

2022-23

Evaluation of Career and Technical Education

DEPARTMENT OF EVALUATION AND ASSESSMENT

Stephanie Elizalde, Ed. D.
Superintendent of Schools



2022-23

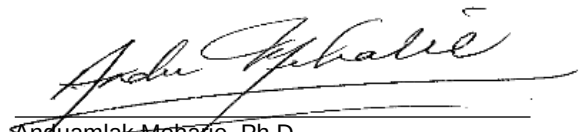
Evaluation of Career and Technical Education

Approved Report of the Department of Evaluation and Assessment

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Evaluation of Career and Technical Education

KEY FINDINGS AND RECOMMENDATIONS

The purpose of this evaluation was to examine (a) program implementation, (b) stakeholder perceptions, and (c) program outcomes.

Key Findings

The primary purpose of the Career and Technical Education (CTE) programs is to prepare students for college and career success by providing them with the skills necessary to be competitive in a global economy. To meet this goal, the Dallas Independent School District (ISD) offers courses across 51 comprehensive CTE pathways to students in grades six through 12. Through participation in CTE, students can earn diploma endorsements, industry certifications, educational certificates, and college credit hours. In addition, students can participate in paid internships. The CTE programs are coordinated within the Strategic Initiatives division of Dallas ISD. Program activities are partially funded through both state CTE funds and a grant established by the Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV). In 2022-23, the total Dallas ISD CTE budget was \$40,091,067, which included \$27,909,648 for payroll expenses, and \$3,185,484 for the Career Institutes.



The percentage of graduates who were College, Career or Military Ready in 2021-22 (2023 report, page 18) exceeded their pre-pandemic levels of 2018-19 (2020 report, page 18).



Compared to similar districts in Texas, Dallas ISD graduates had relatively fewer graduates who were college, career, or military ready (page 18). However, Dallas ISD had the highest percentage of all graduates who earned level I or level II certificates and an associate degree (page 18).



The percentage of graduates who earned an industry-based certification on the 2023 Texas Academic Performance Report (TAPR) increased over prior accountability years (page 18).



Middle school enrollment in CTE courses increased year-over-year, while high school enrollment remained stable (page 20). Enrollment in specialized programs continued to increase (page 25).



CTE stakeholders agreed that CTE programs provided career discovery and development opportunities to students that were aligned with current industry practices (page 28). Students participating in the internship opportunity indicated that they felt well prepared and had a positive experience overall (page 31). Overall, employers also noted that interns met their expectations and were satisfied with the Dallas ISD internship program overall (page 32).



General CTE course passing rates remained stable year-over-year (page 33), while dual credit passing rates increased (page 35).



Overall, CTE students earned more educational certificates (page 37) and industry-based certifications (page 37) in 2022-23 than in the prior school year.



A higher number of CTE graduates earned an associate degree in 2022-23 than in 2021-22 (page 39).



According to 2022-23 NSC data, a higher number of 2021-22 CTE graduates enrolled in college within one year of graduation than non-CTE graduates (page 41).

Recommendations

Based on the key findings, the following recommendations are offered for stakeholders.

Continue to work with the IT Department to accurately track CTE participation. Although steps were taken to more accurately track specialized student groups in PowerSchool¹, review of enrollment data indicated that CTE students were not accurately identified as such. CTE program staff should continue to work with campus data controllers to accurately track program participation via PowerSchool or specialized software (e.g. Eduthings) to increase the accuracy of future data analyses.

Continue to support specialized CTE initiatives including Career Institutes and NAF Academies. Specialized CTE programs provide work-based learning experiences that may otherwise be inaccessible to a large portion of Dallas ISD students. While enrollment in the Career Institutes and NAF academies increased year-over-year (one percent and 13 percent, respectively), participation in these programs increases the likelihood that students can earn a living wage after graduating high school. Therefore, the CTE department should consider allocating additional resources to these areas of the program.

Continue to promote CTE students' completion of educational certificates and industry-based certifications. CTE students earned 13,094 credentials in 2022-23, including 468 educational certificates and 12,626 industry-based certifications. Sixty-eight percent ($n=8,614$) of all industry certifications earned were A-F certifications providing points towards TEA's A to F accountability system. Although the numbers of industry-based certifications and educational certificates earned are currently at the highest level in the accountability system, given the importance of credentials in finding employment, the CTE staff should continue to find ways to promote the participation and completion of industry-based certifications or educational certificates.

¹ Starting in 2022-23, more than one student group (e.g. ECHS, P-TECH, CTE, NAF, etc.) can be tracked in PowerSchool via the Student Group variable.

2022-23

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PROGRAM BACKGROUND

The purpose of the Career and Technical Education (CTE) program is to prepare students for college and career success by equipping them with the necessary skills to be competitive in a global economy. Compared to traditional education, CTE education places more emphasis on providing hands-on skill training, rather than only teaching theoretical knowledge. Hanover Research (2020) has recommended that all students should be exposed to CTE programs in middle school, to learn and explore career options across all career clusters. This early exposure to CTE can help to engage students and to break down potential stereotypes held by students and their families. Hanover (2020) also recommended that middle school CTE activities should align within a broader K-12 career development system because students who participate in CTE programs may experience additional benefits. For example, Plasman and Gottfried (2020) found that participation in a vocational training or CTE program reduced absenteeism, and both Wilson *et al.* (2011) and Dougherty (2016) reported that participation in CTE programs may lead to a reduction in the high school dropout rate and an increase in the high school completion rate. Students who completed more than the average number of CTE courses had also better educational and labor market outcomes (Dougherty, 2016 & 2018). According to ACTE², individuals who completed a CTE associate degree earned up to \$10,000 more per year than those with associate degrees in other fields. Advance CTE, a non-profit organization representing State CTE directors, noted that nationwide, some 12.5 million students were enrolled in CTE programs.³

In 2022-23, the Dallas Independent School District (ISD) CTE department offered courses across 51 comprehensive CTE pathways to students in grades six through 12. Courses could be taken as one-off courses or in a program of study at participating middle and high schools. Students could also participate in CTE by taking courses through National Academy Foundation (NAF), Career Institutes (CI), or Pathways in Technology Early College High Schools (P-TECH) programs. Through participation in CTE, students could earn diploma endorsements, industry certifications, educational certificates, and college credit hours. In addition, students could participate in paid internships. The CTE program was coordinated by the CTE Department⁴ under Strategic Initiatives in 2022-23. Program activities were partially funded through state CTE funds and a grant established by the Carl D. Perkins Career and Technical Education Act of 2006. In 2022-23, 42,327 students participated in CTE.

² See <https://www.acteonline.org/nacte/>

³ Secondary and postsecondary programs.

⁴ For the context of the 2021-22 report, Career Institutes are included with the CTE Department. However, the Dallas ISD organizational hierarchy lists Career Institutes directly under Teaching and Learning, parallel to the CTE Department.

The Carl D. Perkins Vocational and Technical Education Act was first authorized by the federal government in 1984 and was most recently reauthorized as the Strengthening Career and Technical Education for the 21st Century (Perkins V) Act in 2018. The purpose of the Perkins V Act was to increase learner access to high-quality career and technical education programs to prepare students for the diverse needs of employers. The Texas Legislature passed House Bill 5 (HB 5) in 2013 encouraging high school students to complete foundation curriculum plus additional coursework under one of five diploma endorsements, three of which are CTE-related: (a) business and industry; (b) public service; and (c) Science, Technology, Engineering, and Mathematics (STEM). HB 5 required the Dallas ISD to make additional coursework available to high school students for offered endorsement areas resulting in rapid CTE coursework expansion in the years following its passage. Beginning in 2017-18, House Bill 22 (HB22) required the Texas Education Agency (TEA) to evaluate the academic performance of school districts with a rating of A through F based on three domains: (a) student achievement, (b) school progress, and (c) closing the gaps. College, Career, and Military Readiness (CCMR) indicators account for 40 percent of the weighted performance of high school campuses and school districts in the student achievement domain. CCMR indicators include dual-credit course completion, associate degrees earned, and industry-based certifications earned, among others.⁵

PROGRAM DESCRIPTION

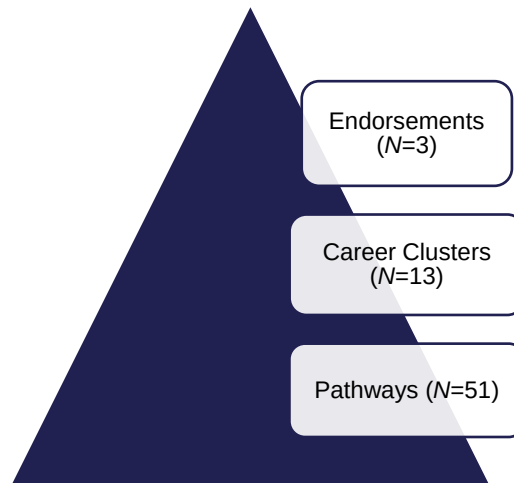
The sections below include the ECHS Program components, people, budget, and program goals. For all methodology, see Appendix B.

Program Components

TEA Requirements

CTE course offerings were centered around three endorsements: Business and Industry, Public Service, and STEM. Within each of the endorsements, a student can select a career cluster, followed by a pathway (Figure 1).

⁵ 2022 Accountability Manual can be accessed at <https://tea.texas.gov/texas-schools/accountability/academic-accountability/performance-reporting/2022-accountability-manual>

Figure 1: 2022-23 Organizational Chart of Career and Technical Education Offerings

Source: CTE department program document, Fall 2021.

Eight career clusters are offered for Business and Industry, four career clusters for Public Service, and one career cluster for STEM, culminating in a total of 51 comprehensive CTE pathways (Figure 2). See also Appendix C for a full list of CTE pathways by campus.

Figure 2: 2022-23 Number of Career and Technical Education Endorsements by Career Clusters and Pathways

Instructional Framework by Career Cluster and Pathway													
①	Business and Industry								Public Services				STEM
②	Agriculture, Food & Natural Resources	Architecture & Construction	Arts, A/V Technology & Communications	Business, Marketing & Finance	Hospitality & Tourism	Information Technology	Manufacturing	Transportation, Distribution & Logistics	Education	Health Science	Human Services	Law & Public Safety	Science, Technology, Engineering & Mathematics
③	5	6	8	4	3	2	2	4	1	7	2	3	4

Source: CTE department program document, Fall 2022.

Notes: 1) Endorsements, 2) Career Clusters, 3) Pathways. The CTE program offered a total of 51 pathways in 2022-23.

In 2020-21, Perkins V redefined pathways, resulting in the merging of several previously offered pathways. To better align with the new programs of study created by TEA, the number of pathways offered dropped from 135 in 2019-20 to 51 comprehensive pathways in 2020-21. While CTE courses were previously offered as either a CTE coherent sequence of courses or electives, TEA revised the way they characterized CTE students in 2020-21. Starting with the 2020-21 school year, CTE student were identified

by TEA as either CTE Participants, CTE Explorers, CTE Concentrators, or CTE Completers⁶ based on CTE course enrollment (Appendix C).

Dallas ISD Specialty CTE Programs

NAF Academies. NAF started at the Dallas ISD in the 1990s with Hospitality and Tourism themed academies. NAF academies were designed to be small learning communities that operate based on a “school within a school” model within the existing high school systems. Based around one of five high-growth career industries (Table 1), NAF academies provide students career-focused educational experiences within and outside the classroom to explore career interests and participate in career preparation activities including mock interviews and paid internships. The NAF curricula incorporate industry standards and practices, literacy strategies, and STEM integration, while emphasizing project-based learning. Students who successfully complete their academic courses, workplace projects, and internship can earn the NAFTrack Certification, indicating to post-secondary institutions and employers that the student is college- and career-ready. The NAFTrack Certified Hiring program is a commitment made by top American companies to consider these qualified students as eventual job applicants. All NAF academies have an open enrollment policy.

In 2022-23, the Dallas ISD, in cooperation with NAF, operated 39 NAF academies at 17 high schools, down from 44 academies at 18 high schools in 2021-22. Of 39 NAF academies, 27 academies (64%) were honored by NAF as distinguished academies⁷, compared to 28 academies in 2021-22. In addition, one academy was recognized as a NAF Model Academy. Each academy focuses on one of five themes: Engineering, Finance, Health Sciences, Hospitality and Tourism, and Information Technologies. The three most common career themes offered were Information Technologies ($N=10$), Finance ($N=9$), and Engineering ($N=8$). Most high schools ($n=11$, 65%) housing a NAF academy offered more than one career theme, with Conrad and Skyline high schools each hosting five academies (Table 1).

⁶ Generally, CTE Participants and Explorers are similar to students in prior years identified as CTE elective, whereas CTE Concentrators and Completers are similar to CTE Coherent Sequence students prior to 2020-21.

⁷ Distinguished academies have achieved NAF’s highest level of achievement. A total of 138 academies in the NAF network have reached Distinguished level (NAF, 2020).

Table 1: 2022-23 Number of NAF Academies by Career Theme and Campus

Campus	Academy of Engineering <i>n</i>	Academy of Finance <i>n</i>	Academy of Health Sciences <i>n</i>	Academy of Hospitality and Tourism <i>n</i>	Academy of Information Technologies <i>n</i>	Total Academies per Campus <i>N</i>
Adams	Y		Y	Y		3
Adamson		Y	Y			2
Carter		Y				1
Conrad	Y	Y	Y	Y	Y	5
Hillcrest	Y		Y			2
Jefferson	Y	Y		Y		3
Kimball				Y		1
Madison					Y	1
North Dallas	Y	Y			Y	3
Pinkston					Y	1
Samuell					Y	1
Skyline	Y	Y	Y	Y	Y	5
South Oak Cliff					Y	1
Spruce	Y	Y			Y	3
Sunset		Y	Y			2
White	Y				Y	2
Wilmer-Hutchins		Y		Y	Y	3
Overall	8	9	6	6	10	39

Source: Correspondence with NAF coordinator 06/27/23.

Notes: Y=NAF Academy offered. IDEA=Innovation, Design and Entrepreneurship Academy.

NAF provides curricula for four of the five career themes, while the Engineering curriculum is provided by Project Lead The Way (PLTW)⁸. To teach the NAF curricula, teachers must be TEA CTE-certified. PLTW offered a two-week long teacher certification training to schools offering the engineering curriculum for the first time.

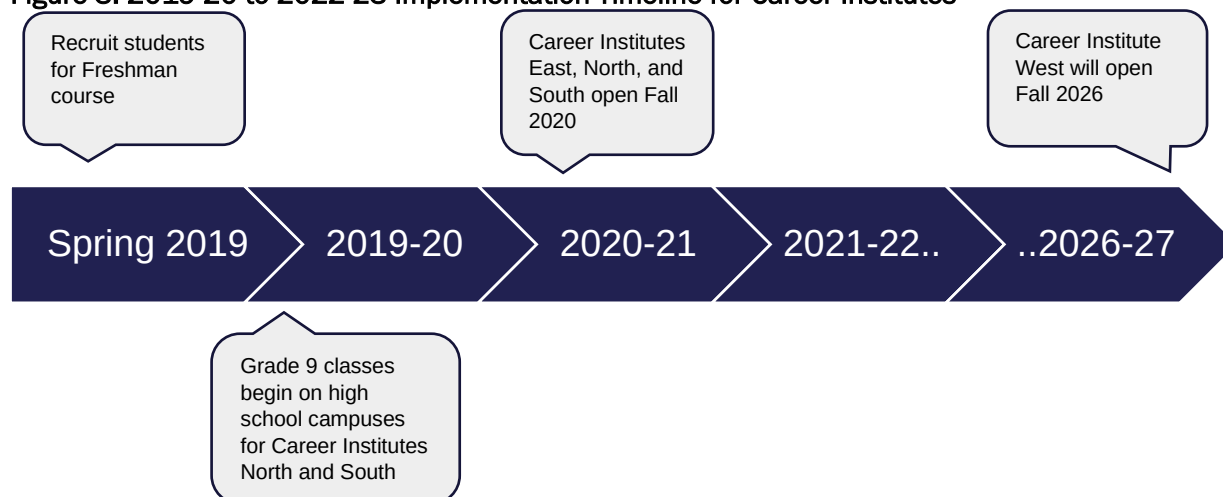
In 2022-23, the Dallas ISD NAF coordinator held three parent meetings to inform parents about paid internship opportunities available to students for the 2023 summer break. Parent meetings were held on December 13, 2022, January 12, 2023, and on February 7, 2023. Participation numbers were not provided by NAF staff. Overall, the NAF coordinator reported that 36 companies offered internship opportunities to 140 NAF students of which 113 internships were accepted. Eight of the 36 companies offered virtual internships, 11 companies offered hybrid internships, and 19 companies offered in-person internships.

