

2018-19 Evaluation of Career and Technical Education

Department of Evaluation and Assessment

*Michael Hinojosa, Ed.D.
Superintendent of Schools*



© 2019 Dallas Independent School District (Dallas ISD)

Mail a written request for permission to use or reproduce any part of this document to:

Dallas ISD

Department of Evaluation and Assessment

H. B. Bell School Support Service Center

2909 N. Buckner Blvd.

Box 10

Dallas, TX 75228

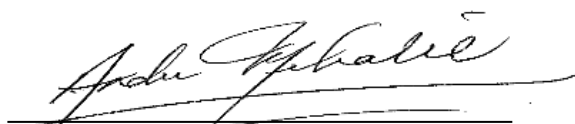
2018-19 Evaluation of Career and Technical Education

Approved Report of the Department of Evaluation and Assessment

EA19-195-2

September 2019

Nick Grimberg, M.S.



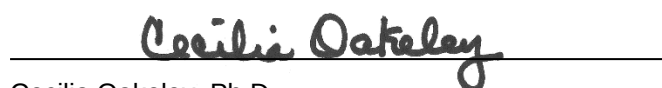
Anduamlak Meharie, Ph.D.

Manager – Program Evaluation



Joan Bush, Ph.D.

Executive Director – Program Evaluation



Cecilia Oakeley, Ph.D.

Assistant Superintendent – Evaluation and Assessment

*Michael Hinojosa, Ed.D.
Superintendent of Schools*



This page is intentionally left blank.

Table of Contents

ABSTRACT	1
PROGRAM DESCRIPTION	2
Background Information	2
Purpose and Goal.....	2
PURPOSE AND SCOPE OF THE EVALUATION	3
MAJOR EVALUATION QUESTIONS AND RESULTS	4
What was the CTE Department budget in 2018-19?	4
Methodology	4
Results	4
What were CTE student enrollment and course characteristics?	4
Methodology	4
Results	4
What were the completion rates of CTE dual credit courses?	10
Methodology	10
Results	10
How many industry-based certifications were earned in 2018-19?	12
Methodology	12
Results	12
How did Dallas ISD perform on CTE-related accountability indicators?	13
Methodology	13
Results	13
What were the performances of CTE students on <i>State of Texas Assessments of Academic</i> <i>Readiness End-of-Course (STAAR EOC)</i> exams?	17
Methodology	17
Results	18
What associate degrees were awarded to CTE Early College High School students in 2018?	22
Methodology	22
Results	22

What were college enrollment rates for Dallas ISD CTE Students?	23
Methodology	23
Results	24
SUMMARY AND RECOMMENDATIONS.....	25
REFERENCES.....	28
APPENDICES	29

List of Tables

Table	Page
1 Student Enrollment by Grade and CTE Status: 2018-19	5
2 CTE Student Characteristics: 2018-19	6
3 2012-13 through 2018-19 Career Pathways by Career Clusters	7
4 Dallas ISD NAF Student Enrollment (N = 10,464): 2018-19	8
5 Dallas ISD Career Institute Student Enrollment by Grade: 2018-19	8
6 Number of High School CTE Course Enrollments by Career Cluster and CTE Status	9
7 Nontraditional CTE Course Enrollment and Completion Rates for Males and Females by Career Cluster	10
8 Dual Credit Course Enrollment and Completion Rates by Campus and CTE Status	11
9 Industry-Based Certifications Passing Rates by Campus: 2018-19	12
10 2019 Dallas ISD, Houston ISD, Austin ISD, and San Antonio ISD CTE College, Career, and Military Readiness Indicators: 2018 TAPR Report	14
11 2018 and 2019 Dallas ISD College, Career, and Military Readiness Indicators	15
12 Dallas ISD CTE Program Area Performance: 2016, 2017, and 2018 PBMAS Report	16
13 Dallas ISD and State CTE Program Area Performance: 2018 PBMAS Report	17
14 Number and Percentage of CTE Students at <i>STAAR EOC</i> Approaches+ Standard 2016-17 through 2018-19	21
15 Number Tested and Percentage of Special Education, English Learner, and Economically Disadvantaged High School Students at Approaches+: 2018-19	22
16 Associate Degrees Awarded to CTE Early College High School Students: 2018-19	23
17 Associate Degrees Awarded to CTE Early College High School Students by Campus: 2018-19	23
18 2018 Dallas ISD Graduates College Enrollment	24
19 2016, 2017, and 2018 Dallas ISD CTE Graduates College Enrollment	24

List of Figures

Figure	Page
1 Percentages of High School Students at <i>STAAR EOC</i> Approaches+ Standard by CTE Status: 2018-19	19
2 Percentages of High School Students at <i>STAAR EOC</i> Meets+ Standard by CTE Status: 2018-19	20

List of Appendices

Appendix	Page
A Career Pathways and Academies by Campus: 2018-19	30
B Dallas-Fort Worth Employment Characteristics	31
C CTE Middle and High School Student Characteristics	32
D STAAR Results by Campus and Student Subgroup.....	33
E Top 25 Colleges of 2018 Dallas ISD Graduates by Enrollment and CTE Status	39
F Dallas ISD Earned Industry-Based Certifications: 2018-19	41

2018-19 Evaluation of Career and Technical Education

Project Evaluator: Nick Grimberg, M.S.

ABSTRACT

The Career and Technical Education (CTE) Department provided courses designed to prepare students in grades six through twelve for future careers or professional competencies. The Dallas Independent School District (ISD) offered courses and course sequences in 271 career pathways within 16 career clusters in 2018-19. The district criteria for identifying students in CTE programs was modified in 2018-19 which affected student enrollment in CTE programs. The total budget of the CTE Department was \$7,079,587, including a \$2,771,669 Perkins grant, and was 6.0 percent higher than 2017-18 (\$6,653,768).

- There were 15,989 CTE coherent sequence students and 20,371 CTE elective students in 2018-19. A total of 10,464 students participated in 47 National Academy Foundation (NAF) academies.
- A total of 4,980 Dallas ISD students participated in 10,475 CTE dual credit courses during the 2018-19 school year. Eighty-eight percent (88.3%, $n = 9,264$) of dual credit courses were completed.
- Overall, 3,529 Dallas ISD students took 5,038 industry-based certification exams in 2018-19 earning 4,652 certifications (92.3% pass rate) which was fewer than 2017-18 ($n = 5,117$, 78.7% pass rate).
- Fifty-seven percent (57%) of 2018 Dallas ISD graduates were college, career, or military ready which was lower than Austin ISD (77%), Houston ISD (63%) and San Antonio ISD (61%). While the Dallas ISD CTE department has made progress on Performance-Based Monitoring Analysis System (PBMAS) performance indicators over the past three years, the performances of special education CTE students on *State of Texas Assessments of Academic Readiness End-of-Course (STAAR EOC)* exams were significantly lower than the performances of other CTE students.
- CTE coherent sequence graduates enrolled at two-year colleges at a higher rate (28.4%) than CTE elective graduates (19.8%) or non-CTE graduates (16.9%). A higher percentage of non-CTE graduates enrolled at four-year colleges (36.9%) than CTE elective graduates (32.9%) or CTE coherent sequence graduates (23.3%).
- This evaluation recommends CTE program staff: communicate the importance of entering grade nine endorsement data with appropriate campus-based staff; examine the decrease in the number of industry-based certifications that were earned between the 2017-18 school year and the 2018-19 school year; work with the special education department to boost CTE special education academic achievement.

PROGRAM DESCRIPTION

Background Information

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 of study to prepare students for the needs of employers in a variety of occupations. 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: 1) business and industry; 2) public service; and 3) Science, Technology, Engineering, and Mathematics (STEM). HB 5 required the Dallas Independent School District (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. Dallas ISD students selected endorsements in grade nine. Endorsement requirements varied, but students were required to take additional CTE electives, when applicable, and/or complete a coherent sequence of four courses that related to the endorsement area (e.g., a STEM endorsement required students to take a coherent sequence of four credits in computer science).¹ Beginning in 2017-18, House Bill 22 (HB22), required TEA to evaluate the academic performance of school districts with a rating of A through F based on three domains: 1) student achievement, 2) school progress, and 3) closing the gaps. College, career, and military readiness (CCMR) indicators account for 40 percent of the weighted performance of high school campuses, K-12 campuses, and school districts in the student achievement domain.² CCMR indicators include dual credit course completion, associate degrees earned, CTE coherent sequence coursework completion, and earned industry based certifications among others.³

Purpose and Goal

The goals of the Dallas ISD CTE program were to prepare students for college and career success, to provide students with the skills to be competitive in a global economy, and to meet the unique needs of a diverse student population. Dallas ISD campuses offered courses and course sequences aligned with 16 career clusters or broad groupings of occupations and industries based on related disciplines. Career pathways⁴ distinguish groupings offered at each high school campus from the career clusters (see Appendix A for a detailed listing by campus). In addition, district students have the opportunity to earn industry-based certifications verifying that an individual has met the skill standards established by an industry or industry group. Dallas ISD students could also participate in CTE through other channels such

¹ <https://www.tasanet.org/cms/lib/TX01923126/Centricity/Domain/175/external/tea-ppt.pdf>

² The other sixty percent of the student achievement domain is weighted by *State of Texas Assessments of Academic Readiness End-of-Course (STAAR EOC)* performance (40%) and graduation rates (20%).

³ <https://tea.texas.gov/2018accountabilitymanual.aspx>

⁴ Career clusters are analogous to industries in the workforce. Career pathway is the term used to describe the school-level programs in the Dallas ISD.

as National Academy Foundation (NAF) academies. NAF academies are small career-themed learning communities housed within larger schools or at stand-alone public high schools. Dallas ISD operated 47 NAF academies at 20 high school campuses. NAF academies offered students opportunities to explore career interests and prepare for the future. Dallas ISD students who graduated from a NAF academy were expected to complete a paid internship to further connect the classroom experience to the working world. NAF academies offered NAFTrack Certification, indicating to post-secondary institutions and employers that the student was college- and career-ready. The NAFTrack Certified Hiring program was a commitment made by top American companies to consider these qualified students as eventual job applicants.

