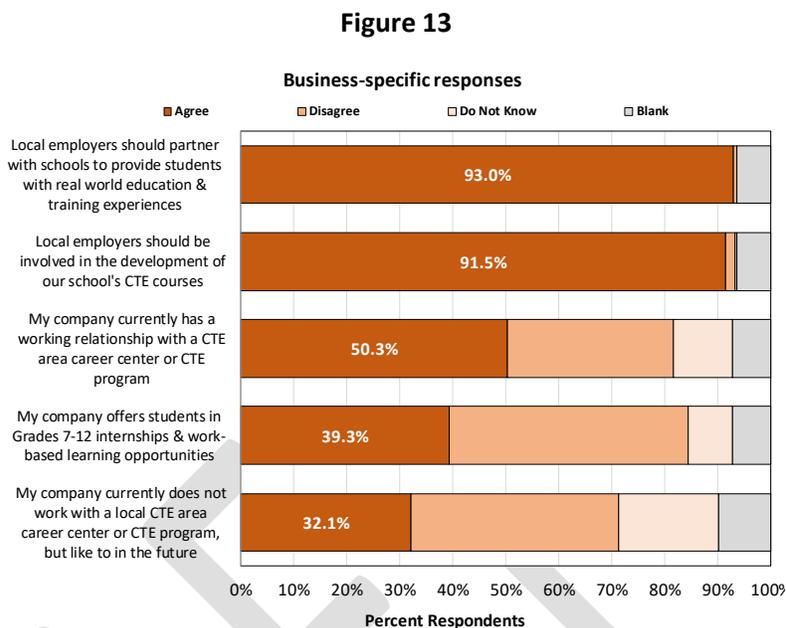
Although employers value CTE, a significant proportion of respondents indicated that are not actively connected to programs in their community. As Figure 13 shows, roughly half of business leaders had a working relationship with CTE programs, and less than 40 percent of business leaders currently offer students internships and work-based learning opportunities. Building stronger connections between employers and CTE programs will not only help employers solve some of their workforce issues, but will also help students build stronger knowledge about CTE careers and make CTE a more attractive educational pathway.

Key Findings and Conclusions

This survey represents the first recent effort to understand how Missourians perceive CTE programs. Nearly 10,000 Missourians took the time to the DESE survey and give their insight. The survey found that overall the survey have a positive view of CTE and see it as a pathway to help students pursue rewarding careers, and a tool for employers to find the kinds of workers their businesses need to succeed.

However, the survey results show that there are several issues that must be addressed in order to further grow and promote CTE in Missouri. Even though survey respondents had a positive impression of CTE, they nevertheless believe that many others have a negative view of CTE. For instance, a majority of adults continue to believe that CTE focuses on students who probably will not attend college and that CTE students are not as respected as those who take more traditional classes.

However, the good news is that students are less likely to hold these similar views. The survey results showed that more often than not students either had either a positive impression of CTE or had not yet



formed an opinion. Significant numbers of students were unaware of the earning potential associated with CTE careers, and almost a third of students did not know how CTE can help them pursue the industry certifications and postsecondary educational opportunities that will prepare them for those careers.

It is important to note that this lack of awareness was less an issue for students already exposed to CTE. Therefore, exposing more students to CTE courses and having ongoing conversations about the opportunities to earn certifications, transfer credits to college, and have work-based learning experiences should be a priority. In the absence of this information, students might limit their future options by focusing primarily on completing a 4-year course of study with a focus on traditional 4-year college disciplines. Exposure cannot stop with students, though. Routine conversations about CTE must also include parents and teachers, and these conversations should begin well before students get to high school.

Finally, successful CTE programs provide real work-based learning and career exploration opportunities. While employers want to engage with schools and schools want opportunities for their students, making these connections between employers, schools and students can prove challenging. As a result, there needs to be a continued focus on creating effective work-based learning opportunities, internships, and other means of exposing students the opportunities and demands of the workplace.

APPENDIX 1: Responses by County

County	Responses
Adair	10
Andrew	17
Atchison	20
Audrain	42
Barry	84
Barton	33
Bates	30
Benton	34
Bollinger	47
Boone	142
Buchanan	42
Butler	36
Caldwell	15
Callaway	97
Camden	32
Cape Girardeau	148
Carroll	36
Carter	3
Cass	218
Cedar	26
Chariton	30
Christian	71
Clark	5

Clay	111
Clinton	95
Cole	67
Cooper	53
Crawford	15
Dade	6
Dallas	55
Daviess	20
DeKalb	17
Dent	19
Douglas	4
Dunklin	75
Franklin	144
Gasconade	15
Gentry	6
Greene	141
Grundy	10
Harrison	10
Henry	27
Hickory	14
Holt	2
Howard	26
Howell	97
Iron	19
Jackson	287

Jasper	488
Jefferson	160
Johnson	58
Knox	5
Laclede	17
Lafayette	43
Lawrence	40
Lewis	14
Lincoln	35
Linn	65
Livingston	86
Macon	32
Madison	68
Maries	29
Marion	40
McDonald	5
Mercer	12
Miller	36
Mississippi	14
Moniteau	16
Monroe	28
Montgomery	22
Morgan	9
New Madrid	29
Newton	65

Nodaway	111
Oregon	18
Osage	17
Ozark	12
Pemiscot	25
Perry	35
Pettis	39
Phelps	84
Pike	41
Platte	50
Polk	53
Pulaski	43
Putnam	34
Ralls	54

Randolph	43
Ray	24
Reynolds	3
Ripley	11
Saline	60
Schuyler	2
Scotland	2
Scott	74
Shannon	4
Shelby	16
St. Charles	192
St. Clair	6
St. Francois	93
St. Louis	449

St. Louis City	87
Ste. Genevieve	83
Stoddard	43
Stone	19
Sullivan	8
Taney	27
Texas	36
Vernon	59
Warren	27
Washington	9
Wayne	16
Webster	43
Worth	11
Wright	17

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