Career Institutes. Career Institutes provide high school students the opportunity to obtain relevant workforce readiness skills and post-secondary education in high demand vocations to earn a living wage after graduating high school. Established in 2018, five campus-based Career Institutes operated during the 2018-19 school year (Grimberg, 2019). It was noted at a Board Briefing (June 7, 2018) that the intention was to establish a Career Institute at every Dallas ISD high school, each serving an in-demand trade. Campus-based Career Institutes either (a) utilized existing CTE programs and elevated them by formalizing relationships with industry partners and the Dallas College (formally known as the Dallas College District) or (b) established new programs where no prior CTE program serving an in-demand trade existed.

⁸ PLTW also provided the curriculum for Biomed (Health Sciences).

In a strategic shift in 2019, Dallas ISD moved away from campus-based Career Institutes to a system of stand-alone Career Institutes. None of the original five campus-based Career Institutes were rolled into the new Career Institutes system, and henceforth operate as regular CTE programs. The newly established Career Institutes function as a hub serving their surrounding high schools. By 2026-27, Dallas ISD plans to establish a total of four Career Institutes (Figure 3), one for each quadrant of the city (north, south, east, and west).

Figure 3: 2019-20 to 2022-23 Implementation Timeline for Career Institutes



Source: Interviews with CI Directors, March 2023.

CTE program documents indicated that “these state-of-the-art facilities will feature real-world learning spaces and industry- standard equipment, providing students access to post-secondary education, training, and career pathways that may be inaccessible on their home campus”.⁹ Pathways offered at Career Institutes are tuition-free for all Dallas ISD students and have open enrollment. Students will take Career Institute pathway courses for half a day, twice a week, at dedicated Career Institute campuses. Transportation of students from and to their home campus is provided free of charge (Table 2). According to the Dallas ISD Board Update presented by the Executive Director of STEM on March 7, 2019, structuring the Career Institutes as hubs has several advantages, including:

- *Cost-effectiveness:* Centralizing specialized equipment reduces the number of hours equipment is idle, allows for easier maintenance, and increases the number of students who can attend each class.
- *Student choice:* Home campuses can now offer any pathway available at Career Institutes; therefore, students will have access to more pathways, career endorsements, and industry partners.

⁹ Career Institutes brochure titled “Developing Leaders Building Futures” and March 7, 2019 Dallas ISD Board Briefing on Career Institutes.

- *Student recapture and retention:* Because of the unique value that they bring, Career Institutes will help attract and retain students in the Dallas ISD.

Construction-related pathways were among the first pathways offered by Career Institutes because they share the same principal courses. Construction-related pathways included construction and carpentry; interior design; plumbing and pipefitting; electrical and solar technology; and heating ventilation, air conditioning and refrigeration. Furthermore, industry sources indicated that with a current shortage of up to 20,000 skilled workers, construction will be a vocation in high demand in the Dallas Metroplex until at least 2030.¹⁰ Career Institute leadership has extended existing pathway offerings for 2021-22 school year by opening Patient Care Technician and Pharmacy Technician pathways. (See Appendix B for a full list of 2021-22 Career Institute Pathways.)

Table 2: 2022-23 Feeder High Schools for Career Institutes East, South and North

Career Institute East	Career Institute North	Career Institute South
Adams	Conrad	Adamson
Lincoln	Hillcrest	Carter
Madison	Jefferson	Kimball
Samuel	North Dallas	Molina
Spruce	White	Pinkston
Woodrow Wilson		Roosevelt
		South Oak Cliff
		Sunset
		Wilmer Hutchins

Source: Correspondence with Career Institutes Directors, Spring 2023.

Pathways in Technology Early College High Schools (P-TECH). In 2022-23, the Dallas ISD operated 18 P-TECHs. Each P-TECH was paired with an institution of higher learning (IHE) and one or more industry partners. Students enrolled in a P-TECH can earn up to 60 tuition-free, dual-credit hours and graduate with an Associate Degree of Applied Science. Out of the 60 dual-credit hours, students can take up to 18 credit hours of CTE related coursework. P-TECH students also have an opportunity to earn industry-based certifications and educational certificates in their selected career pathways that are attractive to employers and gain valuable workplace skills through one of the industry partners.

CTE Implementation in Middle Schools

Fifty-four out of 56 middle schools¹¹ (96%) offered one or more CTE courses in 2022-23. Of the 31 CTE courses offered, 18 courses qualified for middle school credit, while 13 courses could be taken for high school credit. Three of the 31 courses utilized PLTW Gateway curricula.¹² In 2022-23, updates were introduced to the College and Career Readiness class¹³. The new curriculum was designed by Education Opens Doors with input from Dallas ISD leadership to better educate students about Dallas ISD program

¹⁰ September 2019 Dallas ISD Board Update on Career Institutes.

¹¹ Includes Elementary/Middle, Middle, and Middle/High level schools as well as iLearn Virtual Academy.

¹² PLTW offers the following three types of curricula: PLTW Launch (Grades K-5), PLTW Gateway (Grades 6-8), and PLTW Programs (Grades 9-12).

¹³ College Career Readiness was replaced by Path to College & Career 2 class.

opportunities (e.g. magnet, P-TECH, CTE, NAF) available to them. Moreover, the course now targeted grade seven students rather than grade eight students to better align with students' course planning timelines. Fifty-three middle schools (95%) offered the updated College and Career Readiness class. The Dallas ISD CTE Department provided support to those middle schools interested in opening CTE courses by facilitating curricula implementation, coordinating the training of teachers, and purchasing supplies. It is important to note that providing CTE services to middle school students does not increase the amount of funds the Dallas ISD receives from TEA for its CTE services.

Credentials

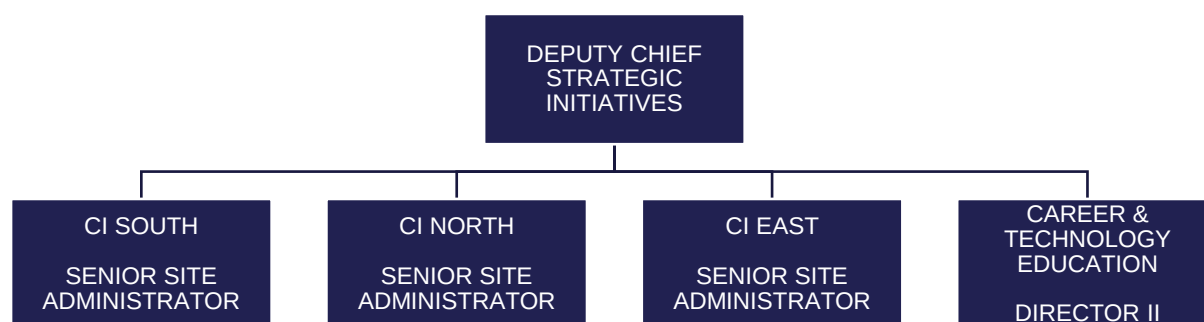
Certificates are types of credentials that are predominately awarded by two-year institutions of higher learning for the satisfactory completion of a workforce education program. TEA quoted a 2013 study by Georgetown University that stated certificates have the largest growth among college credentials over the past 30 years.¹⁴ Several levels of certificates exist in Texas, including Enhanced Skills or Occupational Skills Certificates (between nine to 15 credit hours), Level I certificates (between 15 to 42 credit hours), Level II certificates (between 30 to 51 credit hours), and Advanced Technical Certificates (requiring a previously awarded associate or bachelor degree and 16 to 50 credit hours).

Certifications are types of credentials that are usually granted by an organization, such as a trade association, validating that an individual possesses certain skills. An occupation may have multiple certifications with different levels of expertise. Unlike certificates, certifications are often time-limited credentials and need to be renewed periodically. Since 2017-18, school districts are required to report student-level data to TEA about industry-based certifications that meet TEA accountability requirements. The 2021-22 list of approved industry-based certifications for the A-F accountability system included 244 certifications within 14 primary career clusters.

Program Staff

CTE programs are coordinated within the Strategic Initiative division of Dallas ISD. Career Institutes are led by three Senior Site Administrators while the general Career Technical Education Department is led by a Director (Figure 4).

¹⁴ Understanding Credentials in Texas: Certificates & Certifications (2018).

Figure 4: 2022-23 CTE Organizational Structure

Source: Dallas ISD Organizational Chart, June 2023.

Notes: Executive Assistant and Program Manager III excluded.

CIs Staffing. CIs function similarly to Dallas ISD schools. Campuses are led by a senior site administrator and supported by Principal Assistant(s), an office manager and administrative assistant. Campus support staff includes a nurse, school monitor(s), data controller, Food Services personnel, and custodial staff. Students are supported by Teachers, teacher assistants, counselors, instructional specialists and coordinators.

In 2022-23, a total of 83 teachers (21 for Career Institutes East, 28 Career Institutes North, and 34 for Career Institutes South) taught 51 courses¹⁵ at the Career Institutes campuses. While teachers at the Career Institutes were masters of their trade, under House Bill 1842, (i.e., District of Innovation), teachers were not required to possess a valid TEA teaching certificate. Overall, 43 percent of teachers ($n=36$) taught under the District of Innovation exemption. To help these teachers learn pedagogy, Career Institute staff held PD sessions throughout the 2022-23 school year. Topics included classroom management skills, ESL strategies, lesson planning, and Career Institutes updates.

NAF Academies. A total of 92 teachers taught NAF courses in 2022-23 (one less than in 2021-22 with 93 teachers). The number of teachers per campus varied (from one to 13 teachers) based on the number of NAF academies offered and number of students enrolled. On average, two teachers were employed by each NAF academy. In preparation for the 2022-23 school year, teachers were encouraged to participate in the NAF 2022 Conference on July 11-13, 2022 and participated in Dallas ISD's professional development (PD) sessions on September 22, 2023.

Central Office Staffing. General CTE courses and NAF courses were coordinated by the CTE department. Led by a Director II, the division consisted of a director, two managers, 15 coordinators, and an administrative assistant.

¹⁵ Includes five language courses.

Budget

TEA brochure (n.d.)¹⁶ noted that “Under the Texas Education Code (TEC), §42.154, a school district is eligible to receive weighted funding for each eligible full-time equivalent (FTE) student in average daily attendance (ADA) in an approved CTE program. In addition to this weighted funding, a school district is also eligible to receive a flat amount of \$50 per FTE enrolled in certain advanced CTE courses or programs”.¹⁷ In other words, districts receive 35 percent more funding for CTE students than other students. Weighted CTE and advanced course funding are calculated as follows:

$$\text{CTE weighted funding} = \text{eligible CTE FTEs} \times \text{district's adjusted allotment (AA)} \times 1.35$$

$$\text{CTE advanced course funding} = \text{eligible CTE FTEs} \times \$50$$

In 2022-23, TEA allocated a total of \$60,157,943¹⁸ in CTE funding to the Dallas ISD, identical to the 2021-22 Legislative Planning Estimate (LPE) allotment. Based on TEA requirements, 55 percent of CTE state funding had to be spent on the CTE program, and 45 percent could be allocated to the general operating fund. In general, CTE staff and teacher salaries, purchased curricula, equipment, and professional development were paid from the CTE portion, while some of the general operating funds were used to pay for operating costs of CTE classrooms, labs, and buildings. Of the TEA funds, the Dallas ISD allocated \$37,595,745 (63%) to the CTE program with 72 percent (\$26,970,143) covering payroll expenses (Table 3). In addition, the district received \$2,495,322 from the Perkins V Grant. No Early College P-TECH and Industry Cluster Innovative Academies (ICIA) grants were received in 2022-23. In total, CTE had a budget of \$40,091,067 in 2022-23 which included \$3,185,484 for the Career Institutes (CI)¹⁹. With \$9,338,638, Supplies and Materials were the largest expenditure (77%)²⁰ of the CI budget, followed by other operational costs (\$830,158, 7%).

Table 3: 2022-23 Dallas ISD CTE Budget

Description	TEA Funds	Perkins Grant	Total
Payroll Costs	26,970,143	939,505	27,909,648
Professional & Contracted Services	1,144,042	467,581	1,611,623
Supplies and Materials	8,548,037	790,601	9,338,638
Other Operational Costs	532,523	297,635	830,158
Capital Outlay – Land/Buildings/Equipment	401,000	-	401,000
Overall	37,595,745	2,495,322	40,091,067

Source: Dallas ISD Budget Services Department, 06/21/22. Dallas ISD Department of Special Revenue, 12/19/23.

Notes: Budget in US Dollars. - = no funds were attributed to this category. Adopted Budgets.

¹⁶ Source: <https://capitol.texas.gov/tlodocs/84R/handouts/C4002016092909001/e19232c7-5a98-4919-a2b2-99677d0304c9.PDF>

¹⁷ The allotment applies to students grades nine through twelve enrolled in CTE program, and students with disabilities in grades seven through twelve enrolled in Career Technology for the Disabled (CTED) programs.

¹⁸ LPE Allotment noted in the November 20, 2023 2022-23 Funding School Program Report

¹⁹ A decrease of \$76,610 over 2020-21

²⁰ Not including payroll costs.

District Goals

While the CTE Department shared no specific goals for the 2022-23 school year, the district has set student outcome goals (Goal 5²¹) related to CCMR including two goals that are impacted by CTE:

1. GPM 5.1: The percent of CCMR students meeting the Texas Success initiative requirements for college readiness shall increase from 27.1% to 39.0% by August 2025. (*Progressing*²²)
2. GPM 5.2: The percent of graduates obtaining Industry-Based Certifications to be career ready shall increase from 0.8% to 37% by August 2025. (*Progressing*²³)

EVALUATION QUESTIONS AND RESULTS²⁴

EQ1: How did Dallas ISD graduates perform on CTE related 2022-23 CCRM accountability indicators?

Key findings from this section:



The percentage of graduates who were College, Career or Military Ready in 2021-22 (2023 report) exceeded their pre-pandemic levels of 2018-19 (2020 report), showing a six percentage points increase from 61 percent to 67 percent.



Overall, Dallas ISD graduates had the second lowest percentage of all graduates to be college, career, or military ready when compared to similar districts in Texas (67% vs ≥69%). Only graduates of Forth Worth ISD scored lower (63%).



Compared to other districts, the Dallas ISD had the highest percentage of all graduates who earned level I or level II certificates (3% vs ≤1%) and an associate degree (10% vs ≤5%).



The percentage of graduates who earned an industry-based certification increased by 27 percentage points (2% vs 30%) from 2018-19 to 2021-22; 19 percentage points over 2020-21.

Although 2023 Texas district/school report cards and accountability data were not available at the time of this report, some CCMR related indicators were available via the 2023 Texas Academic Performance Report (TAPR).