Five career institutes were opened in 2018. Career institutes partner with a Dallas County Community College District (DCCCD) to offer more comprehensive coursework for CTE students with a closer relationship with industry partners than other CTE programs. There were also 23 Dallas ISD early college high school (ECHS) programs in 2018-19. These programs included twenty Pathway to Technology Early College High School (P-TECH) campuses and three collegiate academies. Each P-TECH and collegiate academy was paired with a local post-secondary institution and several industry partners. Students enrolled in these programs were offered the opportunity to earn an associate degree or up to 60 hours of tuition-free college credit by the time of high school graduation. In addition to the potential to earn an associate degree, students can earn industry certificates in their selected career pathways and gain opportunities potentially leading to paid internships and job placement after graduation.⁵ Partnership with industry partners provides students with essential mentoring, internship opportunities, and other support to prepare them to enter the workforce career-ready.

PURPOSE AND SCOPE OF THE EVALUATION

The purpose of this evaluation was to examine the processes and performances of the CTE program. Specifically, this evaluation reviewed the following information:

1. The CTE Department budget.
2. Characteristics of the Dallas ISD CTE program, including (a) CTE student demographic characteristics; (b) enrollment rates for CTE elective students, coherent sequence students, NAF academy students, and career institute students; (c) enrollment in gender nontraditional courses as determined by the Texas Education Association (TEA).
3. The completion rates of CTE dual credit courses.
4. The number of industry-based certifications earned.
5. The performance of Dallas ISD on CTE related state accountability indicators.
6. CTE student academic achievement outcomes on *STAAR EOC* exams.
7. The number and types of associate degrees awarded to ECHS students in 2018.
8. College enrollment data for the Dallas ISD graduating class of 2018.

⁵ See Appendix B for employment characteristics of the Dallas-Fort Worth Metropolitan Area.

MAJOR EVALUATION QUESTIONS AND RESULTS

What was the CTE Department budget in 2018-19?

Methodology

Budget information for the 2018-19 and 2017-18 school years was provided by the CTE Department on May 6, 2019.

Results

A total of \$7,079,587 in funds supported the Dallas ISD CTE Department in 2018-19 including a \$2,771,669 Perkins grant and \$4,307,918 in state and local funds allocated based on CTE course enrollment. This represented a 6.0 percent increase in the CTE department total budget in 2017-18 (\$6,653,768).

What were CTE student enrollment and course characteristics?

Methodology

CTE program enrollment data for the 2018-19 school year were extracted by the Public Education Information Management System (PEIMS) department staff members of Dallas ISD on January 24, 2019. Data reflected student enrollment in coherent sequences of courses and non-coherent CTE elective courses at the time of the fall 2018 PEIMS snapshot date (October 26, 2018). The district criteria for identifying students in CTE programs was modified in 2018-19 to more closely align with state accountability data. Consequently, enrollment totals were lower than previous years and CTE student data were not equivalent. CTE enrollment data were merged with the district demographic file dated October 26, 2018. Descriptive statistics for CTE students enrolled in the district in the 2018-19 school year were presented by grade, race/ethnicity, gender, special education status, English learner status, talented and gifted status, economically disadvantaged status, and homeless status. The characteristics of students who participated in coherent sequences of CTE courses were compared to students who enrolled in one or more CTE courses but did not participate in coherent sequences (CTE elective), and students who did not enroll in any CTE courses (non-CTE).

Information about Dallas ISD career pathway offerings were provided by the CTE department on March 19, 2019. NAF student enrollment data were provided by the CTE department on February 28, 2019. Career institute enrollment data were provided by the CTE department on March 28, 2019. CTE male and female nontraditional course enrollment and completion data were extracted from district course files dated August 14, 2019.

Results

There were fewer CTE coherent sequence students in Dallas ISD in 2018-19 ($n = 15,989$; Table 1) than 2017-18 ($n = 20,755$; Grimberg et al., 2018) or 2016-17 ($n = 19,507$; Turner et al, 2017). As noted

previously, the criteria for identifying students in CTE programs was modified in 2018-19 which affected enrollment numbers. There were more CTE elective course students in Dallas ISD in 2018-19 ($n = 20,371$) than 2017-18 ($n = 20,232$; Grimberg et al., 2018) and 2016-17 ($n = 19,277$; Turner et al., 2017). About a quarter (23.8%) of middle school students were enrolled in a CTE elective. Almost seventy-one percent (70.6%) of Dallas ISD high school students were enrolled in a CTE coherent sequence (39.3%) or a CTE elective (31.3%) in 2018-19. The percentage of non-CTE middle and high school students decreased as grade level increased.

Table 1: Student Enrollment by Grade and CTE Status: 2018-19

Grade	Non-CTE		CTE Elective		Coherent Sequence		Total N
	n	%	n	%	n	%	
Middle School							
6	9,883	88.7	1,261	11.3	0	0.0	11,144
7	7,978	75.6	2,576	24.4	0	0.0	10,554
8	6,620	63.5	3,804	36.5	0	0.0	10,424
Total	24,481	76.2	7,641	23.8	0	0.0	32,122
High School							
9	4,450	36.5	6,878	56.4	864	7.1	12,192
10	3,329	31.4	2,643	24.9	4,631	43.7	10,603
11	2,274	24.2	1,393	14.8	5,731	61.0	9,398
12	1,923	22.6	1,816	21.4	4,763	56.0	8,502
Total	11,976	29.4	12,730	31.3	15,989	39.3	40,695
All Secondary							
Total	36,457	50.1	20,371	28.0	15,989	22.0	72,817

Source: District Public Education Information Management System (PEIMS) demographic data file dated October 26, 2018. District CTE status file dated January 24, 2019.

Note: CTE = Career and technical education. Students cannot be classified as coherent sequence students until grade 9. Percentages may not add up to 100 due to rounding.

A lower percentage of coherent sequence students were English learners (29.0%) than CTE elective (43.1%) or non-CTE students (41.5%) (Table 2). There was a higher percentage of non-CTE special education students (10.9%) than CTE elective (7.5%) or coherent sequence students (7.5%). A slightly lower percentage of non-CTE students were Hispanic (69.6%) than coherent sequence (73.6%) or CTE elective (73.8%) students. Refer to Appendix C for the demographic characteristics of CTE students in middle and high school.

Table 2: CTE Student Characteristics: 2018-19

Characteristic	Non-CTE		CTE Elective		Coherent Sequence		Total <i>N</i>
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
English Learner	15,132	41.5	8,774	43.1	4,629	29.0	28,535
Special Education	3,974	10.9	1,530	7.5	1,197	7.5	6,701
Talented and Gifted	6,536	17.9	3,110	15.3	2,588	16.2	12,234
Econ Dis	30,115	82.6	17,215	84.5	12,908	80.7	60,238
Homeless	360	1.0	164	0.8	97	0.6	621
At-Risk	17,632	48.4	10,453	51.3	6,299	39.4	34,384
Ethnicity							
Hispanic	25,280	69.3	14,992	73.8	11,763	73.6	52,035
African American	7,851	21.6	4,093	20.1	3,413	21.3	15,357
White	2,110	5.8	784	3.8	439	2.7	3,333
Asian	551	1.5	168	0.8	227	1.4	946
Other	665	1.8	334	1.6	147	0.9	1,146
Gender							
Female	18,462	50.6	9,608	47.2	7,823	48.9	35,893
Male	17,995	49.4	10,763	52.8	8,166	51.1	36,924
Total	36,457	100.0	20,371	100.0	15,989	100.0	72,817

Source: District Public Education Information Management System (PEIMS) demographic data file dated October 26, 2018. District CTE status file dated January 24, 2019.

Note: CTE = Career and technical education. Econ Dis = economically disadvantaged. Other = American Indian or Alaskan Native, Native Hawaiian or other Pacific Islander, two or more races, or unknown. Non-CTE and CTE Elective includes students in grades six through eight. Students cannot be classified as coherent sequence students until grade nine.

Career Pathways

There were 271 career pathways available in Dallas ISD in 2018-19, slightly less than offered in 2017-18 ($n = 275$) (Table 3). The increase in the number of career pathways offered since 2013-14 was accelerated by the emphasis that HB 5 placed on coherent sequences of CTE courses which encouraged high school students to earn endorsements in specific areas of study.

Table 3: 2012-13 through 2018-19 Career Pathways by Career Clusters

Career Clusters	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19
Business and Industry Endorsement							
Agriculture, Food & Natural Resources	2	3	4	7	7	7	7
Architecture & Construction	5	5	9	9	8	13	13
Arts, A/V Technology & Communication	10	5	13	16	20	22	23
Business/Marketing ^a	9	7	19	-	-	-	-
Business	-	-	-	21	35	38	39
Marketing	-	-	-	32	38	38	34
Finance	6	8	10	12	20	26	25
Hospitality & Tourism	8	4	12	22	28	28	28
Information Technology	9	6	13	16	36	41	40
Transportation, Distribution & Logistics	5	2	8	8	5	5	5
Manufacturing ^b	-	-	1	2	4	4	4
Public Services Endorsement							
Education & Training	5	4	6	6	6	9	8
Government and Administration	2	1	2	2	2	2	2
Health Science	3	3	7	17	8	10	11
Human Services	2	6	1	2	3	3	3
Law/Public Safety	8	4	6	8	10	9	9
STEM Endorsement							
STEM	10	9	12	16	16	20	20
Total	84	67	123	196	246	275	271

Source: Data were provided by the CTE Department on March 19, 2019.

Note: CTE = Career and Technical Education. STEM = Science, Technology, Engineering, and Mathematics. A/V = Audio and video. ^aIn 2015-16, the business/marketing cluster was split into business career cluster and marketing career cluster. ^bThe manufacturing pathway was in the planning stage in 2014-15 and began enrolling students in 2015-16.

National Academy Foundation Participation

A total of 10,464 students participated in 47 NAF academies (Table 4). There were 1,285 more Dallas ISD students who participated in a NAF academy in 2018-19 compared to 2017-18 ($N = 9,179$; Grimberg et al., 2018) and 3,856 more than participated in 2016-17 ($N = 6,608$; Turner et al., 2017). Townview School of Science and Engineering Magnet Academy of Engineering (AOE) had the highest student enrollment in the district ($n = 496$), followed by Woodrow Wilson High School AOE ($n = 479$) and H. Grady Spruce Academy of Finance (AOF) ($n = 475$). W.T. White Academy of Health Science (AOHS) had the lowest student enrollment in the district ($n = 30$), followed by Wilmer Hutchins AOF ($n = 35$), Carter AOF ($n = 45$), and Hillcrest AOHS ($n = 48$). For a complete listing of the locations of CTE pathways and NAF academies, see Appendix A.

Table 4: Dallas ISD NAF Student Enrollment (N = 10,464): 2018-19

Students		Students	
Academy Name	n	Academy Name	n
Bryan Adams AOHS	231	Roosevelt AOHS	247
Bryan Adams AOE	199	Skyline AOE	152
Adamson AOF	195	Skyline AOF	259
Adamson AOHS	184	Skyline AOHS	154
Carter AOF	45	Skyline AOHT	217
Carter AOIT	114	Skyline AOIT	419
Conrad AOE	161	South Oak Cliff AOE	163
Conrad AOF	146	South Oak Cliff AOIT	177
Conrad AOHS	211	Spruce AOE	386
Conrad AOHT	174	Spruce AOF	475
Conrad AOIT	186	Spruce AOIT	406
Hillcrest AOE	155	Sunset AOF	238
Hillcrest AOHS	48	Sunset AOHS	274
IDEA AOF	315	Townview School of Science and Engineering Magnet AOE	496
Jefferson AOE	257	W.T. White AOE	256
Jefferson AOF	266	W.T. White AOHS	30
Jefferson AOHT	219	W.T. White AOIT	75
Kimball AOE	176	Woodrow Wilson AOE	479
Kimball AOHT	327	Woodrow Wilson AOF	296
Lincoln AOE	75	Woodrow Wilson AOHT	161
Madison AOIT	210	Wilmer Hutchins AOF	35
North Dallas AOF	312	Wilmer Hutchins AOHT	206
North Dallas AOE	153	Wilmer Hutchins AOIT	79
North Dallas AOIT	425		

Source: Career and Technical Education Department NAF enrollment file dated February 28, 2019.

Note: CTE = Career and technical education. NAF = National Academy Foundation. HS = High school. AOE = Academy of Engineering. AOHS = Academy of Health Science. AOIT = Academy of Information Technology. AOF = Academy of Finance. AOHT = Academy of Hospitality and Tourism.

Career Institutes

There were 952 Dallas ISD students who participated in five career institutes (Table 5). W.H. Adamson Institute of Automotive Technology had the largest student enrollment ($n = 370$), followed by the H. Grady Spruce Automotive Collision Refinishing and Repair Career Institute ($n = 325$). The L.G. Pinkston Institute of Welding had the lowest student enrollment ($n = 18$). More grade nine students entered a career institute in 2018-19 than other grade levels.

Table 5: Dallas ISD Career Institute Student Enrollment by Grade: 2018-19

Career Institute	Pathway	Grade Level				All Grades
		9	10	11	12	
Adamson	Automotive Technology	138	107	70	55	370
Spruce	Automotive Collision	108	97	65	55	325
Sammuel	Construction	53	44	16	28	141
Wilmer-Hutchins	Logistics and Manufacturing	36	24	24	14	98
Pinkston	Welding	0	12	2	4	18
Total		335	284	177	156	952

Source: Career and Technical Education Department career institute enrollment file dated March 28, 2019.

Course Enrollment by Career Clusters

The CTE courses that enrolled the highest numbers of Dallas ISD high school students were: Business, Administration, and Management ($n = 8,326$); Information Technology ($n = 6,583$); Finance ($n = 5,115$); Arts, A/V Technology, and Communications ($n = 4,735$); and Health Science ($n = 4,724$) (Table 6). The CTE courses that enrolled the fewest Dallas ISD high school students were: Manufacturing ($n = 309$); Education and Training ($n = 650$); Agricultural, Food, and Natural Resources ($n = 673$); and Government and Administration ($n = 696$).

Table 6: Number of High School CTE Course Enrollments by Career Cluster and CTE Status

Career Cluster	CTE Elective <i>n</i>	Coherent Sequence <i>n</i>	Total CTE Enrollment <i>n</i>	Enrollment by Cluster (%)
Agriculture, Food, and Natural Resources	307	366	673	1.3
Architecture and Construction	471	859	1,330	2.6
Arts, A/V Technology, and Communications	1,945	2,790	4,735	9.1
Business, Management, and Administration	3,530	4,796	8,326	16.0
Career Development	90	1,003	1,093	2.1
Education and Training	249	401	650	1.3
Finance	2,160	2,955	5,115	9.9
Government and Administration	11	685	696	1.3
Health Science	1,839	2,885	4,724	9.1
Hospitality and Tourism	990	1,478	2,468	4.8
Human Services	1,423	1,646	3,069	5.9
Information Technology	2,731	3,852	6,583	12.7
Law, Public Safety, Corrections, and Security	922	1,740	2,662	5.1
Manufacturing	108	201	309	0.6
Marketing	2,219	1,691	3,910	7.5
STEM	2,196	2,149	4,345	8.4
Transportation, Distribution, and Logistics	460	765	1,225	2.4
Total	21,651	30,262	51,913	100.1

Source: District CTE status file dated January 24, 2019. District secondary course file dated August 14, 2019.

Note: A/V = Audio/Video. CTE = Career and technical education. TEA = Texas Education Agency. STEM = Science, Technology, Engineering, and Mathematics. Percentages may not add up to 100 due to rounding.

Course Enrollment Rates for Nontraditional Training and Employment

Nontraditional courses are identified as related to occupations or fields of work for which individuals from one gender comprise less than 25 percent of the individuals employed. In 2018-19, a higher number of females were enrolled in CTE courses nontraditional for their gender than males ($n = 3,213$ versus $n = 2,554$) (Table 7). This was lower than the 2017-18 enrollment of females ($n = 3,570$) and males ($n = 3,339$) in courses nontraditional for their gender. Completion rates ranged from 73.1 percent to 96.7 percent for females and 78.0 percent to 100.0 percent for males. The Business, Management, and Administration career cluster enrolled the highest number of nontraditional male students ($n = 1,695$). The

law, public safety, corrections, and security career cluster enrolled the highest number of nontraditional female students ($n = 607$).

Table 7: Nontraditional CTE Course Enrollment and Completion Rates for Males and Females by Career Cluster

Career Cluster	Male Nontraditional		Female Nontraditional	
	N	%	N	%
Agriculture, Food, and Natural Resources	10	100.0	131	92.4
Architecture and Construction	-	-	256	93.4
Arts, A/V Technology, and Communications	22	100.0	119	73.1
Business, Management, and Administration	1,695	83.7	274	88.3
Career Development	-	-	-	-
Education and Training	20	95.0	-	-
Finance	346	78.0	-	-
Government and Administration	-	-	-	-
Health Science	201	92.5	-	-
Hospitality and Tourism	-	-	390	96.7
Human Services	260	83.5	-	-
Information Technology	-	-	456	82.5
Law, Public Safety, Corrections, and Security	-	-	607	90.8
Manufacturing	-	-	87	81.6
Marketing	-	-	394	92.1
STEM	-	-	412	85.7
Transportation, Distribution, and Logistics	-	-	87	85.1
Total	2,554	83.9	3,213	88.8

Source: District Public Education Information Management System (PEIMS) demographic data file dated October 26, 2018. District secondary course file dated August 14, 2019. TEA nontraditional course list retrieved from <http://tea.texas.gov/cte/> on August 20, 2019.

Note: A/V = Audio/Video. CTE = Career and technical education. TEA = Texas Education Agency. STEM = Science, Technology, Engineering, and Mathematics. "-" indicates that no students were enrolled.

What were the completion rates of CTE dual credit courses?

Methodology

CTE dual credit enrollment and completion rates were calculated by merging CTE program enrollment data dated January 24, 2019 with district course files dated August 14, 2019. Courses were defined as complete if a student earned credit for the course at the end of the 2018-19 school year. The dual credit enrollment and completion rates of CTE coherent sequence students were compared to students who did not participate in a CTE coherent sequence of courses (non-CTE Coherent).

Results

A total of 4,980 Dallas ISD students (including 2,917 CTE coherent sequence students, 58.6%) participated in 10,475 CTE dual credit courses during the 2018-19 school year. The schools with the highest numbers of CTE dual credit enrollments were: Pinkston ($n = 801$) followed by Spruce ($n = 742$), Seagoville ($n = 723$), Jefferson ($n = 686$), Roosevelt ($n = 629$), and Townview Business ($n = 623$) (Table 8). Overall, 88.3 percent ($n = 9,264$) of CTE dual credit courses were completed. A higher percentage of CTE coherent sequence students completed a CTE dual credit course (89.7%) than non-CTE coherent students (85.0%). The schools with the highest percentages of students who completed CTE dual credit courses were: Townview Talented and Gifted (TAG) (100.0%) and Townview Education (100.0%) followed by

Wilmer-Hutchins (98.8%), Samuell (98.1%), Conrad (97.6%), Townview Health (97.2%), Molina (97.1%), and Pinkston (97.0%). The schools with the lowest percentages of students who completed CTE dual credit courses were: South Oak Cliff (67.9%) followed by North Dallas (77.9%) and Kimball (78.4%).