The percentage of Dallas ISD graduates who were College, Career or Military Ready in 2021-22 (2023 report) exceeded their pre-pandemic levels of 2018-19 (2020 report), showing a six percentage points increase (67% vs 61%), and an increase by eight percentage points over 2020-21 (59%, Table 4). On CTE-related categories for the same four-year timeframe (2018-19 to 2021-22), five of the seven presented CCR measures showed a percentage increase: (a) dual course credits in any subject increased by 14 percentage points (14% vs 28%), (b) the percentage of graduates who attained an Associate Degree

²¹ Student Outcome Goal 5: The percent of graduates who are college, career, or military ready (CCMR) from Domain 1 shall increase from 42.0% to 67% by June 2025.

²² 2023 Texas Academic Performance Report (TAPR) indicated that 27 percent of 2021-22 graduates met TSI criteria in both ELA/Reading and Mathematics. Please see page 19 for additional CCMR measures.

²³ 2023 TAPR report indicated that 29 percent of all 2021-22 graduated earned an industry-based certification.

²⁴ For all methodology, see Appendix B.

increased by seven percentage points (3% vs 10%), (c) the percentage of graduates who earned an industry-based certification increased by 27 percentage points (2% vs 29%), (d) the percentage of graduates who completed Level I or Level II certificates increased by two percentage points (1% vs 3%), and (e) graduates who received special education services and earned an advanced degree plan increased by one percentage point (3% vs 4%). However, two categories showed a slight decrease over the four-year timeframe including the percentage of graduates who met TSI criteria in both ELA/Reading and Mathematics (28% vs 27%) and the percentage of graduates who completed Individual Education Programs and Workforce Readiness (2% vs 1%).

Table 4: 2020 to 2023 Dallas ISD College, Career, and Military Readiness Indicators

Indicator	2020 %	2021 %	2022 %	2023 %
College, Career or Military Ready	60.5	49.1	58.5	66.5
Met TSI criteria in both ELA/Reading and Mathematics	27.6	26.5	25.3	26.8
Dual Course Credits (Any Subject)	13.8	21.2	31.0	27.7
Associate Degree	3.0	7.6	11.8	9.8
Earned an industry-based certification from approved list	1.7	3.0	10.3	29.4
Earned a level I or level II certificate in any workforce education area	0.9	4.1	3.9	3.1
Graduate with Completed IEP and Workforce Readiness	2.3	2.7	2.0	1.2
Identified as receiving special education services and earned an advanced degree plan	3.1	3.9	4.5	4.4

Source: 2023 Texas Academic Performance Report (TAPR) data accessed on 01/12/2024 at tea.texas.gov.

Overall, Dallas ISD graduates had the second lowest percentage of all graduates who were college, career, or military ready compared to similar districts in Texas (67% vs ≥69%); only graduates of Fort Worth ISD scored lower (63%). Dallas ISD had the lowest percentage of all graduates who met TSIA criteria in both ELA/Reading and Mathematics (27% vs ≥35%) and identified as receiving special education services and earned an advance degree plan (4% vs ≥5%). Compared to other districts, the Dallas ISD had the highest percentage of all graduates who earned level I or level II certificates (3% vs ≤1%) and an associate degree (10% vs ≤5%). In all other categories, the Dallas ISD scored in the lower to mid-range.

Table 5: 2023 Dallas ISD, Austin ISD, El Paso ISD, Fort Worth ISD, Houston ISD, San Antonio ISD CTE College, Career, and Military Readiness Indicators

Indicator	Dallas ISD %	Austin ISD %	El Paso ISD %	Fort Worth ISD %	Houston ISD %	San Antonio ISD %
College, Career or Military Ready	66.5	77.1	77.9	63.0	69.4	80.6
Met TSI criteria in both ELA/Reading and Mathematics	26.8	63.8	57.6	42.1	36.4	35.3
Dual Course Credits (Any Subject)	27.7	31.5	34.4	13.0	14.6	35.8
Associate Degree	9.8	0.5	3.9	4.3	2.4	5.2
Earned an industry-based certification from approved list	29.4	6.9	8.6	13.6	30.6	41.8
Earned a level I or level II certificate in any workforce education area	3.1	1.1	0.0	0.0	0.6	1.2
Graduate with Completed IEP and Workforce Readiness	1.2	2.7	1.0	2.7	1.3	2.1
Identified as receiving special education services and earned an advanced degree plan	4.4	5.2	5.1	4.6	5.0	7.4

Source: 2023 Texas Academic Performance Report (TAPR) data accessed on 01/12/2024 at tea.texas.gov.

EQ2: How were CTE programs implemented in 2022-23?

This section includes the characteristics of students served by the CTE programs in 2022-23.

Key findings from this section:



During the 2022-23 school year, 42,327 students participated in CTE, including 11,937 middle school students (28%) and 30,390 high school students (72%), an increase of 2 percent ($n=948$) compared to 2021-22.



Middle school enrollment in CTE courses increased by four percentage points from 2021-22 to 2022-23 (38% vs 42%), while high school enrollment remained stable (77%).



In 2022-23, 18,962 of the 42,327 CTE students were identified as CTE Participants (45%), followed by CTE Explorers ($n=10,424$, 25%), Concentrators ($n=9,798$, 23%), and CTE Completers ($n=3,143$, 7%).



In 2022-23, CTE students were enrolled on average in 1.1 career clusters. Career clusters with the highest enrollment were Business Management & Administration (31%), followed by Science, Technology, Engineering & Mathematics (19%), and Arts Audio Video (A V) Technology Communications (14%).



A total of 14,870 high school students enrolled in CTE courses through one or more specialized programs including the Career Institutes ($n=4,203$), NAF Academies ($n=8,483$), and P-TECHs ($n=4,668$).



In 2022-23, 39 NAF Academies operated at 17 Dallas ISD campuses. Overall, 10 percent of NAF participants ($n=861$) enrolled in more than one academy (max academies enrolled=4). NAF academies with the highest enrollment numbers for 2022-24 were Academy of Finance ($n=3,274$), followed by Academy of Information Technologies ($n=2,728$), and Academy of Engineering ($n=1,314$).



In 2022-23, 4,203 CTE students enrolled in 5,765 courses offered by three Career Institutes. Compared to 2021-22, enrollment increased by one percent ($n=51$).

Overall CTE Enrollment and Demographic Characteristics

During the 2022-23 school year, 42,327 students participated in CTE, including 11,937 middle school students (28.2%) and 30,390 high school students (71.8%, Table 6), an increase of 2.3 percent ($n=948$) compared to 2021-22. Overall, 62 percent of all middle and high school students were enrolled in a CTE course. Forty-two percent of middle school students were enrolled in a CTE course, an increase of five percentage points over 2021-22 (38%, Lorenz 2023). Middle school CTE enrollment percentage ranged from three percent in grade six to 71 percent in grade seven. High school CTE enrollment percentages ranged from 72 percent in grade 12 to 79 percent in grade 11. Overall, 77 percent of high school students

were enrolled in CTE courses, indicating that CTE enrollment in high schools remained stable compared to 2021-22 (77%, Lorenz 2023).

Table 6: 2022-23 Student Enrollment by Grade

Grade	Non-CTE		CTE		Total <i>N</i>
	<i>n</i>	%	<i>n</i>	%	
Middle School					
Grade 6	8,819	97.3	248	2.7	9,067
Grade 7	2,756	29.2	6,676	70.8	9,432
Grade 8	4,851	49.2	5,013	50.8	9,864
High School					
Grade 9	2,718	22.7	9,268	77.3	11,986
Grade 10	2,250	20.9	8,518	79.1	10,768
Grade 11	1,605	20.6	6,176	79.4	7,781
Grade 12	2,528	28.2	6,428	71.8	8,956
Overall					
Overall Middle School	16,426	57.9	11,937	42.1	28,363
Overall High School	9,101	23.0	30,390	77.0	39,491
Overall	25,527	37.6	42,327	62.4	67,854

Source: End-of-year demographic file, 05/12/23. Dallas ISD course file, 08/31/23. CTE course file, 12/15/23.

The characteristics of district CTE students (Table 7) were similar to middle and high school students not enrolled in the CTE program (within three percentage points difference). A smaller percentage of CTE students received special education services (9%) compared to non-CTE students (14%).

Table 7: 2022-23 Student Characteristics

	MS CTE (n=11,937)		HS CTE (n=30,390)		District All CTE (N=42,327)		District Non-CTE (N=25,527)	
	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%	<i>N</i>	%
Grade								
Grade 6	248	2.1	-	-	248	0.6	8,819	34.5
Grade 7	6,676	55.9	-	-	6,676	15.8	2,756	10.8
Grade 8	5,013	42.0	-	-	5,013	11.8	4,851	19.0
Grade 9	-	-	9,268	30.5	9,268	21.9	2,718	10.6
Grade 10	-	-	8,518	28.0	8,518	20.1	2,250	8.8
Grade 11	-	-	6,176	20.3	6,176	14.6	1,605	6.3
Grade 12	-	-	6,428	21.2	6,428	15.2	2,528	9.9
Gender								
Female	5,762	48.3	14,803	48.7	20,565	48.6	12,869	50.4
Male	6,175	51.7	15,587	51.3	21,762	51.4	12,658	49.6
Race / Ethnicity								
Asian	101	0.8	386	1.3	487	1.2	276	1.1
African American	2,220	18.6	5,968	19.6	8,188	19.3	4,877	19.1
Hispanic	8,827	73.9	22,549	74.2	31,376	74.1	18,228	71.4
White	555	4.6	999	3.3	1,554	3.7	1,628	6.4
Other	234	2.0	488	1.6	722	1.7	518	2.0
Student Characteristics								
At Risk Status	8,488	71.1	20,782	68.4	29,270	69.2	17,387	68.1
Eco Dis Status	10,190	85.4	25,123	82.7	35,313	83.4	20,705	81.1
English Learner	6,171	51.7	14,324	47.1	20,495	48.4	12,514	49.0
Special Education	1,242	10.4	2,697	8.9	3,939	9.3	3,647	14.3
TAG Eligible	2,965	24.8	5,587	18.4	8,552	20.2	5,334	20.9

Source: End-of-year demographic file, 05/12/23. Dallas ISD course file, 08/31/23. CTE course file, 12/15/23.

Note: A - indicates that no students were enrolled in that grade level. MS=middle school, HS=high school, Eco Dis=economically disadvantaged. Column percentages may not sum to 100 due to rounding.

CTE Student Enrollment by Status

In 2022-23, 45 percent of the 42,327 CTE students were CTE Participants ($n=18,962$), 25 percent were CTE Explorers ($n=10,424$), 23 percent were Concentrators ($n=9,798$), and seven percent were CTE Completers ($n=3,143$, Table 8). All middle school students were either CTE Participants ($n=11,356$, 95%) or CTE Explorers ($n=581$, 5%). The highest number of high school students were CTE Explorers ($n=9,843$, 32%) and CTE Concentrators ($n=9,798$, 32%), followed by CTE Participants ($n=7,606$, 25%) and CTE Completers ($n=3,143$, 10%). More high school students were either CTE Participants or CTE Explorers than CTE Concentrators or CTE Completers in grade nine (93% vs 7%) and grade 10 (56% vs 44%). However, more students were identified as CTE Concentrators or CTE Completers in grade 11 (65% vs 35%) and grade 12 (72% vs 28%).

Table 8: 2022-23 CTE Student Enrollment by Status

Grade	CTE Participant		CTE Explorer		CTE Concentrator		CTE Completer		Total N
	n	%	n	%	n	%	n	%	
Middle School									
Grade 6	247	99.6	1	0.4	-	-	-	-	248
Grade 7	6,599	98.8	77	1.2	-	-	-	-	6,676
Grade 8	4,510	90.0	503	10.0	-	-	-	-	5,013
High School									
Grade 9	5,322	57.4	3,337	36.0	607	6.5	2		9,268
Grade 10	1,325	15.6	3,479	40.8	3,564	41.8	150	1.8	8,518
Grade 11	625	10.1	1,563	25.3	3,068	49.7	920	14.9	6,176
Grade 12	334	5.2	1,464	22.8	2,559	39.8	2,071	32.2	6,428
Overall									
Middle School	11,356	95.1	581	4.9	-	-	-	-	11,937
High School	7,606	25.0	9,843	32.4	9,798	32.2	3,143	10.3	30,390
Total	18,962	44.8	10,424	24.6	9,798	23.1	3,143	7.4	42,327

Source: End-of-year demographic file, 05/12/23. Dallas ISD course file, 08/31/23. CTE course file, 12/15/23. CTE Student Identifier, 12/15/23.

Note: - = no students were identified.

Enrollment by Career Cluster

In 2022-23, 42,327 middle and high school students enrolled in one to five career clusters (*mean*=1.1). Career clusters with the highest enrollment were Business Management & Administration (31%),²⁵ followed by Science, Technology, Engineering & Mathematics (19%), and Arts Audio Video (A V) Technology Communications (14%, Table 9). Student enrollment data by school level and status can be found in Appendix F, Table 1.

Districtwide, CTE students took the highest percentage of courses within the Business Management & Administration cluster (24%),¹¹ followed by the Science, Technology, Engineering & Mathematics cluster (14%), and Arts A V Technology Communications (9%, Table 10). The CTE groups with the highest enrollment within the Business Management & Administration cluster were CTE Explorers and CTE Concentrators and (31% and 39%, respectively). Additional CTE course enrollment data by school level and status can be found in Appendix F, Table 2.

²⁵ General Elective CTE Courses were not noted as it is not an actual career cluster but a catchall category for courses that can serve more than one cluster.

Table 9: 2022-23 CTE Student Enrollment by Career Cluster

Career Cluster	CTE Participant <i>n</i>	CTE Explorer <i>n</i>	CTE Concentrator <i>n</i>	CTE Completer <i>n</i>	Total CTE Enrollment <i>N</i>	Enrollment by Cluster %
Business Marketing Finance	3,589	4,328	4,246	841	13,004	30.7
General Elective CTE Courses*	9,441	1,564	832	622	12,459	29.4
Science, Technology, Engineering & Mathematics	3,500	2,353	1,884	364	8,101	19.1
Arts A V Technology Communications	2,652	1,448	1,358	527	5,985	14.1
Information Technology	1,187	1,376	1,383	435	4,381	10.4
Health Science	489	1,286	1,461	604	3,840	9.1
Human Services	729	991	907	312	2,939	6.9
Law Public Service	376	1,022	829	259	2,486	5.9
Architecture Construction	368	530	767	364	2,029	4.8
Hospitality Tourism	321	581	533	283	1,718	4.1
Transportation Distribution Logistics	155	419	274	159	1,007	2.4
Agriculture Food Natural Resources	156	218	223	108	705	1.7
Manufacturing	123	217	143	21	504	1.2
Education Training	26	78	169	36	309	0.7

Source: End-of-year demographic file, 05/12/23. Dallas ISD course file, 08/31/23. CTE course file, 12/15/23. CTE Student Identifier, 12/15/23.

Note: Total number of CTE students enrolled in 2022-23 was 42,327. Column percent does not sum to 100 percent as student could enroll in more than one career cluster. * = General Elective CTE Courses is not a CTE cluster but serves as a holder for CTE courses that can serve more than one cluster. A V = Audio Video.

Table 10: 2022-23 CTE Course Enrollment by Career Cluster

Career Cluster	CTE Participant <i>n</i>	CTE Explorer <i>n</i>	CTE Concentrator <i>n</i>	CTE Completer <i>n</i>	Total CTE Enrollment <i>N</i>	Enrollment by Cluster %
Business Marketing Finance	3,856	5,396	6,833	1,566	17,651	24.0
General Elective CTE Courses*	10,521	2,008	999	788	14,316	19.5
Science, Technology, Engineering & Mathematics	4,225	3,155	2,539	531	10,450	14.2
Arts A V Technology Communications	2,700	1,527	1,532	1,022	6,781	9.2
Information Technology	1,207	1,550	1,756	786	5,299	7.2
Health Science	494	1,380	1,865	1,286	5,025	6.8
Human Services	760	1,138	1,180	461	3,539	4.8
Law Public Service	401	644	1,393	525	2,963	4.0
Architecture Construction	377	1,058	940	377	2,752	3.7
Hospitality Tourism	321	594	604	328	1,847	2.5
Transportation Distribution Logistics	155	442	300	197	1,094	1.5
Agriculture Food Natural Resources	157	262	294	136	849	1.2
Manufacturing	123	223	155	23	524	0.7
Education Training	26	78	169	47	320	0.4

Source: End-of-year demographic file, 05/12/23. Dallas ISD course file, 08/31/23. CTE course file, 12/15/23. CTE Student Identifier, 12/15/23.

Note: Student could enroll in more than one career cluster. * = General Elective CTE Courses is not a CTE cluster but serves as a holder for CTE courses that can serve more than one cluster. A V = Audio Video.

CTE Enrollment and Demographic Characteristics by Specialized CTE Program

High school students were able to participate in traditional CTE course offerings and enroll in specialized CTE programs (Career Institutes, NAF Academies, and P-TECHs). Of the 30,390 high school students who enrolled in CTE courses in 2022-23, 14,870 students enrolled in one or more of these specialized high school CTE programs. Although 84 percent of the 14,870 students enrolled in only one of these programs, 16 percent enrolled in two or three programs. For example, 88 students (0.6%) enrolled in courses through the Career Institutes, the NAF Academies, and the P-TECHs (Table 11).

Table 11: 2022-23 Students Enrolled in One or More CTE High School Programs

Enrolled in	<i>N</i>	%
One Program	12,474	83.9
Two Programs	2,308	15.5
Three Programs	88	0.6
Overall	14,870	100.0

Source: End-of-year demographic file, 05/12/23. Dallas ISD course file, 08/31/23. CTE course file, 12/15/23.

Note: CTE high school programs analyzed: Career Institutes, NAF Academies, and Early College High Schools.

A comparison of the specialized CTE high school (Career Institutes, NAF Academies, and P-TECHs) programs found that more male students than female students enrolled in these programs, except for the P-TECH program, where female students were in the majority (55%, Table 12). Among all high school CTE programs, Career Institutes had the highest percentage of at-risk students (80%), followed by NAF academies (76%), and the P-TECH Program (63%). Moreover, CTE students enrolled in Career Institutes had the highest percentage of economically disadvantaged students (89%) and the highest percentage of English learners (57%), while having the lowest percentage of TAG-eligible students (11%). CTE students in the P-TECH program had the lowest percentage of special education students (4%).

Table 12: 2022-23 Student Characteristics by CTE Program

Variable	Career Institutes (n=4,203)		NAF Academies (n=8,483)		P-TECH Program (n=4,668)	
	N	%	N	%	N	%
Grade Level						
Grade 9	1,883	44.8	2,892	34.1	1,280	27.4
Grade 10	1,222	29.1	2,420	28.5	1,382	29.6
Grade 11	637	15.2	1,667	19.7	1,114	23.9
Grade 12	461	11.0	1,504	17.7	892	19.1
Gender						
Female	1,761	41.9	4,058	47.8	2,567	55.0
Male	2,442	58.1	4,425	52.2	2,101	45.0
Race / Ethnicity						
Asian	39	0.9	131	1.5	72	1.5
African American	821	19.5	1,799	21.2	944	20.2
Hispanic	3,188	75.9	6,177	72.8	3,525	75.5
White	93	2.2	218	2.6	74	1.6
Other	62	1.5	158	1.9	53	1.1
Student Characteristics						
At Risk Status	3,371	80.2	6,428	75.8	2,950	63.2
Eco Dis Status	3,742	89.0	7,337	86.5	4,079	87.4
English Learner	2,403	57.2	4,500	53.0	2,224	47.6
Special Education	450	10.7	805	9.5	177	3.8
TAG Eligible	467	11.1	1,150	13.6	1,127	24.1

Source: End-of-year demographic file, 05/12/23. Dallas ISD course file, 08/31/23. CTE course file, 12/15/23.

Note: Eco Dis=economically disadvantaged. Column percentages may not sum to 100 due to rounding.

NAF Academies

Overall, 8,483 students enrolled in 39 NAF Academies in 2022-23, an increase of 1,002 students from 44 NAF Academies in 2021-22 (Table 13). Analyses indicated that 10 percent of NAF participants ($n=861$) enrolled in more than one academy (max academies enrolled=4). This was an increase of two percentage points over 2021-22 (8%). Academies with the highest enrollment numbers for 2022-23 were Academy of Finance ($n=3,274$), followed by Academy of Information Technologies ($n=2,728$), and Academy of Engineering ($n=1,314$). The top three schools with NAF enrollment in 2020-21 were Skyline ($n=1,189$), Sunset ($n=825$), and Conrad ($n=750$).

Table 13: 2022-23 Dallas ISD NAF Student Enrollment

NAF Academy	AOE	AOF	AOHS	AOHT	AOIT	Overall	
	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>N*</i>	$\bar{x}$
Skyline	138	627	173	103	222	1,189	1.1
Sunset	0	701	147	0	0	825	1.0
Conrad	84	224	153	147	417	750	1.4
North Dallas	250	257	0	0	362	689	1.3
W-H	0	293	0	197	267	608	1.2
Spruce	125	273	0	0	212	596	1.0
Adams, B	249	0	227	113	0	571	1.0
Jefferson	82	307	0	198	0	505	1.2
Adamson	0	334	175	0	0	489	1.0
South Oak Cliff	0	0	0	0	447	447	1.0
Hillcrest	203	0	211	0	0	395	1.0
White	183	0	0	0	260	389	1.1
Samuell	0	0	0	0	261	261	1.0
Carter	0	258	0	0	0	258	1.0
Kimball	0	0	0	231	0	231	1.0
Madison	0	0	0	0	172	172	1.0
Pinkston	0	0	0	0	108	108	1.0
Overall	1,314	3,274	1,086	989	2,728	8,483	1.1

Source: End-of-year demographic file, 05/12/23. Dallas ISD course file, 08/31/23. CTE course file, 12/15/23.

Note: Student could enroll in more than one career cluster. * = Unique student enrollment. - = no academy was offered. AOE=Academy of Engineering, AOF=Academy of Finance, AOHS=Academy of Health Sciences, AOHT=Academy of Hospitality and Tourism, AOIT=Academy of Information Technologies. IDEA=Innovation, Design and Entrepreneurship Academy, W-H = Wilmer-Hutchins.

Career Institutes Enrollment

In 2022-23, 4,203 students enrolled in Career Institutes, an increase of one percent ($n=51$) from 2021-22 (Table 14). Enrollment ranged from 39 students (Lincoln in CI East) to 513 students (Adams in CI East). Overall, Career Institute students enrolled in 5,765 courses (including elective and language courses) and passed 5,346 (93%). In CI's fourth year, courses were now open to all high school grade levels: grade nine ($n=1,883$), grade ten ($n=1,222$), grade 11 ($n=637$), and grade 12 ($n=461$).

Table 14: 2022-23 Career Institute Enrollment by Feeder High Schools

Career Institute East <i>N</i> =1,405		Career Institute North <i>N</i> =1,460		Career Institute South <i>N</i> =1,338	
Home Campus	<i>N</i>	Home Campus	<i>N</i>	Home Campus	<i>N</i>
Adams	513	Conrad	143	Adamson	118
Lincoln	39	Hillcrest	234	Carter	119
Madison	79	Jefferson	259	Kimball	112
Samuel	321	North Dallas	412	Molina	137
Spruce	328	White	412	Pinkston	113
Woodrow Wilson	125			Roosevelt	64
				South Oak Cliff	306
				Sunset	213
				Wilmer-Hutchins HS	156

Source: End-of-year demographic file, 05/12/23. Dallas ISD course file, 08/31/23. CTE course file, 12/15/23.

Demographic and student characteristics for each Career Institute are displayed in Table 15.

Table 15: 2022-23 Student Characteristics by Career Institute

Variable	Career Institute East (n= 1,405)		Career Institute North (n=1,460)		Career Institute South (n=1,338)	
	N	%	N	%	N	%
Grade Level						
Grade 9	586	41.7	624	42.7	673	50.3
Grade 10	408	29.0	438	30.0	376	28.1
Grade 11	279	19.9	219	15.0	139	10.4
Grade 12	132	9.4	179	12.3	150	11.2
Gender						
Female	671	47.8	563	38.6	527	39.4
Male	734	52.2	897	61.4	811	60.6
Race / Ethnicity						
Asian	10	0.7	24	1.6	5	0.4
African American	199	14.2	219	15.0	403	30.1
Hispanic	1,138	81.0	1,142	78.2	908	67.9
White	34	2.4	51	3.5	8	0.6
Other	24	1.7	24	1.6	14	1.0
Student Characteristics						
At Risk Status	1,163	82.8	1,154	79.0	1,054	78.8
Eco Dis Status	1,261	89.8	1,265	86.6	1,216	90.9
English Learner	870	61.9	908	62.2	625	46.7
Special Education	140	10.0	165	11.3	145	10.8
TAG Eligible	150	10.7	163	11.2	154	11.5

Source: End-of-year demographic file, 05/12/23. Dallas ISD course file, 08/31/23. CTE course file, 12/15/23.

Note: Eco Dis=economically disadvantaged. Column percentages may not sum to 100 due to rounding.

EQ3: What were the stakeholders' perceptions of CTE?

This section provides perceptual data from the annual CTE departmental survey, and student and employer perceptions of the CTE internship programs.

Key findings from this section:



In 2022-23, 98 percent of respondents agreed that the CTE program provided students with basic training to obtain a job.



Respondents agreed that CTE program allowed students to discover career opportunities they otherwise may not have considered (96%).



Respondents agreed that CTE program motivated students to complete high school who otherwise were at risk of dropping out (77%).



Ninety-six percent of CTE teachers indicated that CTE learning activities were aligned with current practices in business, industry, and/or technology.

Teachers

An online survey invitation was emailed to 486 CTE teachers to collect their perceptions on the CTE programs. Overall, 365 teachers started the survey, and 324 teachers completed the survey for a response rate of 67 percent. Eighty-two percent of responding teachers ($n=266$) indicated that they taught one career cluster while the remaining 18 percent of respondents ($n=58$) indicated that they taught between two and five career clusters, with an average of 1.3 career clusters. Teachers further reported that they taught on average 99 students in 2022-23, a decrease of two percent from 2021-22 ($n=101$). Of the 273 teachers who taught subjects that offered industry-based certifications, 228 teachers (84%) indicated that they offered students the opportunity to earn industry-based certificates.

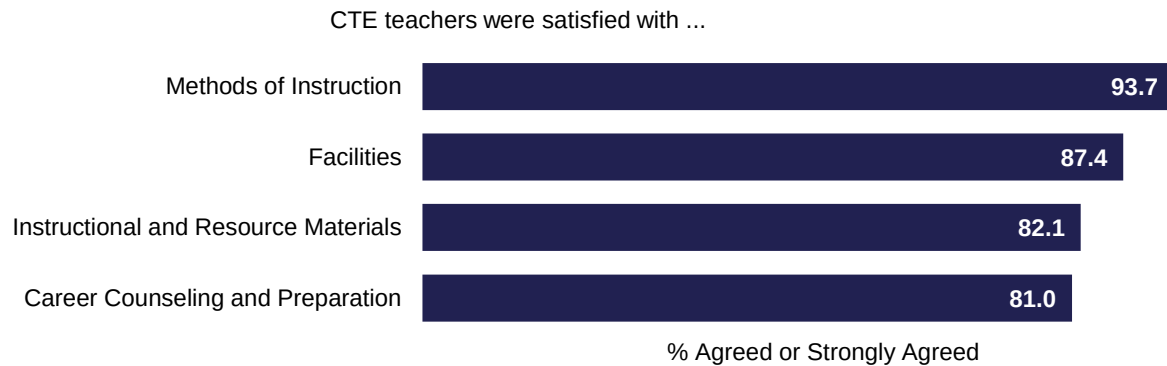
Overall, 96 percent of CTE teachers indicated that learning activities were aligned with current practices in business, industry, and/or technology, a decrease of three percentage points from 2021-22 (99%). In addition, the respondents indicated that:

- The CTE program provides students with basic training to obtain a job (98%), an increase of 11 percentage points of the 2021-22 survey (87%).
- The CTE program allows students to discover career opportunities they otherwise may not have considered (96%).
- The CTE program motivates students to pursue post-secondary education (78%).
- The CTE program motivates students to complete high school who otherwise are at risk of dropping out (77%).

CTE teachers also provided feedback on the instructional and resource materials, methods of instructions, career counseling and preparation, and facilities (Figure 5).²⁶

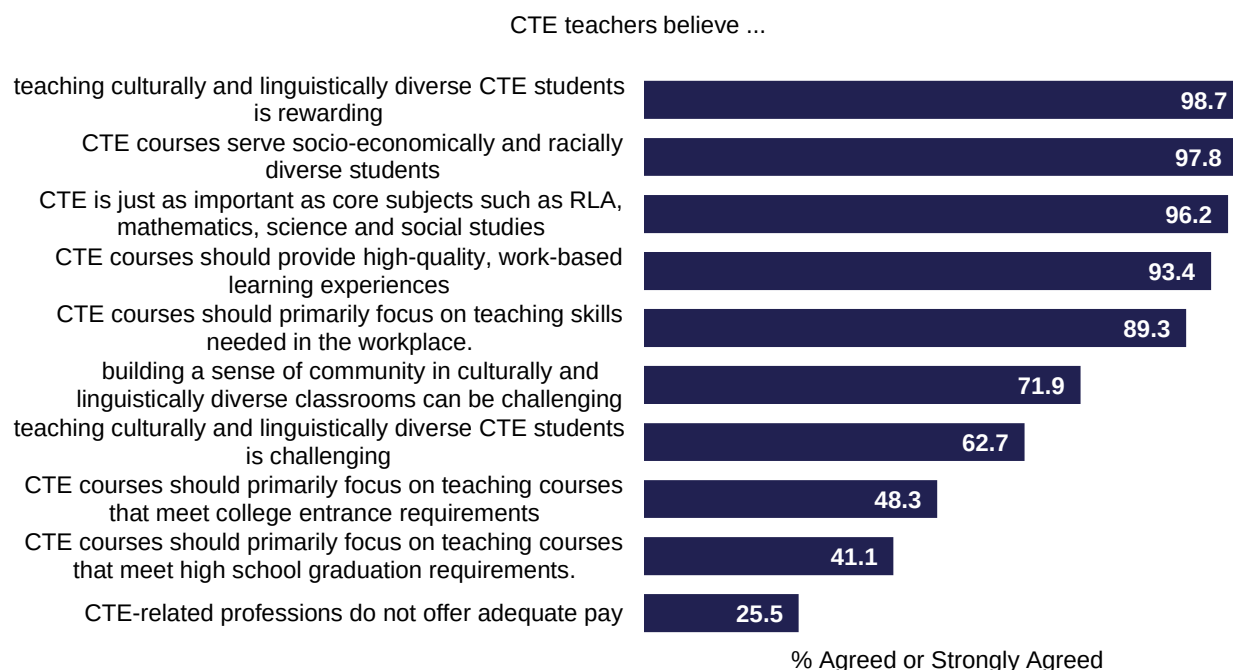
- Ninety-four percent of respondents agreed or strongly agreed that instruction methods were appropriate to provide quality CTE education to Dallas ISD students.
- Eighty-seven percent of respondents agreed or strongly agreed that facilities were well maintained and provided up-to-date technologies to ensure effective student learning.
- Eighty-two percent of respondents indicated that the CTE program provided students with the appropriate instructional and resource materials needed to succeed.
- Eighty-one percent of respondents agreed or strongly agreed that the CTE program provided students training in in-demand careers and provided opportunities to establish strong relationships with businesses and postsecondary schools.
- While teacher's satisfaction slightly decreased from 2021-22 to 2022-23 for instructional methods and career counseling and preparation (0.6 and 3.7 percentage points, respectively), satisfaction increased for instructional and resource materials and facilities (0.1 and 1.9 percentage points, respectively).