Table 8: CTE Dual Credit Course Enrollment and Completion Rates by Campus and CTE Status

Campus	Non-CTE Coherent		Coherent Sequence		Total	
	N	%	N	%	N	%
Adams	70	90.0	*	*	73	90.4
Adamson	95	84.2	338	87.9	433	87.1
Carter	151	78.1	369	89.7	520	86.3
Conrad	105	96.2	316	98.1	421	97.6
Garza	237	93.2	*	*	240	93.3
Gilliam	206	95.6	-	-	206	95.6
Hillcrest	59	86.4	54	100.0	113	92.9
Idea	11	81.8	88	90.9	99	89.9
Jefferson	61	91.8	625	93.4	686	93.3
Kimball	179	63.1	215	91.2	394	78.4
Lassiter	187	95.2	-	-	187	95.2
Lincoln	40	87.5	111	91.9	151	90.7
Madison	58	60.3	429	83.9	487	81.1
Manns	*	*	-	-	*	*
Molina	222	96.4	219	97.7	441	97.1
North Dallas	124	83.9	148	73.0	272	77.9
Obama	*	*	-	-	*	*
Pinkston	94	98.9	707	96.7	801	97.0
Rangel	*	*	-	-	*	*
Roosevelt	113	66.4	516	88.0	629	84.1
Samuell	207	98.1	51	98.0	258	98.1
Seagoville	32	81.3	691	84.8	723	84.6
Skyline	58	79.3	441	82.8	499	82.4
South Oak Cliff	219	56.6	286	76.6	505	67.9
Spruce	200	70.0	542	84.3	742	80.5
Sunset	46	100.0	19	84.2	65	95.4
Townview Business	*	*	620	92.1	623	91.8
Townview Education	-	-	9	100.0	9	100.0
Townview Health	-	-	319	97.2	319	97.2
Townview TAG	20	100.0	-	-	20	100.0
Washington	105	95.2	34	79.4	139	91.4
White	22	90.9	70	97.1	92	95.7
Wilmer-Hutchins	132	97.7	190	99.5	322	98.8
Total	3,062	85.0	7,413	89.7	10,475	88.3

Source: District Public Education Information Management System (PEIMS) demographic data file dated October 26, 2018. District CTE status file dated January 24, 2019. District secondary course file dated August 14, 2019.

Note: CTE = Career and technical education. TAG = Talented and Gifted. Students could enroll in multiple dual credit courses. There were 4,965 students who enrolled in at least one CTE dual credit courses in 2018-19. Non-CTE Coherent students include Non-CTE students and students who enrolled in CTE electives. "-" indicates that no students were enrolled in a dual credit course. "*" completion rates were masked because five or fewer students were enrolled.

How many industry-based certifications were earned in 2018-19?

Methodology

CTE program management provided a comprehensive list of all industry-based certifications attempted in Dallas ISD as of July 23, 2019. Certification data was reported to the CTE Department by teachers. Certifications were categorized as those identified by the TEA for the A to F accountability system, those identified as employable certifications in the Perkins Effectiveness Report (PER), as well as all certifications offered at Dallas ISD. Certification data for 2017-18 was provided by the CTE Department on September 7, 2019 and 2016-17 data was extracted from PowerSchool by the Information Technology Department on February 13, 2019. Descriptive statistics were used to calculate the number of certifications earned and pass rates by certification and tier.

Results

Overall, 3,529 Dallas ISD students took 5,038 industry-based certifications exams in 2018-19 earning 4,652 certifications (92.3 percent pass rate) (Table 9). This was a decrease from the reported number of certifications earned in 2017-18 ($n = 5,117$) and very similar to the number of certifications earned in 2016-17 ($n = 4,643$). One-third (33.8%) of Dallas ISD students who graduated in 2018-19 and were enrolled in the district four years prior received at least one certification which was lower than 2017-18 (36.6%). Certifications identified by TEA for the A to F accountability system accounted for 4.6 percent ($n = 214$) of the total certifications earned. Certifications identified in the PER accounted for 34.9 percent ($n = 1,622$) of the total certifications earned. CTE coherent sequence students received three-quarters (76.2%) of all certifications in the district which was higher than CTE elective students (16.8%) or non-CTE students (7.0%). The numbers and percentages of individual certifications earned in Dallas ISD are provided in Appendix F.

Table 9: Industry-Based Certifications Earned and Passing Rates by CTE Status: 2018-19

Campus	A - F		PER		All Certifications	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
CTE Coherent	202	89.8	1,010	82.9	3,545	92.0
CTE Elective	11	91.7	397	85.0	781	91.3
Non-CTE	1	100.0	215	98.2	326	98.8
All Students	214	89.9	1,622	85.1	4,652	92.3

Source: Certification data provided by CTE Department dated July 23, 2019. District Public Education Information Management System (PEIMS) demographic data file dated October 26, 2018.

Note: *n* = Number of certifications that were earned. CTE = Career and technical education. A-F = Certifications identified by the TEA for the A to F accountability system. PER = Certifications identified as employable in the Perkins Effectiveness Report. Certifications could be categorized into both A-F and PER. Percentages may not add up to 100 due to rounding.

How did Dallas ISD perform on CTE-related accountability indicators?

Methodology

HB22 required the TEA to evaluate the academic performance of school districts with an accountability rating of A through F based on three domains: 1) student achievement, 2) school progress, and 3) closing the gaps. College, career, and military readiness (CCMR) indicators account for 40 percent of the weighted performance of high school campuses, K-12 campuses, and school districts in the student achievement domain.⁶ CCMR indicators include dual credit course completion, associate degrees earned, CTE coherent sequence coursework completion, and earned industry based certifications among others. Ratings were released for the first time in August 2018 for the 2017-18 school year. The 2019 CCMR ratings were released in August 2019 reflecting data from the 2018-19 school year.

TEA Performance-Based Monitoring staff developed the PBMAS, an automated data system that reports annually on the performance of school districts and charter schools. School improvement staff monitors and supports intervention activities within this data-driven and performance-based system. If issues with noncompliance, student performance, or program effectiveness are identified, school districts are required to participate in activities and may be subjected to additional sanctions and interventions, including on-site reviews. Program areas within PBMAS reports include bilingual education/English as a second language (BE/ESL), certain Title I programs, special education, and CTE.

Each indicator is assigned a numeric performance level. A performance level of zero indicates that the state standard was met. Indicator measures not meeting the standard are assigned performance levels of one to four, higher performance levels signifying areas of concern. Districts that receive high numbers of performance levels of two and higher are required to submit reports to TEA addressing indicators of concern. These reports include a focused data analysis (districts must review data related to indicators of concern and identify causal factors, patterns, and trends contributing to low performance, program deficiencies, and poor data quality), and possibly a targeted improvement plan (used to guide district and campus planning for improved student performance or program effectiveness). Furthermore, program areas of each school district were staged for intervention based on the mean of all PBMAS program area performance levels.

Results

The 2019 Dallas ISD CCMR score (based on 2018 annual graduates) was 86 out of 100 which was lower than Austin ISD (94), Houston ISD (91), and San Antonio ISD (90) (Table 10). Fifty-seven percent (57%) of 2018 Dallas ISD graduates were college, career, or military ready which was lower than Austin ISD (77%), Houston ISD (63%) and San Antonio ISD (61%). A lower percentage of Dallas ISD students completed a college-level dual credit course (11%) than San Antonio ISD (20%), Austin ISD (17%), and Houston ISD (14%) students. The percentage of Dallas ISD students who earned an associate degree (2%)

⁶ The other sixty percent of the student achievement domain is weighted by *State of Texas Assessments of Academic Readiness End-of-Course (STAAR EOC)* performance (40%) and graduation rates (20%).

was higher than students in Austin ISD (1%), but lower than students in San Antonio ISD (5%) and Houston ISD (4%). Dallas ISD had a lower percentage of students who earned an approved industry-based certification (1%) than students in Houston ISD (3%), Austin ISD (3%), and San Antonio ISD (2%). A higher percentage of Dallas ISD students, who did not meet any other criteria, completed CTE coherent sequence coursework aligned with industry-based certifications (14%) than students in San Antonio ISD (11%), Houston ISD (6%), and Austin ISD (3%).

Table 10: 2019 Dallas ISD, Houston ISD, Austin ISD, and San Antonio ISD CTE College, Career, and Military Readiness Indicators

Indicator	Dallas ISD		Houston ISD		Austin ISD		San Antonio ISD	
	N	%	N	%	N	%	N	%
Graduated College, Career, or Military Ready	8,085	57	11,005	63	4,540	77	2,656	61
Met TSI criteria in both ELA/Reading and Mathematics	2,193	27	4,232	38	2,905	64	829	31
Met TSI criteria in ELA/Reading	3,941	49	6,150	56	3,413	75	1,326	50
Met TSI criteria in Mathematics	2,376	29	4,620	42	3,137	69	950	36
Met criterion score on an AP/IB Exam in any subject	1,762	22	2,842	26	1,528	34	343	13
Earned dual credit for at least 3 hours in ELA or Mathematics or 9 hours in any subject	893	11	1,588	14	765	17	526	20
Earned an industry-based certification from approved list	66	1	338	3	126	3	49	2
Earned a level I or level II certificate in any workforce education area	24	0	40	0	8	0	46	2
Earned an associate degree while in high school	135	2	416	4	53	1	128	5
Graduated with Completed Individual Education Program (IEP) and Workforce Readiness	201	2	175	2	72	2	128	5
Identified as receiving special education services and earned an advanced degree plan	170	2	310	3	185	4	118	4
Enlisted in the Armed Forces	14	0	550	5	81	2	73	3
CTE coherent sequence aligned with an industry-based certification and did not meet any other criteria	1,144.5	14	666.5	6	118.5	3	279.5	11

Source: 2019 Texas district/school report cards and accountability data available at <https://txschools.gov/>: Retrieved August 27, 2019.

Note: CTE = Career and Technical Education. TSI = Texas Success Initiative. SAT = Scholastic Aptitude Test. TSIA = Texas Success Initiative Assessment. AP = Advanced Placement. IB = International Baccalaureate. ISD = Independent School District. ELA= English Language Arts.

The Dallas ISD CCMR score increased from 74 in 2018 to 86 in 2019 representing an improvement in the performances of district students on measurements of college, career, and military readiness. There was an 11 percentage point increase in the percentage of students who graduated college, career, and military ready (Table 11). The number of students who enlisted in the armed forces decreased from 65 students in 2017-18 to 14 students in 2018-19. There were fewer students who earned an associate degree in high school in 2018-19 ($n = 135$) compared to 2017-18 ($n = 177$).