²⁶ Individual questions by category are presented in Appendix H.

Figure 5: 2022-23 CTE Teacher Perceptions of the CTE Program

Source: 2022-23 CTE Program Survey, 5/01/23.

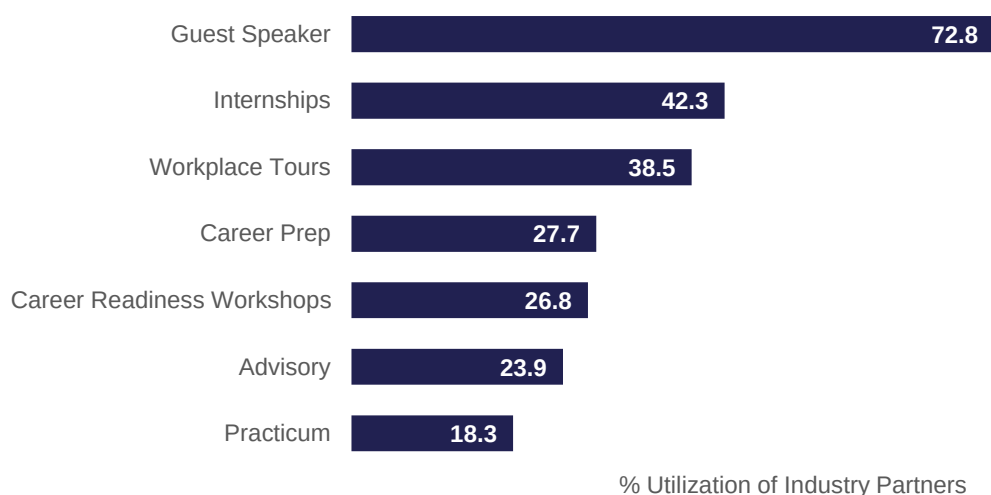
CTE teachers also shared their perceptions regarding the CTE program focus and implementation (Figure 6). Respondents reported that CTE courses should provide high-quality, work-based, learning experiences (93%) and focus on teaching skills that are needed in the workforce (89%). Ninety-eight percent of teachers agreed or strongly agreed that the CTE program successfully serves a diverse student population. Although 63 percent of respondents indicated that serving such a diverse student population can at times be challenging, almost all respondents (99%) found their work to be rewarding. Ninety-six percent of respondents agreed or strongly agreed that CTE courses should receive the same level of importance given to core courses. Overall, 74 percent of respondents agreed that CTE related professions offer competitive pay. While overall results were similar to the 2021-22 CTE survey, a lower percentage of respondents agreed that CTE courses should provide high-quality, work-based, learning experiences (93% versus 99%) while a higher percentage of respondents agreed that courses should meet college entrance requirements (48% vs 42%). A higher percentage of respondents noticed that teaching and building a community in culturally and linguistically diverse classrooms is challenging (7 and 14 percentage points differences, respectively).

Figure 6: 2022-23 CTE Teacher Perceptions of CTE Program Focus and Implementation

Source: 2022-23 CTE Program Survey, 05/01/23.

To articulate challenges they faced in 2022-23, teachers had the choice to select more than one response option. While 46 percent of all respondents ($N=324$) indicated that they received the needed support from the CTE Department, 21 percent indicated that additional professional development opportunities would be helpful, and 19 percent wished for better guidance from the CTE department. Respondents also indicated that they needed additional technical support (16%) and more technical resources (29%). Compared to 2021-22, the percentage of respondents requesting additional support remained stable for technical support while it increased for the remaining categories: guidance (3 percentage points), professional development opportunities (6 percentage points), and technical resources (10 percentage points).

Sixty-nine percent of teachers noted that they worked with a Dallas ISD CTE industry partner coordinator and 66 percent noted that they utilized industry partners to support instructions ($\bar{x}=2.5$ times). Teachers could select more than one response option to articulate how they utilized industry partners. Of those teachers that utilized industry partners ($n=213$), most noted that they used them as guest speakers (73%), followed by internships (42%) and workplace tours (39%, Figure 7).

Figure 7: 2022-23 CTE Teacher Utilization of Industry Partners

Source: 2022-23 CTE Program Survey, 05/01/23.

Notes: Two-hundred and thirteen respondents indicated that they utilized industry partners at least one time during the 2022-23 school year. Respondents could select more than one response option.

CTE Internship Opportunities

Key findings from this section:



Overall, almost all interns (99%) indicated that they were satisfied or very satisfied with the Internship program and 96 percent of respondents agreed or strongly agreed that they were well prepared for the internship.



Ninety-six percent of employers noted that they were either satisfied or very satisfied with the internship programs and 88 percent noted that they would participate in an internship program again. Employers also agreed or strongly agreed that the P-TECH interns met their expectations (95%).

Student Survey

Online survey invitations were emailed to 380 CTE internship participants including general CTE, NAF, CI, and P-TECH students. A total of 136 participants (36%) provided feedback on their overall internship experience and on topics such as internship administration, communication, preparation, and quality of supervisor.²⁷

- Overall, 99 percent of interns were satisfied or very satisfied with the CTE Internship program while 96 percent of respondents noted that their internship experience met their expectations.
- Almost all (99.5%) respondents noted that their supervisor behaved in a professional manner and answered questions during the internship.

²⁷ Individual questions by category are presented in Appendix I, Table 1 and Table 2. Response rates by group were A) General CTE ($n=12$, 57%), B) NAF ($n=57$, 54%), and C) P-TECH ($n=67$, 26%).

- Most respondents (99%) noted that they were satisfied or very satisfied with the administration of the internship and agreed or strongly agreed that they were well prepared for the internship (90%).
- Overall, students were satisfied or very satisfied with the communication received from the department and teachers (99%).
- Ninety-three percent of respondents (93%) indicated that they were satisfied or very satisfied with the use of the Oppti platform²⁸.

Employer Surveys

Employers ($n=50$) were asked to provide feedback about their experience with the internship program and to evaluate the Dallas ISD interns based a several categories. Twenty-eight employers (56%)²⁹ provided feedback on the internship program while 20 (40%) provided feedback on their interns.³⁰

- All employers were either satisfied or very satisfied with the internship selection process, the communication they received, and the internship fair. However, only 27 out of the 28 employers (96%) rated their overall internship experience as very satisfying with one employer being dissatisfied (4%). Overall, 88 percent of employers noted that they would participate again in the internship program with the remaining employers being undecided.
- Ninety-six percent of employer respondents were satisfied or very satisfied with the level of students' preparedness for the internship program.
- Ninety-four percent of employer respondents were satisfied or very satisfied with the use of software programs to administer the internship.

Evaluating their interns, 19 employers (95%) agreed or strongly agreed that the interns met their expectations and two respondents noted that they hired their intern following the internship. Employers also rated interns on relevant workplace related traits. Ninety-five percent of respondents highlighted the professional appearance of their intern(s) and their ability to communicate. Additionally, 90 percent of respondents noted that interns demonstrated professional behaviors and made contributions to the work team. Interns' drive to take initiative was ranked the lowest (84%). Individual employer questions are presented in Appendix I Table 5 and Table 6.

EQ4: How did CTE students perform in 2022-23?

This section includes summaries of academic outcomes for CTE students in 2022-23. This evaluation includes: (a) course completions; (b) academic performances on *STAAR EOCs*; (c) number of credentials earned; (d) number of graduates who earned an associate degree; and (e) college enrollment rates of CTE graduates.

²⁸ Oppti is a career exploration and management platform that allows districts to facilitate work-based learning opportunities such as internships.

²⁹ Individual questions by category are presented in Appendix I, Table 3 and Table 4. Response rates by group were A) General CTE ($n=8$, 57%), B) NAF ($n=510$, 50%), and C) P-TECH ($n=10$, 63%).

³⁰ Individual questions by category are presented in Appendix I, Table 5 and Table 6. Response rates by group were A) General CTE ($n=7$, 50%), B) NAF ($n=8$, 40%), and C) P-TECH ($n=5$, 31%).

Academic Performance

Key findings from this section:



In 2022-23, 42,327 CTE students enrolled in 73,410 CTE courses with an 89 percent passing rate (65,529 courses). Likewise, 6,612 Dallas ISD students participated in 16,046 CTE dual credit courses of which they passed 14,359 (90%).



CTE Completers had the highest overall passing rate for all CTE courses (96%) and CTE dual credit course (94%) followed by CTE Concentrators (95% and 92%), and CTE Participants (88% and 91%). CTE Explorers had the lowest overall passing rate for all CTE courses (83%) and CTE dual credit courses (82%).



Overall, 80 percent of CTE high school students ($N=30,390$) took one or more *STAAR EOC* exams in 2022-23. Most students met the Approaches+ benchmark for U.S. History (93%), followed by Biology (85%) and Algebra I (66%).

Completion Rates

In 2022-23, CTE middle and high school students passed 89 percent of all CTE courses, remaining stable compared to 2021-22 (89%, Table 16). Passing rates by career clusters ranged from 84 percent (Human Services) to 93 percent (Architecture Construction, Education Training and Health Science). CTE Completers had the highest overall passing rate of 96 percent followed by CTE Concentrators (95%), and CTE Participants (88%). CTE Explorers had the lowest overall passing rate of 83 percent. Additional CTE course completion data by school level and status can be found in Appendix G.

Table 16: 2022-23 CTE Course Enrollment and Completion Rates by Career Cluster and CTE Status

Career Cluster	CTE Participant		CTE Explorer		CTE Concentrator		CTE Completer		Total CTE Enrollment	
	N	%	N	%	N	%	N	%	N	%
Health Science	494	91.1	1,380	87.6	1,865	95.1	1,286	96.7	5,025	93.1
Science Technology Engineering Mathematics	4,225	93.3	3,155	89.6	2,539	95.3	531	97.0	10,450	92.9
Architecture Construction	377	87.3	1,058	86.9	940	98.1	377	99.5	2,752	92.5
Law Public Service	401	89.0	644	83.5	1,393	95.4	525	97.9	2,963	92.4
Hospitality Tourism	321	89.7	594	83.5	604	97.5	328	99.7	1,847	92.0
Manufacturing	123	84.6	223	88.3	155	99.4	23	100.0	524	91.2
Transportation Distribution Logistics	155	87.7	442	85.1	300	96.3	197	97.0	1,094	90.7
Arts A V Technology Communications	2,700	88.4	1,527	82.9	1,532	92.8	1,022	93.9	6,781	89.0
Education Training	26	88.5	78	75.6	169	92.3	47	97.9	320	88.8
Information Technology	1,207	89.4	1,550	79.4	1,756	93.1	786	94.4	5,299	88.4
Business Marketing Finance	3,856	85.5	5,396	77.3	6,833	95.4	1,566	95.7	17,651	87.7
General Elective CTE Courses*	10,521	86.2	2,008	88.7	999	91.3	788	94.7	14,316	87.3
Agriculture Food Natural Resources	157	89.2	262	70.2	294	94.9	136	100.0	849	87.0
Human Services	760	84.5	1,138	72.6	1,180	89.4	461	96.1	3,539	83.8
Overall	25,323	87.8	19,455	82.7	20,559	94.6	8,073	96.1	73,410	89.3

Source: End-of-year demographic file, 05/12/23. Dallas ISD course file, 08/31/23. CTE course file, 12/15/23. CTE Student Identifier, 12/15/23.

Note: N=Enrollment Number %=Completion Percentage. Student could enroll in more than one career cluster. * General Elective CTE Courses is not a CTE cluster but serves as a holder for CTE courses that can serve more than one cluster. A V = Audio Video.

In 2022-23, 6,612 Dallas ISD students participated in 16,046 CTE dual credit courses of which they passed 14,359 (90%). Thirty-one percent of CTE students who took dual credit courses were CTE Explorers ($n=2,047$) and CTE Concentrators ($n=2,032$), followed by CTE Participants ($n=1,807$, 27%), and CTE Completers ($n=726$, 11%).

The number of dual credit courses taken by campus varied from one dual credit course (New Tech) to 1,245 dual credit courses (Conrad, Table 17). Dual credit completion rates ranged from 33 percent (Wilson) to 100 percent (Washington). CTE Completers passed dual credit course at a higher rate than all other CTE student groups (94%).

Table 17: 2022-23 CTE Dual Credit Course Completion Rates by Campus and CTE Status

Career Cluster	CTE Participant		CTE Explorer		CTE Concentrator		CTE Completer		Total CTE Enrollment	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>N</i>	%
Adams, B	20	80.0	102	64.7	381	96.1	15	100.0	518	89.4
Adamson	143	95.1	131	80.2	322	95.0	44	100.0	640	92.3
Carter	123	84.6	90	58.9	129	76.7	64	85.9	406	76.6
Conrad	149	98.0	282	94.7	319	85.3	495	95.4	1,245	92.9
Garza	349	97.7	193	98.4	64	100.0	-	-	606	98.2
Gilliam	206	94.2	199	96.5	25	96.0	-	-	430	95.3
Hillcrest	277	92.1	159	95.6	46	97.8	*	*	484	93.8
Jefferson	92	97.8	157	84.7	448	89.7	487	89.9	1,184	89.8
Kimball	141	80.9	188	87.2	16	93.8	-	-	345	84.9
Lassiter	109	97.2	144	97.2	45	97.8	-	-	298	97.3
Lincoln	50	60.0	100	50.0	42	97.6	33	100.0	225	68.4
Madison	48	79.2	31	41.9	70	84.3	113	81.4	262	77.1
Molina	65	92.3	458	94.3	207	95.7	13	76.9	743	94.2
New Tech	-	-	-	-	*	*	-	-	*	*
North Dallas	144	93.1	279	90.7	142	89.4	75	100.0	640	92.0
North Lake EC	159	95.6	65	92.3	12	100.0	-	-	236	94.9
Pinkston	163	89.0	220	63.6	148	82.4	180	93.3	711	80.9
Roosevelt	67	44.8	152	23.7	38	63.2	25	84.0	282	39.4
Samuell	294	94.9	156	94.9	55	94.5	*	*	506	94.9
Seagoville HS	29	100.0	46	58.7	635	89.6	220	98.2	930	90.4
Skyline	171	97.1	245	79.6	296	96.6	178	96.6	890	92.0
South Oak Cliff	80	87.5	107	66.4	182	73.1	126	77.8	495	75.2
Spruce	21	85.7	88	87.5	270	97.0	244	95.9	623	94.9
Sunset	173	87.9	267	79.4	76	97.4	61	100.0	577	86.5
Townview Business	-	-	31	80.6	379	97.6	67	95.5	477	96.2
Townview Education	*	*	*	*	*	*	-	-	7	85.7
Townview Health	61	95.1	79	79.7	241	88.8	488	95.7	869	92.3
Townview Law	-	-	*	*	112	100.0	14	100.0	128	98.4
Washington	10	100.0	-	-	-	-	-	-	10	100.0
White	89	86.5	65	95.4	378	99.5	19	100.0	551	96.9
Wilmer-Hutchins HS	156	83.3	200	79.5	255	94.9	107	97.2	718	88.4
Wilson	*	*	*	*	*	*	-	-	9	33.3
Overall	3,396	90.7	4,240	82.3	5,339	92.0	3,071	93.6	16,046	89.5

Source: End-of-year demographic file, 05/12/23. Dallas ISD course file, 08/31/23. CTE course file, 12/15/23. CTE Student Identifier, 12/15/23.

Note: SEM = Science and Engineering. IDEA = Innovation, Design and Entrepreneurship Academy. *N* = total number of students enrolled in a dual credit course. % = percentage of students who completed the dual credit courses. - = no students were enrolled. *Data was masked as five or fewer students belonged to these categories.

STAAR EOCs

Overall, 24,407 out of the 30,390 CTE high school students took one or more STAAR EOC exams in 2022-23 (80%, Table 17). The subject test with the highest participation count was English I ($n=12,288$), followed by English II ($n=11,160$). The majority of CTE students met the Approaches+ benchmark for U.S. History (93%), followed by Biology (85%) and Algebra I (66%). CTE Explorers participated in the greatest number of STAAR EOC exams, while CTE Completers met the Approaches+ benchmark most often (77%) across all subject tests, followed by CTE Concentrators (74%).

Table 17: 2022-23 Percentage of CTE Students Meeting STAAR EOC Approaches Grade Level or Above

STAAR EOC Subject	CTE Participant		CTE Explorer		CTE Concentrator		CTE Completer		Overall CTE	
	N	%	N	%	N	%	N	%	N	%
Approaches Grade Level or Above										
Algebra I	3,589	73.6	2,887	61.2	1,118	55.1	65	50.8	7,659	66.1
Biology	4,315	88.8	3,586	82.2	1,878	81.3	133	73.7	9,912	84.8
English I	5,329	67.1	4,661	57.5	2,173	56.2	125	50.4	12,288	61.4
English II	1,691	71.1	4,175	60.9	4,761	68.9	533	55.5	11,160	65.6
U.S. History	745	94.0	2,274	91.4	3,707	93.6	933	95.2	7,659	93.2
Overall	15,669	76.3	17,583	68.4	13,637	74.1	1,789	77.0	48,678	72.8
Meets Grade Level or Above										
Algebra I	3,514	30.3	2,879	19.0	1,118	12.2	65	1.5	7,576	23.0
Biology	4,241	51.8	3,575	41.1	1,871	38.5	132	23.5	9,819	45.0
English I	5,258	47.4	4,654	35.2	2,173	26.6	125	15.2	12,210	38.7
English II	1,625	53.0	4,149	37.6	4,742	44.9	532	28.4	11,048	42.5
U.S. History	696	62.9	2,244	52.2	3,687	60.9	922	72.6	7,549	59.9
Overall	15,334	46.0	17,501	36.5	13,591	42.7	1,776	49.0	48,202	41.7

Source: End-of-year demographic file, 05/12/23. Dallas ISD course file, 08/31/23. CTE course file, 12/15/23. CTE Student Identifier, 12/15/23. STAAR EOC file, 08/12/23.

Note: STAAR EOC = State of Texas Assessments of Academic Readiness End-of-Course. Number of tested students may differ in Meets Grade Level or Above from Approaches Grade Level or Above due to missing data.

Credentials

Key findings from this section:



Overall, 8,764 Dallas ISD CTE students earned 13,094 credentials in 2022-23, including 12,626 industry-based certifications and 468 educational certificates. This is an increase of 3,261 credentials from 2021-22 (9,833 credentials).



Certifications identified by TEA for the A to F accountability system accounted for 68 percent ($n=8,614$) of all industry-based certifications earned.

Overall, 8,764 Dallas ISD CTE students earned 13,094 credentials in 2022-23 (Table 18), including 12,626 industry-based certifications and 468 educational certificates. This is an increase of 3,261 credentials from 2021-22 (9,833 credentials). Compared to 2021-22, the number of industry-based certifications increased by 3,231, while the number of educational certificates increased by 30. The campus with the highest number of CTE students who completed one or more credentials was Skyline ($n=1,195$),

followed by Adamson ($n=599$). Overall, students at Skyline earned the highest number of credentials (1,769), followed by Molina ($n=883$) and Adamson ($n=881$).

Certifications identified by TEA for the A to F accountability system accounted for 68 percent ($n=8,614$) of all industry-based certifications earned, which was an increase of 60 percent from 2021-22 ($n=5,401$, 58%). CTE Completers earned the greatest number of educational certificates ($n=287$) and completed industry-based certifications at the highest percentage of all CTE groups (75% for all certifications and A-F certifications). However, CTE Concentrators earned the greatest number of industry-based certifications ($n=5,251$, 42%) and A-F certifications ($n=3,937$, 46%).

Table 18: 2022-23 CTE Credentials Earned by Campus

Campus	Industry-Based Certification						Educational Certificates	All Credentials
	All Certifications			Certifications in A-F				
	N	n	%	N	n	%		
Skyline	3,029	1,752	57.8	1,955	992	50.7	17	1,769
Molina	1,001	867	86.6	707	612	86.6	16	883
Adamson	1,310	839	64.0	901	581	64.5	42	881
Conrad	989	808	81.7	847	706	83.4	47	855
Sunset	1,017	815	80.1	757	591	78.1	3	818
Adams, B	1,510	675	44.7	1,156	464	40.1	11	686
White	1,176	660	56.1	823	382	46.4	-	660
South Oak Cliff	677	602	88.9	418	394	94.3	8	610
Spruce	1,097	513	46.8	740	412	55.7	50	563
North Dallas	813	502	61.7	518	389	75.1	41	543
Seagoville HS	526	420	79.8	322	280	87.0	98	518
Jefferson	593	411	69.3	305	222	72.8	70	481
Samuell	806	468	58.1	689	398	57.8	0	468
Wilmer-Hutchins HS	953	422	44.3	407	152	37.3	12	434
Kimball	552	429	77.7	351	256	72.9	3	432
Hillcrest	642	414	64.5	497	298	60.0	-	414
Carter	471	302	64.1	280	137	48.9	6	308
Pinkston	325	262	80.6	242	193	79.8	27	289
Townview Business	412	255	61.9	402	245	60.9	-	255
Madison	291	226	77.7	217	161	74.2	12	238
Townview Health	227	189	83.3	127	89	70.1	-	189
New Tech	129	129	100.0	129	129	100.0	-	129
IDEA	118	118	100.0	118	118	100.0	-	118
Wilson	349	117	33.5	212	90	42.5	-	117
Lincoln	201	116	57.7	155	89	57.4	-	116
Roosevelt	154	101	65.6	64	56	87.5	5	106
Rangel	173	91	52.6	71	55	77.5	-	91
CityLab	82	50	61.0	82	50	61.0	-	50
Townview Education	40	40	100.0	40	40	100.0	-	40
Townview Sci & Eng	135	23	17.0	135	23	17.0	-	23
Washington	16	7	43.8	16	7	43.8	-	7
Townview Law	20	2	10.0	20	2	10.0	-	2
Townview TAG	1	1	100.0	1	1	100.0	-	1
Overall								
CTE Participant	2,187	1,287	58.8	1,079	596	55.2		1,287
CTE Explorer	5,909	3,330	56.4	3,713	1,985	53.5	14	3,344
CTE Concentrator	8,083	5,251	65.0	6,121	3,937	64.3	167	5,418
CTE Completer	3,656	2,758	75.4	2,791	2,096	75.1	287	3,045
Overall	19,835	12,626	63.7	13,704	8,614	62.9	468	13,094

Source: End-of-year demographic file, 05/12/23. Dallas ISD course file, 08/31/23. CTE course file, 12/15/23. CTE Student Identifier, 12/15/23. Educational Certificate data, 10/12/23. Industry-based certification data, 11/01/23.

Note: *N*=Courses attempted, *n*=courses passed. SEM= Science and Engineering. IDEA = Innovation, Design and Entrepreneurship Academy. - = no credentials earned. In addition, 36 middle school students at 17 schools earned a total of 68 certifications.

Overall, 2,110 Career Institute students earned 3,477 out of the 12,626 industry-based certifications (28%, Table 19). A total of 819 CI-South students earned 1,505 industry-based certifications, followed by 849 CI-North students who earned 1,247 certifications, and 442 CI-East students who earned 725 certifications.

Table 19: 2022-23 CTE Industry-Based Certification Earned by Career Institute

Schools	CTE Participant		CTE Explorer		CTE Concentrator		CTE Completer		Total N
	n	%	n	%	n	%	n	%	
Career Institute East									
Adams, B	6	1.6	100	27.3	227	62.0	33	9.0	366
Spruce	20	17.1	34	29.1	52	44.4	11	9.4	117
Wilson	0	0.0	25	25.5	73	74.5	-	-	98
Samuell	4	4.3	43	45.7	41	43.6	6	6.4	94
Madison	2	7.1	9	32.1	13	46.4	4	14.3	28
Lincoln	0	0.0	1	4.5	21	95.5	-	-	22
Career Institute I North									
White	45	12.7	139	39.2	159	44.8	12	3.4	355
Jefferson	54	17.9	171	56.8	76	25.2		0.0	301
North Dallas	29	10.6	115	42.0	117	42.7	13	4.7	274
Hillcrest	4	1.8	112	51.6	90	41.5	11	5.1	217
Conrad	14	14.0	41	41.0	44	44.0	1	1.0	100
Career Institute South									
Sunset	44	15.2	100	34.6	97	33.6	48	16.6	289
South Oak Cliff	42	19.1	73	33.2	63	28.6	42	19.1	220
Molina	98	52.1	53	28.2	33	17.6	4	2.1	188
Adamson	0	0.0	102	55.1	76	41.1	7	3.8	185
Kimball	30	17.0	30	17.0	103	58.5	13	7.4	176
Wilmer-Hutchins HS	10	6.0	101	60.8	45	27.1	10	6.0	166
Carter	40	32.0	56	44.8	26	20.8	3	2.4	125
Pinkston	57	49.6	18	15.7	39	33.9	1	0.9	115
Roosevelt	5	12.2	21	51.2	12	29.3	3	7.3	41
Overall									
CI East	32	4.4	212	29.2	427	58.9	54	7.4	725
Ci North	146	11.7	578	46.4	486	39.0	37	3.0	1,247
CI South	326	21.7	554	36.8	494	32.8	131	8.7	1,505
Total	504	14.5	1,344	38.7	1,407	40.5	222	6.4	3,477

Source: End-of-year demographic file, 05/12/23. Dallas ISD course file, 08/31/23. CTE course file, 12/15/23. CTE Student Identifier, 12/15/23. Industry-based certification data, 11/01/23.

Note: CI = Career Institute. - = no students were identified.

Associate Degrees

Key findings from this section:



In 2022-23, 783 CTE graduates earned an associate degree, an increase of eight percent over 2021-22 ($n=723$).

Overall, 783 CTE graduates earned an associate degree in 2022-23 (Table 20). All 783 students were ECHS students, including 503 PTECH students and 280 traditional ECHS students. Students at Conrad earned the greatest number of associate degrees ($n=88$) across all CTE groups, followed by Molina ($n=67$) and Garza ($n=66$). Overall, students who participated in a program of study (CTE Concentrators and

CTE Completers) accounted for 460 associate degrees (59%). This is a decrease of two percent compared to the 469 CTE Concentrators and CTE Completers who earned an associate degree in 2021-22.

Table 20: 2022-23 Number of Associate Degrees Awarded to CTE Graduates

Campus	CTE Participant	CTE Explorer	CTE Concentrator	CTE Completer	Overall	
	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>N</i>	%
Conrad	2	46	16	24	88	11.2
Molina	1	12	52	2	67	8.6
Garza	5	45	16	0	66	8.4
North Lake EC	11	42	8	0	61	7.8
Gilliam	0	42	4	0	46	5.9
Sunset	0	18	11	13	42	5.4
Seagoville HS	0	0	16	24	40	5.1
White	0	9	28	3	40	5.1
Skyline	0	11	29	0	40	5.1
Hillcrest	0	22	16	0	38	4.9
Adams, B	0	0	32	4	36	4.6
Adamson	0	0	28	8	36	4.6
Samuell	2	25	4	0	31	4.0
Jefferson	0	0	6	24	30	3.8
Wilmer-Hutchins HS	0	1	17	5	23	2.9
Spruce	0	0	9	13	22	2.8
Pinkston	0	8	0	8	16	2.0
North Dallas	0	9	2	3	14	1.8
Lassiter	0	7	7	0	14	1.8
Carter	0	0	9	4	13	1.7
Lincoln	0	0	1	6	7	0.9
Kimball	0	2	4	0	6	0.8
Roosevelt	0	3	0	1	4	0.5
Madison	0	0	0	2	2	0.3
South Oak Cliff	0	0	0	1	1	0.1
Overall	21	302	315	145	783	100.0

Source: End-of-year demographic file, 05/12/23. Dallas ISD course file, 08/31/23. CTE course file, 12/15/23. CTE Student Identifier, 12/15/23. Graduation file, 10/26/23. Associate Degree files, 10/11/23.

In 2022-23, more Associate of Science degrees were awarded to CTE students ($n=367$, 47%) than Associate of Arts ($n=223$, 29%), Associate of Applied Science ($n=153$, 20%), or Associates of Arts in Teaching ($n=40$, 5%) degrees (Table 21). The Associate of Applied Science was the preferred degree among CTE Completers (74%), while CTE Concentrators and CTE Participants preferred the Associate of Arts (40% and 62%, respectively). Seventy-five percent of CTE Exploders who earned an associate degree also earned an Associate of Science.

Table 21: 2022-23 Associate Degrees Awarded to CTE Graduates by Degree Plan

Degree Plan	CTE Participant	CTE Explorer	CTE Concentrator	CTE Completer	Overall	
	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>N</i>	%
Associate of Science	8	227	114	18	367	46.9
Associate of Arts	13	68	125	17	223	28.5
Associate of Applied Science	0	0	46	107	153	19.5
Associates of Arts in Teaching	0	7	30	3	40	5.1
All Degrees	21	302	315	145	783	100.0

Source: End-of-year demographic file, 05/12/23. Dallas ISD course file, 08/31/23. CTE course file, 12/15/23. CTE Student Identifier, 12/15/23. Graduation file, 10/26/23. Associate Degree files, 10/11/23.

Note: Percentages do not sum to 100 due to rounding. - = no associate degrees earned.

College Enrollment

Key findings from this section:



According to the 2022-23 NSC data file, 48 percent of 2021-22 CTE graduates and 42 percent of non-CTE graduates enrolled in college within one year of graduation.

Overall, 8,375 grade 12 students graduated from a Dallas ISD high school in 2021-22 (including the summer semester). Of these, 6,400 students (76%) were CTE students, and 1,975 students (24%) were non-CTE students (Table 22). According to the 2022-23 NSC data file, 47 percent of CTE graduates and non-CTE graduates enrolled in college within one year of graduation. A higher percentage of CTE students (18%) enrolled in a two-year college than non-CTE students (13%). Enrollment in a four-year university was similar for CTE and non-CTE students (30% vs 29%, respectively). Due to a change in methodology, year-over-year enrollment comparison was not feasible.³¹

³¹ Two changes impacted the methodology: (a) End-of-year demographic data files were crosschecked against graduation information and those that graduated were changed from tea=997 to the tea they graduated from, (b) NSC file was crosschecked to verify that college enrollment included a start date. If a start date was not given, enrollment was not counted.

Table 22: 2022-23 College Enrollment Rates for 2021-22 Dallas ISD Graduates

Enrollment Status	CTE Participant Graduates			CTE Explorer Graduates			CTE Concentrator Graduates			CTE Completer Graduates			Total CTE Graduates			Non-CTE Graduates		
	Enrolled			Enrolled			Enrolled			Enrolled			Enrolled			Enrolled		
	Grad <i>N</i>	<i>n</i>	%	Grad <i>N</i>	<i>n</i>	%	Grad <i>N</i>	<i>n</i>	%	Grad <i>N</i>	<i>n</i>	%	Grad <i>N</i>	<i>n</i>	%	Grad <i>N</i>	<i>n</i>	%
Two-Year*		53	15.4		194	15.5		469	18.7		461	20.1		1,177	18.4		259	13.1
Four-Year*		118	34.3		376	30.0		695	27.7		707	30.9		1,896	29.6		563	28.5
Overall	344	171	49.7	1,255	570	45.4	2,510	1,164	46.4	2,291	1,168	51.0	6,400	3,073	48.0	1,975	822	41.6

Source: Dallas ISD graduation file, 08/23/22. Demographic file, 06/07/21 (2021-22). NSC file, 09/28/23.