Table 11: 2018 and 2019 Dallas ISD College, Career, and Military Readiness Indicators

Indicator	2018		2019	
	N	%	N	%
Graduated College, Career, or Military Ready	7,685	46	8,085	57
Met TSI criteria in both ELA/Reading and Mathematics	1,962	26	2,193	27
Met criterion score on an AP/IB Exam in any subject	1,627	21	1,762	22
Earned dual credit for at least 3 hours in ELA or Mathematics or 9 hours in any subject*	753	10	893	11
Earned an industry-based certification from approved list	103	1	66	1
Earned an associate degree while in high school	177	2	135	2
Graduated with Completed Individual Education Program (IEP) and Workforce Readiness	206	3	201	2
Enlisted in the Armed Forces	65	1	14	0

Source: 2019 Texas district/school report cards and accountability data available at <https://txschools.gov/>: Retrieved August 27, 2019.

Note: CTE = Career and Technical Education. TSI = Texas Success Initiative. SAT = *Scholastic Aptitude Test*. TSIA = *Texas Success Initiative Assessment*. AP = Advanced Placement. IB = International Baccalaureate. ISD = Independent School District. ELA= English Language Arts.

The Dallas ISD CTE program area was stage one (out of four) for the 2017-18 school year indicating that no interventions were required in the 2018-19 school year. The three-year performances of the district on PBMAS CTE program area performance level indicators are shown in Table 12. Between 2016 and 2018, CTE STAAR EOC passing rates increased on every subject area tested except English language arts. This was true for limited English proficiency students (-1.6 percentage points), economically disadvantaged students (-5.7 percentage points), and all CTE students (-6.9 percentage points). Dallas ISD did not reach targets and received performance levels of three on some CTE Special Education STAAR EOC passing rate performance indicators in 2016, 2017, and 2018. While passing rates have increased on every CTE special education STAAR EOC exam over the past three years, the performances of special education CTE students are significantly lower than other CTE students. The annual dropout rates of CTE students has decreased from 2.0 percent in 2016 to 1.4 percent in 2018 while the graduation rate has held steady. Between 2016 and 2018, the nontraditional male course completion rate has increased (5.8 percentage points) while the nontraditional female course completion rate has decreased (-5.4 percentage points).

Table 12: Dallas ISD CTE Program Area Performance: 2016, 2017, and 2018 PBMAS Report

Indicator	2016			2017			2018		
	N	%	PL	N	%	PL	N	%	PL
CTE STAAR EOC Passing Rate									
Mathematics	320	69.1	0	897	55.0	1	2,532	76.9	0
Science	180	58.3	2	841	66.3	1	3,619	85.3	0
Social Studies	1,322	85.3	0	6,095	92.0	0	7,162	93.1	0
English Language Arts	5,615	67.1	0	9,897	56.1	1	12,743	60.2	0
CTE Limited English Proficiency STAAR EOC Passing Rate									
Mathematics	109	66.1	0	402	55.0	1	1,132	77.6	0
Science	72	65.3	1	430	65.8	1	1,421	79.6	0
Social Studies	201	60.7	1	1,354	84.3	0	1,693	84.4	0
English Language Arts	1,460	44.7	2	3,542	37.9	2	4,788	43.1	2
CTE Economically Disadvantaged STAAR EOC Passing Rate									
Mathematics	277	69.0	0	777	54.6	2	2,178	77.7	0
Science	152	57.2	2	713	65.6	1	3,088	85.9	0
Social Studies	1,134	85.2	0	5,217	91.8	0	6,100	93.1	0
English Language Arts	4,809	65.9	0	8,751	55.7	1	10,944	60.2	0
CTE Special Education STAAR EOC Passing Rate									
Mathematics	87	17.2	3	188	29.3	3	320	40.0	3
Science	74	24.3	3	177	36.2	3	372	49.5	3
Social Studies	272	41.9	3	474	53.6	2	502	60.4	1
English Language Arts	347	8.9	3	900	16.8	4	1,120	17.0	4
CTE Dropout/Graduation Rates									
CTE Annual Dropout Rate*	17,164	2.0	0	16,869	1.5	0	20,128	1.4	0
CTE Graduation Rate	6,008	93.5	0	5,545	93.3	0	5,342	93.5	0
CTE Nontraditional Course Completion Rate									
Nontraditional - Males	3,820	39.3	1	4,616	44.5	RO	4,564	45.1	0
Nontraditional - Females	8,490	44.9	0	5,651	38.3	RO	6,128	39.5	1

Source: Texas Education Agency 2016, 2017, and 2018 PBMAS Report for Dallas ISD. Detailed information about the calculation of rates and assignment of performance levels can be found at <http://tea.texas.gov/pbm/PBMASManuals.aspx>

Note: * = The CTE Annual Dropout Rate only includes students in grades nine through twelve. CTE = Career and Technical Education. PBMAS = Performance-Based Monitoring Analysis System. PL = Performance Level Indicator. LEP = Limited English Proficiency. RO = Report Only. STAAR EOC = State of Texas Assessments of Academic Readiness End-of-Course.

The performances of Dallas ISD on CTE PBMAS indicators were compared to the state in Table 13. The 2018 average of all Dallas ISD CTE performance level indicators was 0.7. The average of all performance level indicators on the 2018 PBMAS State Report was also 0.7. Dallas ISD CTE students outperformed students at the state level on all CTE limited English proficiency (LEP) STAAR EOC passing rate indicators. Students at the state level outperformed Dallas ISD students on all CTE special education STAAR EOC passing rate performance indicators. Dallas ISD CTE students had slightly more male and female students who completed courses nontraditional for their gender than students at the state level.

Table 13: Dallas ISD and State CTE Program Area Performance: 2018 PBMAS Report

Indicator	District			State		
	N	%	PL	N	%	PL
CTE STAAR EOC Passing Rate						
Mathematics	2,532	76.9	0	128,417	81.0	0
Science	3,619	85.3	0	171,272	87.5	0
Social Studies	7,162	93.1	0	209,999	93.1	0
English Language Arts	12,743	60.2	0	431,559	69.2	0
CTE Limited English Proficiency STAAR EOC Passing Rate						
Mathematics	1,132	77.6	0	17,767	68.9	0
Science	1,421	79.6	0	20,743	67.3	1
Social Studies	1,693	84.4	0	17,002	75.1	0
English Language Arts	4,788	43.1	2	52,297	32.4	2
CTE Economically Disadvantaged STAAR EOC Passing Rate						
Mathematics	2,178	77.7	0	85,142	78.2	0
Science	3,088	85.9	0	105,200	83.7	0
Social Studies	6,100	93.1	0	118,237	90.5	0
English Language Arts	10,944	60.2	0	266,074	62.1	0
CTE Special Education STAAR EOC Passing Rate						
Mathematics	320	40.0	3	16,145	46.4	2
Science	372	49.5	3	16,350	54.3	3
Social Studies	502	60.4	1	16,002	63.0	1
English Language Arts	1,120	17.0	4	40,239	22.6	3
CTE Dropout/Graduation						
CTE Annual Dropout Rate*	20,128	1.4	0	726,166	1.0	0
CTE Graduation Rate	5,342	93.5	0	173,800	95.8	0
CTE Nontraditional Course Completion Rate						
Nontraditional - Males	4,564	45.1	0	290,748	38.9	1
Nontraditional - Females	6,128	39.5	1	363,699	32.3	1

Source: Texas Education Agency 2018 PBMAS Report for Dallas ISD and 2018 PBMAS State Report. Detailed information about the calculation of rates and assignment of performance levels can be found at <http://tea.texas.gov/pbm/PBMASManuals.aspx>

Note: * = The CTE Annual Dropout Rate only includes students in grades nine through twelve. CTE = Career and Technical Education. PBMAS = Performance-Based Monitoring Analysis System. PL = Performance Level Indicator. STAAR EOC = State of Texas Assessments of Academic Readiness End-of-Course.

What were the performances of CTE students on State of Texas Assessments of Academic Readiness End-of-Course (STAAR EOC) exams?

Methodology

STAAR EOC performance was used to examine the academic effectiveness of the CTE program. There were four categories of performance on STAAR EOC exams: Masters Grade Level (Masters), Meets Grade Level or Above (Meets+), Approaches Grade Level or Above (Approaches+), and Did Not Meet Grade Level. These performance categories are determined by individual student STAAR scale scores on established cut points. STAAR EOC assessment data were extracted from the district STAAR EOC data file dated June 4, 2019 and merged with the district CTE status file from January 24, 2019 and the district sociodemographic file dated October 26, 2018. STAAR EOC data from 2017-18 and 2016-17 were

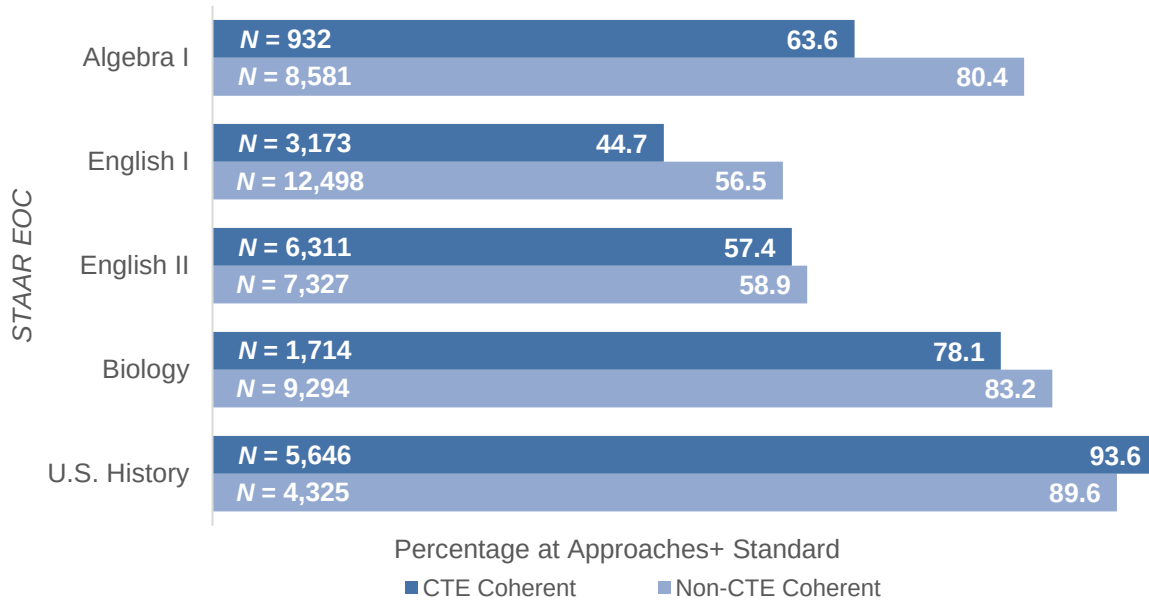
extracted from district *STAAR EOC* data files dated September 6, 2018 and April 30, 2018 and merged with CTE status files dated July 24, 2018 and July 24, 2017.