Note: Grad= Graduated. *Enrolled in two year or less or four-year colleges.

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APPENDICES



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Appendix A

Appendix A: Acronym and Abbreviation List

Approaches+	Approaches Grade Level or Above
CCMR	College, Career, and Military Readiness
CI	Career Institutes
CTE	Career and Technical Education
ECHS	Early College High School
EOC	<i>End-of-Course</i>
FTE	Full-Time Equivalent
HB22	Texas House Bill 22
HB5	Texas House Bill 5
HS	High school
IDEA	Innovation, Design and Entrepreneurship Academy
ISD	Independent School District
Meets+	Meets Grade Level or Above
NAF	National Academy Foundations
NSC	National Student Clearinghouse
PBMAS	Performance-Based Monitoring Analysis System
PD	Professional development
PLTW	Project Lead The Way
P-TECH	Pathways to Technology
SPED	Special education
STAAR	<i>State of Texas Assessments of Academic Readiness</i>
STEM	Science, Technology, Engineering, and Mathematics
TAG	Talented and Gifted
TAPR	Texas Academic Performance Report
TEA	Texas Education Agency

Appendix B

Appendix B: 2022-23 Data Sources and Methodology

EQ	Data Component	Source	Data File Date(s)	Key Metric	Aggregation
	Program Components and People	CTE and CI program staff, website, data and research warehouses	06/23	None	None
	Budget	Budget Services Department, Special Revenue Funds Management	06/21/23 12/19/23	None	None
	District Goals for Career Readiness	District literature, board meetings	06/23	None	None
1	Student Enrollment	CTE department course catalog, Student Information System, Eduthings, TEA auto-coding	05/12/23 08/31/23 12/15/23 12/15/23	Enrollment by CTE programs. Rate of students in the following categories: Sex, ethnicity, at risk, economically disadvantaged, special education, and TAG eligible status.	Program, campus, grade, status, career cluster, district
1	Student Attendance	CTE department, Student Information System	06/28/23	Rate of daily attendance.	Program, campus, grade, status, career cluster, district
2	Teacher Perceptions	Dallas ISD E&A Department	05/01/23	Rate of positive responses on survey items. Exploratory analyses of qualitative responses.	None
2	Stakeholders' Perceptions of the CTE Internship	Dallas ISD E&A Department	09/18/23 09/25/23 10/30/23	Rate of positive responses on survey items. Exploratory analyses of qualitative responses.	None
3	Course Completions	Course Enrollment	08/31/23	Rate of students achieving performance standard.	Program, campus, grade, status, career cluster, district
3	STAAR EOC Algebra I, English I, English II	TEA	08/12/23	Rate of students achieving each performance standard (Approaches+, Meets+).	Program, subject, district grade, campus

table continues

Appendix B: 2022-23 Data Sources and Methodology (continued)

EQ	Data Component	Source	Data File Date(s)	Key Metric	Aggregation
3	Credentials	Dallas College, CTE Department, Eduthings	10/12/23 11/01/23	Number of educational certificates (Level I & II) earned. Rate of students earning industry-based certifications.	Program, campus, grade, status, career cluster, district
3	Associate Degrees	Dallas College, Student Information System	10/11/23	Rate of CTE graduates earning an Associate Degree.	Program, campus, status, district
3	College Enrollment	NSC	09/28/23	Rate of 2022 CTE graduates enrolled in either 2- or 4-year program.	Program, campus, district
3	TEA Accountability Measures	TEA	01/12/24	None	None

Note: CTE= Career Technical Education. CI = Career Institutes. TEA - Texas Education Agency. STAAR - State of Texas Assessments of Academic Readiness. PTECH - Pathway to Technology High Schools. NSC – National Student Clearing House.

Appendix C

Appendix C: 2022-23 Career Pathways and Academies by Campus

	Business and Industry							Public Services				STEM	
Career and Technical Education (CTE) Pathways by Career Cluster and Endorsement	Agriculture, Food & Natural Resources	Architecture & Construction	Arts, A/V Technology & Communications	Business, Marketing & Finance	Hospitality & Tourism	Information Technology	Manufacturing	Transportation, Distribution & Logistics	Education	Health Science	Human Services	Law & Public Service	Science, Technology, Engineering & Mathematics
Bryan Adams		*	*	*	*	*						*	*
Adamson		*		*			*	*			*		*
Carter		*		*		*	*	*				*	
City Lab	*	*										*	
Conrad		*		*	*	*	*	*		*			*
Hillcrest		*		*			*	*					*
IDEA				*		*							
Jefferson		*		*	*		*	*				*	*
Kimball		*		*	*		*	*				*	*
Lincoln		*	*	*	*								*
Madison		*		*		*							*
Molina		*	*				*	*				*	*
North Dallas		*		*	*	*	*	*					*
Obama													
Pinkston		*				*	*	*				*	*
Rangel													
Roosevelt		*			*		*	*		*			*
Samuell		*		*		*							*
Seagoville	*		*										
Skyline	*	*	*	*	*	*		*	*		*	*	*
Smith New Tech			*										
South Oak Cliff		*		*		*	*	*					*
Spruce		*		*		*		*					*
Sunset		*		*			*	*				*	*
Townview Business				*		*							
Townview Education									*		*		
Townview Health										*			
Townview Law												*	
Townview SEM													
Townview TAG													*
Washington PVA													
White				*			*	*		*	*		*
Wilmer-Hutchins		*	*	*	*	*		*					
Wilson		*		*									*
Total CTE Pathways	3	21	7	20	9	13	13	16	2	4	4	10	20

Source: CTE Department program document, Fall 2022.

Note: PVA= Performing and Visual Arts, IDEA = Innovation, Design and Entrepreneurship Academy. SEM= Science and Engineering. TAG = Talented and Gifted. * Met by traditional CT, Career Institute, or NAF courses.

Appendix D

Appendix D: 2022-23 CTE Indicator Auto-Coding

Texas CTE Indicator Auto-Coding Codes and Definitions 	
 Not CTE	Code 4 (Not CTE): A student who never enrolled or who did not complete any high-school CTE course as defined by 19 TAC Chapter 126 (C), 127 (B) or 130.
 CTE Participants	Code 5 (CTE Participant): A student completing one or more courses for less than two credits defined by 19 TAC Chapter 126 (C), 127 (B) or 130 (the student does not have to pass or receive credit).
 CTE Explorers	Code E (CTE Explorer): A student completing two or more high school CTE courses for a total of two or more credits defined by 19 TAC Chapter 126 (C), 127 (B) or 130 and not a participant, concentrator or completer (the student does not have to pass or receive credit).
 CTE Explorers*	*Code E (CTE Explorer): A student completing enough program of study courses in a regional program of study to be coded a 6 or 7, but completes the school year in a district and geographic region where the regional program is not approved. The code 6 or 7 is changed to a code E.
 CTE Concentrators	Code 6 (CTE Concentrator): A student completing and passing two or more 19 TAC Chapter 126 (C), 127 (B) or 130 CTE courses for a total of at least two credits within the same program of study and not a completer.
 CTE Completers	Code 7 (CTE Completer): A student completing and passing three or more 19 TAC Chapter 126 (C), 127 (B) or 130 CTE courses for a total of four or more credits within a program of study, including one level three or level four course from within the same program of study.
*Regional programs of study are approved in ESC geographic regions where there is specialized regional labor market demand for specific occupations. Students concentrating (code 6) and/or completing (code 7) a program of study outside of approved geographic ESC regions are assigned a code E (Explorer).	

Source: CTE Program Staff, Fall 2021.

Appendix E

Appendix E: 2022-23 Career Institute Pathways

		9th Grade	10th Grade	11th Grade	12th Grade
 Aviation	COURSES	Introduction to Aerospace and Aviation	Introduction to Unmanned Aerial Vehicles (UAV) Flight and Aviation Ground School	Advanced Aircraft Systems	Practicum in Transportation Systems
	CERTIFICATIONS	OSHA 10	FAA Remote Unmanned Aerial Vehicle Pilot Certification	Southwest Airlines Professional Communications	Student Pilot Certificate
 Construction	COURSES	Principles of Construction	Construction Technology I	Construction Technology II	Practicum in Construction Technology
	CERTIFICATIONS	OSHA 10	Autodesk Certified Professional (ACP) in Autodesk Revit Building Systems	NCCER Core Curriculum	NCCER Carpentry, Level 1
 Interior Design	COURSES	Principles of Architecture	Interior Design I	Interior Design II	Practicum in Architecture
	CERTIFICATIONS	OSHA 10	AAFCS Interior Design Fundamentals	Autodesk Certified User in AutoCAD	Autodesk Certified Professional (ACP) in Autodesk Revit Building Systems
 Plumbing	COURSES	Principles of Construction	Plumbing Technology I	Plumbing Technology II	Practicum in Construction Technology
	CERTIFICATIONS	OSHA 10	Autodesk Certified Professional (ACP) in Autodesk Revit Building Systems	NCCER Core Curriculum	NCCER Plumbing, Level 1
 Electrical	COURSES	Principles of Construction	Electrical Technology I	Electrical Technology II	Practicum in Construction Technology
	CERTIFICATIONS	OSHA 10	Autodesk Certified Professional (ACP) in Autodesk Revit Building Systems	NCCER Core Curriculum	NCCER Electrical, Level 1
 HVAC	COURSES	Principles of Construction	HVAC and Refrigeration Technology I	HVAC and Refrigeration Technology II	Practicum in Construction Technology
	CERTIFICATIONS	OSHA 10	Autodesk Certified Professional (ACP) in Autodesk Revit Building Systems	NCCER Core Curriculum	ACCA (Air Conditioning Contractors of America) Refrigerant Handling (EPA 608)
 Mechatronics	COURSES	Principles of Manufacturing	Manufacturing Engineering Technology I	Manufacturing Engineering Technology II	Practicum in Manufacturing
	CERTIFICATIONS	OSHA 10 Auto CAD	MSSC (Manufacturing Skills Standards Council) Certified Production Technician (CPT)	NIMS (National Institute for Metalworking Skills) Industrial Technology Maintenance and (TIM)- Maintenance Operations	NIMS (National Institute for Metalworking Skills) Industrial Technology Maintenance and (TIM) Process Control Systems
 Cybersecurity	COURSES	Foundations of Cybersecurity	AP Computer Science Principles	Computer Science I or AP Computer Science A	Cybersecurity Capstone
	CERTIFICATIONS	CompTIA IT Fundamentals	Microsoft Technology Associate (MTA) Security Fundamentals	CompTIA Security+	Oracle Certified Associate (OCA), Java SE 8 Programmer
Other courses offered on Campus: Spanish I, Spanish II, Principles of Information Technology, Computer Science I (LOTE Credit) AP Computer Science Principles, General Employability Skills.					

Source: Career Institutes program flyer provided, Fall 2019.

Note: Flyer does not include Architecture, Dental Assistance, EMT, Game Design, Software Development, Patient Care Technician and Pharmacy Technician pathways.

Appendix F

Appendix F, Table 1: 2022-23 CTE Student Enrollment by Career Cluster

Career Cluster	Middle School CTE (n=11,937)			High School CTE (n=30,390)				Overall CTE (N=42,327)	
	CTE Participant	CTE Explorer	CTE Concentrator	CTE Participant	CTE Explorer	CTE Concentrator	CTE Completer	Total Enrollment	Enrollment by Cluster
	n	n	n	n	n	n	n	N	%
Business Marketing Finance	1,235	156	-	2,354	4,172	4,246	841	13,004	30.7
General Elective CTE Courses*	7,694	124	-	1,747	1,440	832	622	12,459	29.4
Science Technology Engineering Mathematics	2,535	335	-	965	2,018	1,884	364	8,101	19.1
Arts A V Technology Communications	1,917	196	-	735	1,252	1,358	527	5,985	14.1
Information Technology	313	70	-	874	1,306	1,383	435	4,381	10.4
Health Science	10	5	-	479	1,281	1,461	604	3,840	9.1
Human Services	218	10	-	511	981	907	312	2,939	6.9
Architecture Construction	6	14	-	370	1,008	829	259	2,486	5.9
Law Public Service	26	1	-	342	529	767	364	2,029	4.8
Hospitality Tourism	2	0	-	319	581	533	283	1,718	4.1
Transportation Distribution Logistics	18	10	-	137	409	274	159	1,007	2.4
Agriculture Food Natural Resources	0	0	-	156	218	223	108	705	1.7
Manufacturing	0	0	-	123	217	143	21	504	1.2
Education Training	3	8	-	23	70	169	36	309	0.7

Source: End-of-year demographic file, 05/12/23. Dallas ISD course file, 08/31/23. CTE course file, 12/15/23. CTE Student Identifier, 12/15/23.

Note: Column percent does not sum to 100 percent as student could enroll in more than one career cluster. * = General Elective CTE Courses is not a CTE cluster but serves as a holder for CTE courses that can serve more than one cluster. - = no students were enrolled. A V = Audio Video.

Appendix F, Table 2: 2022-23 CTE Course Enrollment by Career Cluster

Career Cluster	Middle School CTE (n=11,937)			High School CTE (n=30,390)				Overall CTE (N=42,327)	
	CTE Participant	CTE Explorer	CTE Concentrator	CTE Participant	CTE Explorer	CTE Concentrator	CTE Completer	Total Enrollment	Enrollment by Cluster
	n	n	n	n	n	n	n	N	%
Business Marketing Finance	1241	163	-	2615	5233	6833	1566	17,651	24.0
General Elective CTE Courses*	7696	124	-	2825	1884	999	788	14,316	19.5
Science Technology Engineering Mathematics	3133	632	-	1092	2523	2539	531	10,450	14.2
Arts A V Technology Communications	1952	213	-	748	1314	1532	1022	6,781	9.2
Information Technology	313	70	-	894	1480	1756	786	5,299	7.2
Health Science	10	5	-	484	1375	1865	1286	5,025	6.8
Human Services	218	10	-	542	1128	1180	461	3,539	4.8
Law Public Service	26	1	-	375	643	1393	525	2,963	4.0
Architecture Construction	6	14	-	371	1044	940	377	2,752	3.7
Hospitality Tourism	2	0	-	319	594	604	328	1,847	2.5
Transportation Distribution Logistics	18	10	-	137	432	300	197	1,094	1.5
Agriculture Food Natural Resources	0	0	-	157	262	294	136	849	1.2
Manufacturing	0	0	-	123	223	155	23	524	0.7
Education Training	3	8	-	23	70	169	47	320	0.4
Overall	14,618	1,250	-	10,705	18,205	20,559	8,073	73,410	100.0

Source: End-of-year demographic file, 05/12/23. Dallas ISD course file, 08/31/23. CTE course file, 12/15/23. CTE Student Identifier, 12/15/23.

Note: Column percent does not sum to 100 percent as student could enroll in more than one career cluster. - = no students were enrolled. * = General Elective CTE Courses is not a CTE cluster but serves as a holder for CTE courses that can serve more than one cluster. A V = Audio Video.

Appendix G

Appendix G, Table 1: 2022-23 CTE Course Enrollment and Completion Rates for Middle School Students

Career Cluster	CTE Participant		CTE Explorer		CTE Concentrator		CTE Completer		Total CTE Enrollment	
	N	%	N	%	N	%	N	%	N	%
Education Training	3	100.0	8	100.0	-	-	-	-	11	100.0
Law Public Service	26	100.0	1	100.0	-	-	-	-	27	100.0
Human Services	218	95.4	10	80.0	-	-	-	-	228	94.7
Information Technology	313	93.0	70	98.6	-	-	-	-	383	94.0
Science Technology Engineering Mathematics	3,133	93.4	632	96.5	-	-	-	-	3,765	93.9
Business Marketing Finance	1,241	90.4	163	92.0	-	-	-	-	1,404	90.6
Arts A V Technology Communications	1,952	89.7	213	91.5	-	-	-	-	2,165	89.8
General Elective CTE Courses*	7,696	84.5	124	93.5	-	-	-	-	7,820	84.7
Architecture Construction	6	50.0	14	92.9	-	-	-	-	20	80.0
Transportation Distribution Logistics	18	72.2	10	90.0	-	-	-	-	28	78.6
Health Science	10	40.0	5	80.0	-	-	-	-	15	53.3
Hospitality Tourism	2	50.0	-	-	-	-	-	-	2	50.0
Agriculture Food Natural Resources	-	-	-	-	-	-	-	-	-	-
Manufacturing	-	-	-	-	-	-	-	-	-	-
Overall	14,618	87.9	1,250	94.6	-	-	-	-	15,868	88.4

Source: End-of-year demographic file, 05/12/23. Dallas ISD course file, 08/31/23. CTE course file, 12/15/23. CTE Student Identifier, 12/15/23.

Note: N=Enrollment Number %=Completion Percentage. Student could enroll in more than one career cluster. * General Elective CTE Courses is not a CTE cluster but serves as a holder for CTE courses that can serve more than one cluster. - = no students were enrolled. A V = Audio Video.

Appendix G, Table 2: 2022-23 CTE Course Enrollment and Completion Rates for High School Students

Career Cluster	CTE Participant		CTE Explorer		CTE Concentrator		CTE Completer		Total CTE Enrollment	
	N	%	N	%	N	%	N	%	N	%
Health Science	484	92.1	1,375	87.6	1,865	95.1	1,286	96.7	5,010	93.2
Architecture Construction	371	87.9	1,044	86.8	940	98.1	377	99.5	2,732	92.6
Law Public Service	375	88.3	643	83.5	1,393	95.4	525	97.9	2,936	92.3
Science Technology Engineering Mathematics	1,092	93.3	2,523	87.9	2,539	95.3	531	97.0	6,685	92.3
Hospitality Tourism	319	90.0	594	83.5	604	97.5	328	99.7	1,845	92.1
Manufacturing	123	84.6	223	88.3	155	99.4	23	100.0	524	91.2
Transportation Distribution Logistics	137	89.8	432	85.0	300	96.3	197	97.0	1,066	91.0
General Elective CTE Courses*	2,825	90.6	1,884	88.4	999	91.3	788	94.7	6,496	90.6
Arts A V Technology Communications	748	85.0	1,314	81.5	1,532	92.8	1,022	93.9	4,616	88.6
Education Training	23	87.0	70	72.9	169	92.3	47	97.9	309	88.3
Information Technology	894	88.1	1,480	78.5	1,756	93.1	786	94.4	4,916	88.0
Business Marketing Finance	2,615	83.1	5,233	76.9	6,833	95.4	1,566	95.7	16,247	87.5
Agriculture Food Natural Resources	157	89.2	262	70.2	294	94.9	136	100.0	849	87.0
Human Services	542	80.1	1,128	72.5	1,180	89.4	461	96.1	3,311	83.1
Overall	10,705	87.7	18,205	81.8	20,559	94.6	8,073	96.1	57,542	89.5

Source: End-of-year demographic file, 05/12/23. Dallas ISD course file, 08/31/23. CTE course file, 12/15/23. CTE Student Identifier, 12/15/23.

Note: N=Enrollment Number %=Completion Percentage. Student could enroll in more than one career cluster. * General Elective CTE Courses is not a CTE cluster but serves as a holder for CTE courses that can serve more than one cluster. A V = Audio Video.

Appendix H

Appendix G: 2022-23 CTE Teacher Perceptions of the CTE Program

Survey Question	Grand Total <i>N</i>	Strongly Disagree <i>n</i>	Disagree <i>n</i>	Agree <i>n</i>	Strongly Agree <i>n</i>	I Don't Know/Not Applicable <i>n</i>	Agree or Strongly Agree %
Methods of Instruction							
Instructional strategies provide the students with skills that will enable them to keep pace with the changing workplace and to have upward mobility in employment opportunities	324	4	9	199	108	4	95.9
An Individual Education Plan (IEP) is available in a timely manner for all Special Education students	324	9	32	173	98	12	86.9
Instructor analyzes, evaluates and makes changes in the curriculum as needed, to address the needs of students	324	2	4	147	163	8	98.1
Workplace Cleanliness							
The facility is arranged, organized, and maintained to ensure a safe and appropriate environment for effective student learning	324	13	32	169	101	9	85.7
The instructional areas are maintained in a clean and orderly fashion	324	6	20	178	114	6	91.8
Tools and/or equipment provided in the instructional areas are comparable to those used in business and/or industry	324	24	41	165	76	18	78.8
All safety protective equipment, including fire extinguishers, are accessible and the proper usage of such equipment is included in the instructional program	324	3	9	108	67	137	93.6
Safety training is provided to students and tests are administered annually and kept on file	324	2	13	98	52	159	90.9
Career Counseling and Preparation							
I am aware of the House Bill 5 endorsements selected by the students enrolled in my classes	324	12	61	146	76	29	75.3
Your Career and Technical Education program provides training for career opportunities available in the community and/or in the region	324	7	23	167	100	27	89.9
Strong partnerships exist with business and postsecondary schools for your Career and Technical Education program	324	6	59	157	72	30	77.9

table continues

Appendix H (continued)

Survey Question	Grand Total <i>N</i>	Strongly Disagree <i>n</i>	Disagree <i>n</i>	Agree <i>n</i>	Strongly Agree <i>n</i>	I Don't Know/ Not Applicable <i>n</i>	Agree or Strongly Agree %
Instructional and Resource Materials							
As a Career and Technical Education teacher, I am involved in the selection and acquisition of current instructional materials and supplies necessary to conduct a quality program of instruction	324	16	33	164	92	19	83.9
Students have adequate use and benefit of an up-to-date reference/technical library, equipment, and career resources	324	18	48	175	72	11	78.9
A variety of instructional materials are available and used to accommodate student differences, such as varying reading levels and learning styles	324	10	42	186	78	8	83.5

Source: 2022-23 CTE Program Survey, 05/01/23

Note: Presented survey questions reflect a sample of questions asked to CTE teachers.

Appendix I

Appendix I, Table 1: 2022-23 Overall Student Perceptions of the CTE Internship Programs

Survey Question	Grand Total <i>N</i>	Very Dissatisfied <i>n</i>	Dissatisfied <i>n</i>	Satisfied <i>n</i>	Very Satisfied <i>n</i>	Satisfied or Very Satisfied %
Communication						
Please rate the level of communication that you received from Dallas ISD, related to the Internship Program.	136	0	2	54	80	98.5
Please rate the level of communication that you received from your teacher(s) related to the Dallas ISD Internship Program.	136	0	1	33	102	99.3
Internship Administration						
Please rate your experience with the Dallas ISD online internship application process.	136	0	1	51	84	99.3
Please rate your experience with the internship selection process.	136	1	2	50	83	97.8
Please rate your experience with the internship placement process.	136	0	2	47	87	98.5
Technology- Oppti Platform						
Please rate your satisfaction with the internship' preparation training modules in Oppti.	136	1	7	62	66	94.1
Please rate your satisfaction with the Oppti platform.	136	3	8	68	57	91.9
Overall						
Please rate your satisfaction with the Dallas ISD CTE Internship Program.	136	0	1	37	98	99.3

table continues

Appendix I, Table 1: (continued)

Survey Question	Grand Total <i>N</i>	Strongly Disagree <i>n</i>	Disagree <i>n</i>	Agree <i>n</i>	Strongly Agree <i>n</i>	Agree or Strongly Agree %
Internship Preparation						
Prior to starting your internship, did you understand the purpose and expectations of the internship?	136	3	11	59	63	89.7
Did the pre internship training workshops prepare you for the start of your internship?	126	3	9	56	58	90.5
Internship Experiences						
During your internship, did you feel that you produced valuable work that further the company's goal?	136	0	5	47	84	96.3
Did the internship help build your awareness of the variety of careers offered at the company?	136	1	0	34	101	99.3
Supervisor Feedback						
Did your supervisor conduct himself/herself in a professional manner?	136	0	1	27	108	99.3
Did your supervisor answer your questions during the internship?	136	0	0	24	112	100.0
Did your supervisor seem to benefit from the overall experience?	136	0	1	39	96	99.3
Overall						
Did your internship experience meet your expectations?	136	1	4	39	92	96.3

Source: 2022-23 Internship Student Survey, 09/18/23.

Note: Presented survey questions reflect a sample of questions asked to CTE internship students.

Appendix I, Table 2: Student Perceptions of the CTE Internship Programs by Program

Survey Question	General CTE %	NAF %	P-TECH %	Overall %
Communication				
Please rate the level of communication that you received from Dallas ISD, related to the Internship Program.	100.0	96.5	100.0	98.5
Please rate the level of communication that you received from your teacher(s) related to the Dallas ISD Internship Program.	100.0	100.0	98.5	99.3
Internship Administration				
Please rate your experience with the Dallas ISD online internship application process.	100.0	100.0	98.5	99.3
Please rate your experience with the internship selection process.	100.0	94.7	100.0	97.8
Please rate your experience with the internship placement process.	100.0	98.2	98.5	98.5
Technology- Oppti Platform				
Please rate your satisfaction with the internship' preparation training modules in Oppti.	100.0	91.2	95.5	94.1
Please rate your satisfaction with the Oppti platform.	100.0	87.7	94.0	91.9
Overall				
Please rate your satisfaction with the Dallas ISD CTE Internship Program.	100.0	98.2	100.0	99.3

table continues

Appendix I, Table 2: (continued)

Survey Question	General CTE %	NAF %	P-TECH %	Overall %
Internship Preparation				
Prior to starting your internship, did you understand the purpose and expectations of the internship?	83.3	86.0	94.0	89.7
Did the pre internship training workshops prepare you for the start of your internship?	90.9	86.3	93.8	90.5
Internship Experiences				
During your internship, did you feel that you produced valuable work that further the company's goal?	100.0	96.5	95.5	96.3
Did the internship help build your awareness of the variety of careers offered at the company?	100.0	98.2	100.0	99.3
Supervisor Feedback				
Did your supervisor conduct himself/herself in a professional manner?	100.0	98.2	100.0	99.3
Did your supervisor answer your questions during the internship?	100.0	100.0	100.0	100.0
Did your supervisor seem to benefit from the overall experience?	100.0	98.2	100.0	99.3
Overall				
Did your internship experience meet your expectations?	100.0	98.2	94.0	96.3

Source: 2022-23 Internship Student Survey, 09/18/23.

Note: Answers display percentage of students who noted that they were satisfied or very satisfied / agreed or strongly agreed. Presented survey questions reflect a sample of questions asked to CTE internship students.

Appendix I, Table 3: 2022-23 Employer Perceptions of the CTE Internship Programs

Survey Question	Grand Total <i>N</i>	Very Dissatisfied <i>n</i>	Dissatisfied <i>n</i>	Satisfied <i>n</i>	Very Satisfied <i>n</i>	Satisfied or Very Satisfied %
Please rate your overall satisfaction with the Dallas ISD CTE Internship Program.	28	0	1	5	22	96.4
Please rate your satisfaction with the internship selection process.	28	0	0	12	16	100.0
Please rate the level of communication that you received from Dallas ISD CTE, related to the Internship Program.	27	0	0	11	16	100.0
Please rate your satisfaction with the level of students' preparation for the Internship Program.	26	0	1	9	16	96.2
Please rate your satisfaction with the Oppti platform.	12	0	1	6	5	91.7
Please rate your satisfaction with the Premier Virtual platform.	20	0	1	8	11	95.0
Please rate your satisfaction with the Internship Fair.	20	0	0	11	9	100.0

Source: 2022-23 CTE Internship Student Survey, 09/25/23

Note: Presented survey questions reflect a sample of questions asked to CTE internship employers.

Appendix I, Table 4: 2022-23 Employer Perceptions of the CTE Internship Programs by Program

Survey Question	General CTE %	NAF %	P-TECH %	Overall %
Please rate your overall satisfaction with the Dallas ISD CTE Internship Program.	100.0	90.0	100.0	96.4
Please rate your satisfaction with the internship selection process.	100.0	100.0	100.0	100.0
Please rate the level of communication that you received from Dallas ISD CTE, related to the Internship Program.	100.0	100.0	100.0	100.0
Please rate your satisfaction with the level of students' preparation for the Internship Program.	100.0	90.0	100.0	96.2
Please rate your satisfaction with the Oppti platform.	87.5	100.0	100.0	91.7
Please rate your satisfaction with the Premier Virtual platform.	87.5	100.0	100.0	95.0
Please rate your satisfaction with the Internship Fair.	100.0	100.0	100.0	100.0

Source: 2022-23 CTE Internship Student Survey, 09/25/23

Note: Answers display the percentage of employers who noted that they were satisfied or very satisfied. Presented survey questions reflect a sample of questions asked to CTE internship employers.

Appendix I, Table 5: 2022-23 Employer Perceptions of Interns

Survey Question	Grand Total <i>N</i>	Strongly Disagree <i>n</i>	Disagree <i>n</i>	Agree <i>n</i>	Strongly Agree <i>n</i>	Agree or Strongly Agree %
Did the intern apply critical thinking to solve problems?	20	2	1	11	6	85.0
Did the intern manage time appropriately?	19	1	1	10	7	89.5
Was the intern able to discern priorities?	20	2	1	11	6	85.0
Was the intern able to communicate effectively in the workplace?	19	1	0	12	6	94.7
Did the intern demonstrate a professional appearance during the internship?	19	1	0	10	8	94.7
Did the intern demonstrate professional behaviors?	20	2	0	8	10	90.0
Did the intern demonstrate attention to detail?	19	1	1	12	5	89.5
Did the intern take initiative(s)?	19	1	2	11	5	84.2
Did the intern contribute to the team?	20	2	0	9	9	90.0
At the end of the internships, did the intern meet your expectations?	20	1	0	8	11	95.0

Source: 2022-23 Internship Student Survey,10/30/23

Note: Presented survey questions reflect a sample of questions asked to CTE internship employers.

Appendix I, Table 6: 2022-23 Employer Perceptions of Interns by Program

Survey Question	General			Overall %
	CTE %	NAF %	P-TECH %	
Did the intern apply critical thinking to solve problems?	100.0	62.5	100.0	85.0
Did the intern manage time appropriately?	100.0	85.7	80.0	89.5
Was the intern able to discern priorities?	100.0	62.5	100.0	85.0
Was the intern able to communicate effectively in the workplace?	100.0	85.7	100.0	94.7
Did the intern demonstrate a professional appearance during the internship?	100.0	85.7	100.0	94.7
Did the intern demonstrate professional behaviors?	100.0	75.0	100.0	90.0
Did the intern demonstrate attention to detail?	100.0	71.4	100.0	89.5
Did the intern take initiative(s)?	100.0	71.4	80.0	84.2
Did the intern contribute to the team?	100.0	75.0	100.0	90.0
At the end of the internships, did the intern meet your expectations?	100.0	87.5	100.0	95.0

Source: 2022-23 Internship Student Survey,10/30/23

Note: Answers display the percentage of employers who noted that they agreed or strongly agreed. Presented survey questions reflect a sample of questions asked to CTE internship employers.