Frequency and crosstab analyses were used to calculate the percentage of students who attained the Approaches+ and Meets+ performance standards grouped by *STAAR EOC* subtest and CTE status. The performances students enrolled in coherent sequences of CTE courses were compared to the performances of high school students who did not enroll in coherent sequence (non-CTE and CTE elective). The performances of special population groups (special education students, students from economically disadvantaged families, and English learners) were also examined. Additionally, 2018-19 CTE student performances were compared to performances in 2017-18 and 2016-17. As noted previously, the criteria for identifying students in CTE programs was modified in 2018-19, which affected enrollment numbers. The percentages of students attaining the Approaches+, Meets+, and Masters grade level performance standards are grouped by *EOC* subtest, CTE status, and campus in Appendix D.

Results

The percentages of CTE coherent sequence students who reached the Approaches+ standard were lower than non-CTE coherent sequence students (CTE elective and non-CTE) on *Algebra I EOC* (-16.8 percentage point difference), *English I EOC* (-11.8 percentage point difference), *Biology EOC* (-5.1 percentage point difference), and *English II EOC* (-1.5 percentage point difference) (Figure 1). A higher percentage of CTE coherent sequence students reached the Approaches+ standard than non-CTE coherent students on *U.S. History EOC* (4.0 percentage point difference).

Figure 1: Percentages of High School Students at STAAR EOC Approaches+ Standard by CTE Status: 2018-19

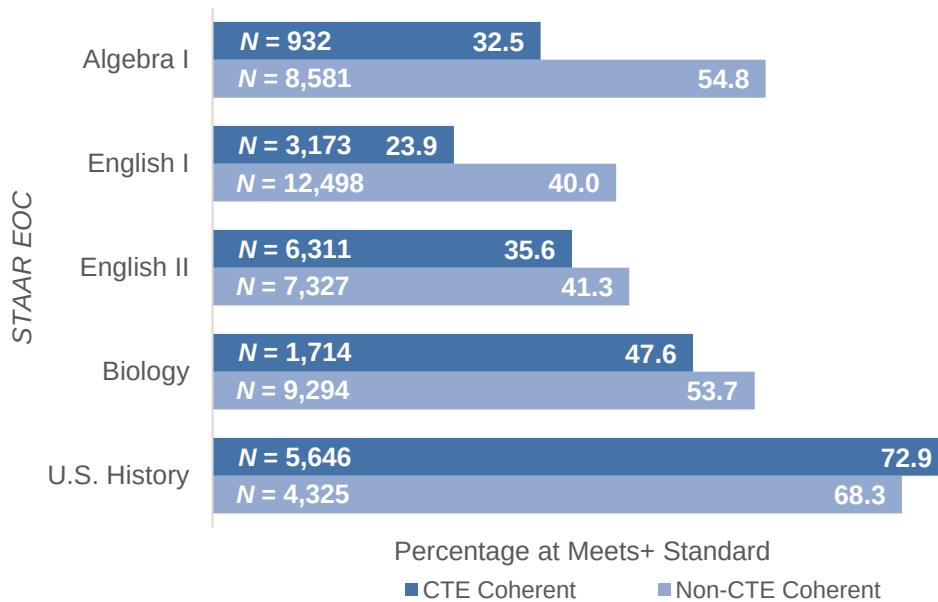


Source: District STAAR EOC file dated June 4, 2019. District Public Education Information Management System (PEIMS) demographic data file dated October 26, 2018. District CTE status file dated January 24, 2019.

Note: Data reflects the fall 2018 and spring 2019 STAAR EOC results including retests. CTE = Career and technical education. STAAR EOC = State of Texas Assessments of Academic Readiness End-of-Course. N = Number of students tested. Approaches+ rates reflect percentage of students meeting or exceeding the standard for all administrations of the STAAR EOC exams. Non-CTE Coherent students include Non-CTE students and students who enrolled in CTE electives. The criteria for identifying students in CTE programs was modified in 2018-19 to more closely align with state accountability data causing the number of students tested to be lower than previous years.

The percentages of CTE coherent sequence students who reached the Meets+ standard were lower than non-CTE coherent sequence students on *Algebra I EOC* (-22.3 percentage point difference), *English I* (-16.1 percentage point difference), *Biology EOC* (-6.1 percentage point difference), and *English II EOC* (-5.7 percentage point difference) (Figure 2). A higher percentage of CTE coherent sequence students reached the Meets+ standard than non-CTE coherent students on *U.S. History EOC* (4.6 percentage point difference).

Figure 2: Percentages of High School Students at STAAR EOC Meets+ Standard by CTE Status: 2018-19



Source: District STAAR EOC file dated June 4, 2019. District Public Education Information Management System (PEIMS) demographic data file dated October 26, 2018. District CTE status file dated January 24, 2019.

Note: Data reflects the fall 2018 and spring 2019 STAAR EOC results including retests. CTE = Career and technical education. STAAR EOC = State of Texas Assessments of Academic Readiness End-of-Course. N = Number of students tested. Meets+ rates reflect percentage of students meeting or exceeding the standard for all administrations of the STAAR EOC exams. Non-CTE Coherent students include Non-CTE students and students who enrolled in CTE electives. The criteria for identifying students in CTE programs was modified in 2018-19 to more closely align with state accountability data causing the number of students tested to be lower than previous years.

The performances of CTE coherent sequence students on STAAR EOC exams were examined for progress over a three-year period (Table 14). As noted previously, the criteria for identifying students in CTE programs was modified in 2018-19 to more closely align with state accountability data causing the number of students tested to be lower than previous years. Between the 2016-17 and 2018-19 school years, the percentage of CTE students at Approaches+ decreased on *Algebra I EOC* (-7.9 percentage points), *English I EOC* (-6.9 percentage points), and *Biology EOC* (-5.5 percentage points). The percentage of CTE coherent sequence students at Approaches+ increased slightly on *U.S. History EOC* (1.2 percentage points) and *English II EOC* (0.1 percentage points).

Table 14: Number and Percentage of CTE Coherent Sequence Students at STAAR EOC Approaches+ Standard 2016-17 through 2018-19

STAAR EOC	2016-17		2017-18		2018-19*		2-year Difference
	N	%	N	%	N	%	
Algebra I	2,505	71.5	2,315	70.6	932	63.6	-7.9
English I	4,686	51.6	4,938	48.6	3,173	44.7	-6.9
English II	8,144	57.3	8,313	59.7	6,312	57.4	0.1
Biology	2,643	83.6	3,189	83.1	1,715	78.1	-5.5
U.S. History	6,083	92.4	7,064	93.5	5,646	93.6	1.2

Source: District STAAR EOC file dated June 4, 2019, september 6, 2018, and april 30, 2018. District Public Education Information Management System (PEIMS) demographic data file dated October 26, 2018. District CTE status file dated January 24, 2019.

Note: CTE = Career and technical education. STAAR EOC = State of Texas Assessments of Academic Readiness End-of-Course. N = Number of students tested. Approaches+ rates reflect percentage of students meeting or exceeding the standard for all administrations of the STAAR EOC exams. Non-CTE Coherent students include Non-CTE students and students who enrolled in CTE electives. *The criteria for identifying students in CTE programs was modified in 2018-19 to more closely align with state accountability data causing the number of students tested to be lower than previous years.

Special Population Analysis

A lower percentage of CTE coherent sequence special education, English learner, and economically disadvantaged students were at the Approaches+ standard than non-coherent sequence students on *Algebra I EOC*, *English I EOC*, and *Biology EOC* (Table 15). The largest difference in the performances of CTE coherent sequence and non-CTE coherent sequence students was on *Algebra I EOC* (-25.2 percentage point difference for special education students, -18.0 percentage point difference for economically English learners, -17.6 percentage point difference for economically disadvantaged students). Special education, English learner, and economically disadvantaged CTE coherent sequence students performed at a higher level of achievement than non-CTE students on the *U.S. History EOC* (8.9 percentage point difference for English learner students, 4.4 percentage point difference for economically disadvantaged students, 0.9 percentage point difference for special education students). Additionally, a higher percentage of English learner coherent sequence students were at Approaches+ than non-coherent sequence students on *English II EOC* (4.1 percentage point difference).

Table 15: Number Tested and Percentage of Special Education, English Learner, and Economically Disadvantaged High School Students at Approaches+: 2018-19

STAAR EOC	CTE Coherent		Non-CTE Coherent		Difference
	N	%	N	%	
Special Education Students					
Algebra I	216	33.8	967	59.0	-25.2
English I	523	16.3	1,223	22.8	-6.5
English II	661	18.2	695	29.9	-11.7
Biology	273	46.2	856	55.5	-9.3
U.S. History	443	65.9	337	65.0	0.9
English Learners					
Algebra I	435	63.7	4,082	81.7	-18.0
English I	1,678	38.4	5,622	45.7	-7.3
English II	2,763	42.9	2,680	38.8	4.1
Biology	816	71.6	3,818	78.4	-6.8
U.S. History	1,667	88.8	1,238	79.9	8.9
Economically Disadvantaged					
Algebra I	760	63.8	6,820	81.4	-17.6
English I	2,660	43.0	9,804	55.5	-12.5
English II	5,229	56.1	5,410	56.4	-0.3
Biology	1,375	76.8	7,193	82.8	-6.0
U.S. History	4,591	93.4	3,032	89.0	4.4

Source: District STAAR EOC file June 4, 2019. District Public Education Information Management System (PEIMS) demographic data file dated October 26, 2018. District CTE status file dated January 24, 2019.

Note: Data reflects the fall 2018 and spring 2019 STAAR EOC results including retests. CTE = Career and technical education. STAAR EOC = State of Texas Assessments of Academic Readiness End-of-Course. N = Number of students tested. Approaches+ rates reflect percentage of students meeting or exceeding the standard for all administrations of the STAAR EOC exams. Non-CTE Coherent students include Non-CTE students and students who enrolled in CTE electives.

What associate degrees were awarded to CTE Early College High School students in 2018?

Methodology

As noted previously, CTE ECHS students had the opportunity to earn associate degrees by the time of high school graduation. Associate degree data for graduating grade twelve ECHS students was provided by the Postsecondary Success Department on July 23, 2019 and merged with data from the district's student demographic database dated October 26, 2018. This data reflects associate degrees awarded in the 2018-19 school year. Associate degree data for 2017-18 was provided by the Public Education Information Management System (PEIMS) department on November 2, 2018.

Results

Graduating ECHS students were awarded 232 associate degrees during the 2018-19 school year (Table 16). There were 19 graduating grade 12 students attending summer courses who might receive an associate degree by the end of summer 2019. As noted previously, students were not required to graduate with an associate degree and had the opportunity to earn up to 60 hours of college credit to transfer to a four-year university. In addition, some associate degree plans require five years of study, one additional

year at a DCCCD partner campus after high school graduation. More graduating grade 12 ECHS students, including the first graduating class at Spruce ECHS, received an associate degree in the fall and spring of 2018-19 ($n = 232$) than ECHS students in the fall, spring, and summer terms of 2017-18 ($n = 197$) and 2016-17 ($n = 177$). More associate of science degrees were awarded to ECHS students ($n = 186$, 80.2%) than associate of arts ($n = 26$, 11.2%) or associate of applied science ($n = 20$, 8.6%) degrees.

Table 16: Associate Degrees Awarded to Early College High School Students: 2018-19

Degree Plan	Degree	N	%
Associate of Science	AS	186	80.2
Associate of Arts	AA	26	11.2
Advanced Manufacturing/Mechatronics Technology	AAS	8	3.4
Computer Aided Design and Drafting	AAS	6	2.6
Digital Media Technology	AAS	4	1.7
Air Conditioning and Refrigeration	AAS	2	0.9
All Degrees		232	100.0

Source: Early college high school program degree file dated July 23, 2019.

Note: AS = Associate of Science. AAS = Associate of Applied Science. AA = Associate of Arts.

Students at Garza received the highest number of associates degrees ($n = 79$, 34.1%) in 2018-19 followed by Samuell ($n = 52$, 22.4%), Gilliam ($n = 41$, 17.7%), Lassiter ($n = 40$, 17.2%), and Spruce ($n = 20$, 8.6%) (Table 17).

Table 17: Associate Degrees Awarded to ECHS Students by Campus: 2018-19

Campus	N	%
Garza	79	34.1
Samuell	52	22.4
Gilliam	41	17.7
Lassiter	40	17.2
Spruce	20	8.6

Source: Early college high school program degree file dated July 23, 2019.

Note: N = total number degrees awarded. ECHS = early college high school. Total is less than overall ECHS enrollment due to missing ECHS campus enrollment data ($n = 17$).

What were college enrollment rates for Dallas ISD CTE Students?

Methodology

Graduation data for students who graduated in the 2018 calendar year were obtained on July 9, 2019 from district files spanning from January 1, 2018 to December 31, 2018. Data for these students were merged with the previous year's PEIMS CTE status file dated July 24, 2018 to obtain the final CTE status for each student. Student data were matched with college enrollment data from the National Student Clearinghouse (NSC) as of June 27, 2019. There were 217 students enrolled at more than one college causing the total number of enrollments ($n = 8,193$) to exceed the total student count ($n = 8,126$). Refer to Appendix E for Dallas ISD 2018 graduate enrollment by college.

Results

Overall, 8,126 students graduated from Dallas ISD high schools in 2018. A total of 4,077 students (50.2 percent) enrolled in either a two-year or four-year college by the fall semester after graduating from Dallas ISD (Table 18). There were 217 students enrolled at more than one college causing the total number of enrollments ($n=8,193$) to exceed the total student count ($n=8,126$). CTE coherent sequence graduates enrolled at two-year colleges at a higher rate (28.4%) than CTE elective graduates (19.8%) or non-CTE graduates (16.9%). A higher percentage of non-CTE graduates enrolled at four-year colleges (36.9%) than CTE elective graduates (32.9%) or CTE coherent sequence graduates (23.3%).

Table 18: 2018 Dallas ISD Graduates College Enrollment

Enrollment Status	CTE Coherent Graduates		CTE Elective Graduates		Non-CTE Graduates		All DISD Graduates	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	<i>N</i>	%
Enrolled in Two-Year College	1,719	28.4	202	19.8	190	16.9	2,111	25.8
Enrolled in Four-Year College	1,409	23.3	335	32.9	414	36.9	2,158	26.3
Not Located*	2,925	48.3	481	47.2	518	46.2	3,924	47.9
Total	6,053	100.0	1,018	99.9	1,122	100.0	8,193	100.0

Source: District CTE status file dated January 24, 2019. Graduate data from district data files dated July 9, 2019. District CTE status file dated January 24, 2019. National Student Clearinghouse file dated June 27, 2019.

Note: *There was no data indicating enrollment in a post-secondary institution. Percentages may not sum to 100 due to rounding. There were 217 students enrolled at more than one college causing the total number of enrollments ($n=8,193$) to exceed the total student count ($n=8,126$).

A higher percentage of 2018 CTE coherent sequence graduates enrolled in a two-year college (28.4%) than 2017 graduates (25.7%) or 2016 graduates (24.5%) (Table 19). CTE coherent sequence students who graduated in 2018 enrolled in four-year colleges (23.3%) at a higher rate than 2016 graduates (21.0%) but at a lower rate than 2017 graduates (24.2%).

Table 19: 2016, 2017, and 2018 Dallas ISD CTE Coherent Sequence Graduates College Enrollment

Enrollment Status	2016		2017		2018	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Enrolled in Two-Year College	1,239	24.5	1,382	25.7	1,719	28.4
Enrolled in Four-Year College	1,061	21.0	1,302	24.2	1,409	23.3
Not Located*	2,745	54.4	2,692	50.1	2,925	48.3
Total	5,045	99.9	5,376	100.0	6,053	100.0

Source: Graduate data from district data files dated January 24, 2019, April 19, 2018, and April 11, 2017. District CTE status file dated January 24, 2019, July 24, 2018, July 24, 2017. National Student Clearinghouse file dated June 27, 2019.

Note: *There was not any data indicating enrollment in a post-secondary institution. Data only reflects the enrolment of CTE coherent sequence students. Percentages may not sum to 100 due to rounding.

SUMMARY AND RECOMMENDATIONS

Summary

A total of \$7,079,587 in funds supported the Dallas ISD CTE Department in 2018-19 including a \$2,771,669 Perkins grant. This represented a 6.0 percent increase in the CTE department total budget from 2017-18 (\$6,653,768). The district criteria for identifying students in CTE programs was modified in 2018-19 resulting in fewer CTE coherent sequence students in Dallas ISD in 2018-19 ($n = 15,989$) than 2017-18 ($n = 20,755$; Grimberg et al., 2018) or 2016-17 ($n = 19,507$; Turner et al., 2017). About a quarter (23.8%) of middle school students were enrolled in a CTE elective. Almost seventy-one percent (70.6%) of Dallas ISD high school students were enrolled in a CTE coherent sequence (39.3%) or a CTE elective (31.3%) in 2018-19. Middle school and high school students were about half male and female, and approximately 70 percent were Hispanic. There were 271 career pathways available in Dallas ISD in 2018-19, slightly less than offered in 2017-18 ($n = 275$).

A total of 10,464 students participated in 47 NAF academies. There were 1,285 more Dallas ISD students who participated in a NAF academy in 2018-19 compared to 2017-18 ($N = 9,179$). The academies with the largest enrollment were School of Science and Engineering Magnet Academy of Engineering (AOE) ($n = 496$), Woodrow Wilson High School AOE ($n = 479$) and H. Grady Spruce Academy of Finance (AOF) ($n = 475$). There were 952 Dallas ISD students who participated in five career institutes. The W.H. Adamson Institute of Automotive Technology had the largest student enrollment ($n = 370$), followed by the H. Grady Spruce Automotive Collision Refinishing and Repair Career Institute ($n = 325$). The L.G. Pinkston Institute of Welding had the lowest student enrollment ($n = 18$). The CTE courses that enrolled the highest numbers of Dallas ISD high school students were Business, Administration, and Management ($n = 8,326$); Information Technology ($n = 6,583$); Finance ($n = 5,115$); Arts, A/V Technology, and Communications ($n = 4,735$); and Health Science ($n = 4,724$). A higher number of females were enrolled in CTE courses nontraditional for their gender than males ($n = 3,213$ versus $n = 2,554$).

A total of 4,980 Dallas ISD students (including 2,917 CTE coherent sequence students, 58.6%) participated in 10,475 CTE dual credit courses during the 2018-19 school. Eighty-eight percent (88.3%) of CTE dual credit courses were completed. Overall, 3,529 Dallas ISD students took 5,038 industry-based certifications exams in 2018-19 earning 4,652 certifications (92.3 percent pass rate). Certifications identified by TEA for the A to F accountability system accounted for 4.6 percent ($n = 214$) of the total certifications earned. Certifications identified in the Perkins Effectiveness Report (PER) accounted for 34.9 percent ($n = 1,622$) of the total certifications earned.

College, career, and military readiness (CCMR) indicators were used to rate school districts in Texas. The 2019 Dallas ISD CCMR score for the 2018-19 school year was 86 out of 100 which was lower than Austin ISD (94), Houston ISD (91), and San Antonio ISD (90). Fifty-seven percent (57%) of 2018 Dallas ISD graduates were college, career, or military ready which was lower than Austin ISD (77%), Houston ISD (63%) and San Antonio ISD (61%). The 2018 average of all Dallas ISD Performance-Based

Monitoring Analysis System (PBMAS), CTE performance level indicators was 0.7 indicating that no interventions were required in 2018-19 (stage one out of four). The average of all performance level indicators on the 2018 PBMAS State Report was also 0.7. Dallas ISD received performance levels of three on the CTE Special Education *STAAR EOC* Passing Rate performance indicators in 2016, 2017, and 2018. While passing rates have increased on every CTE special education *STAAR EOC* exam over the past three years, the performances of special education CTE students were significantly lower than other CTE students.

The percentage of CTE coherent students who reached the Approaches+ standard was lower than non-CTE coherent sequence students (CTE elective and non-CTE) on *Algebra I EOC* (-16.8 percentage point difference), *English I* (-11.8 percentage point difference), *Biology EOC* (-5.1 percentage point difference), and *English II EOC* (-1.5 percentage point difference). A higher percentage of CTE coherent sequence students reached the Approaches+ standard than non-CTE coherent students on *U.S. History EOC* (4.0 percentage point difference). Between the 2016-17 and 2018-19 school years, the percentage of CTE students at Approaches+ decreased on *Algebra I EOC* (-7.9 percentage points), *English I EOC* (-6.9 percentage points), and *Biology EOC* (-5.5 percentage points). The percentage of CTE coherent sequence students at Approaches+ increased slightly on *U.S. History EOC* (1.2 percentage points) and *English II EOC* (0.1 percentage points). A lower percentage of CTE coherent sequence special education, English learner, and economically disadvantaged students were at the Approaches+ standard than non-coherent sequence students on *Algebra I EOC*, *English I EOC*, and *Biology EOC*.

Graduating CTE coherent sequence students in Early College High School (ECHS) programs were awarded 232 associate degrees during the 2018-19 school year. More graduating grade 12 ECHS students, including the first graduating class at Spruce ECHS, received an associate degree in the fall and spring of 2018-19 ($n = 232$) than ECHS students in the fall, spring, and summer terms of 2017-18 ($n = 197$) and 2016-17 ($n = 177$). More associate of science degrees were awarded to ECHS students ($n = 186$, 80.2%) than associate of arts ($n = 26$, 11.2%) or associate of applied science ($n = 20$, 8.6%) degrees. Students at Garza received the highest number of associates degrees ($n = 79$, 34.1%) in 2018-19 followed by Samuell ($n = 52$, 22.4%), Gilliam ($n = 41$, 17.7%), Lassiter ($n = 40$, 17.2%), and Spruce ($n = 20$, 8.6%). A total of 4,077 (50.2 percent) enrolled in either a two-year or four-year college by the fall semester after graduating from Dallas ISD in 2018 ($n = 8,126$). A higher percentage of 2018 CTE coherent sequence graduates enrolled in a two-year college (28.4%) than 2017 graduates (25.7%) or 2016 graduates (24.5%). CTE coherent sequence students who graduated in 2018 enrolled in four-year colleges (23.3%) at a higher rate than 2016 graduates (21.0%) but a lower rate than 2017 graduates (24.2%).

Recommendations

- **Communicate the importance of entering grade nine endorsement data with appropriate campus-based staff.** Evaluation reports in previous years included information about the number and types of endorsements selected by grade nine students throughout the district. Endorsement selection data helps stakeholders understand the fields and CTE programs chosen by students. Unfortunately, these data could not be used in this evaluation due to missing data. CTE Department staff should communicate the importance of entering endorsement selection data into PowerSchool with appropriate campus-based staff.
- **Examine the decrease in the number of industry-based certifications that were earned between the 2017-18 school year and the 2018-19 school year.** The number of reported industry-based certifications earned by Dallas ISD students in 2018-19 was 4,652. This represented a 9.1 percentage decrease in the number of certifications earned in the district from 2017-18 ($N = 5,117$). Program staff should explore explanations for this decline.
- **Work with the special education department to boost CTE special education academic achievement.** The performances of CTE special education students were significantly lower than other CTE students on *STAAR EOC* exams. This has resulted in the Dallas ISD PBMAS CTE program area receiving performance levels of three and four on the CTE Special Education *STAAR EOC* passing rate performance level indicators over the past three years. Addressing this gap would improve Dallas ISD performance on state accountability reports.

REFERENCES

- Grimberg, N. (August, 2019). 2017-18 Evaluation of Early College High Schools. Dallas, TX: Dallas Independent School District.
- Grimberg, N., Lorenz, A., & Mejan, M. Watson, C. Turner, H (October, 2018). 2017-18 Evaluation of Career and Technical Education. Dallas, TX: Dallas Independent School District.
- Turner, H., Sanguras, L., & Barton, L.M. (September, 2017). 2016-17 Evaluation of Career and Technical Education: Final Report. Dallas, TX: Dallas Independent School District.

APPENDICES

Appendix A

Appendix A: Career Pathways and Academies by Campus: 2018-19

Career and Technical Education (CTE) Pathways By Career Cluster and Endorsement	Business and Industry										Public Services					STEM
	Agriculture, Food & Natural Resources	Architecture & Construction	Arts, AV Technology & Communications	Business Management & Administration	Marketing	Finance	Hospitality & Tourism	Information Technology	Transportation, Distribution & Logistics	Manufacturing	Education & Training	Government & Public Administration	Health Science	Human Services	Law, Public Safety, Corrections & Security	Science, Technology, Engineering & Mathematics
Bryan Adams				*	*		*	* NAF-YOP					NAF		*	NAF
Adamson				*	*	NAF			*		*		NAF			
Carter			*	*	*	NAF		NAF							*	
City Lab		*														
Conrad						NAF	NAF	NAF					NAF			NAF
Hillcrest				*	*								NAF			NAF
IDEA						NAF		NAF-YOP								
Jefferson			*	*	*	NAF	NAF	*								NAF
Kimball				*	*		NAF								*	NAF
Lincoln			*	*	*		*									NAF
Madison				*				NAF								
Molina		*	*				*									
North Dallas			*			NAF		NAF								NAF
Obama																*
Pinkston		*		*				*	*	*					*	
Rangel				*												
Roosevelt				*			*						NAF			
Samuell		*						* NAF-YOP								
Sanders Public Service, Law												*			*	
School of Business/Management			*	*	*	*		*								
School of Health Professions							*						*			
School of Science and Engineering																NAF
Seagoville	*		*	*				*								
Skyline	*	*	*	*	*	NAF	NAF	NAF	*		*	*	NAF	*		NAF
Smith New Tech			*													
Sorrells Education/Social Services											*			*		
South Oak Cliff				*	*	*		NAF		*	*				*	NAF
Spruce			*	*	*	NAF		NAF	*	*						NAF
Sunset			*	*	*	NAF		*			*		NAF		*	
Washington for the PVA			*													
White				*	*	*	*	NAF			*			*		NAF
Wilmer-Hutchins		*		*	*	NAF	NAF	NAF	*							
Wilson						NAF	NAF									NAF

Source: CTE Department program document dated June 11, 2019.

Notes: NAF = National Academy Foundation. NAF (YOP) = National Academy Foundation Year of Planning, the NAF program will be implemented in the school year

Appendix B

Appendix B Table 1: 2018 and 2019 Dallas-Fort Worth-Arlington, Texas Nonfarm Employment by Industry

Industry	N Jobs Feb 2018	N Jobs Feb 2019	% Change
Leisure and Hospitality	373,500	392,300	5.0
Professional & Business Services	604,000	626,800	3.8
Mining, Logging, & Construction	213,900	221,000	3.3
Other Services	120,000	123,700	3.1
Trade, Transportation, & Utilities	769,200	790,600	2.8
Education and Health Services	447,500	459,200	2.6
Financial Activities	299,500	307,100	2.5
Manufacturing	274,500	281,100	2.4
Government	442,100	447,500	1.2
Information	83,900	81,300	-3.1
Total	3,628,100	3,730,600	2.8

Source: U.S. Bureau of Labor Statistics Southwest Information Office release dated March 28, 2019: https://www.bls.gov/regions/southwest/news-release/areaemployment_dallasfortworth.htm

Appendix B Table 2: 20 Largest Projected Dallas County Occupations 2016-2026

Occupation	N Employment 2016	N Predicted Employment 2026	% Change
Office and Administrative Support Occupations	324,393	355,727	9.7
Sales and Related Occupations	196,975	223,181	13.3
Food Preparation and Serving Related Occupations	138,187	161,502	16.9
Transportation and Material Moving Occupations	133,810	158,221	18.2
Business and Financial Operations Occupations	115,506	135,552	17.4
Healthcare Practitioners and Technical Occupations	88,323	112,410	27.3
Management Occupations	86,240	103,146	19.6
Information and Record Clerks	87,887	98,101	11.6
Computer and Mathematical Occupations	79,898	97,619	22.2
Retail Sales Workers	86,386	97,019	12.3
Construction and Extraction Occupations	78,646	95,695	21.7
Computer Occupations	77,019	93,715	21.7
Production Occupations	87,166	92,698	6.4
Food and Beverage Serving Workers	76,737	91,221	18.9
Education, Training, and Library Occupations	76,859	88,450	15.1
Installation, Maintenance, and Repair Occupations	70,787	82,352	16.3
Business Operations Specialists	67,354	78,631	16.7
Material Moving Workers	64,117	75,832	18.3
Other Office and Administrative Support Workers	70,785	75,024	6.0
Construction Trades Workers	61,566	74,937	21.7

Source: Texas Workforce Commission projected employment 2016-2026: Retrieved March 26, 2019

Appendix C

Appendix C Table 1: Middle School Student Characteristics: 2018-19

Characteristic	Non-CTE		CTE Elective		Total N
	n	%	n	%	
English Learner	11,462	46.8	3,708	48.5	15,170
TAG	4,420	18.1	1,604	21.0	6,024
Special Education	2,690	11.0	517	6.8	3,207
Econ Dis	21,464	87.7	6,757	88.4	28,221
Homeless	257	1.0	59	0.8	316
At-Risk	12,871	52.6	4,184	54.8	17,055
Gender					
Female	11,994	49.0	3,485	45.6	15,479
Male	12,487	51.0	4,156	54.4	16,643
Ethnicity					
Hispanic	17,338	70.8	5,772	75.5	23,110
African American	5,368	21.9	1,344	17.6	6,712
Asian	318	1.3	48	0.6	366
White	1,067	4.4	364	4.8	1,431
Other	390	1.6	113	1.5	503
Total	24,481	100.0	7,641	100.0	32,122

Source: District Public Education Information Management System (PEIMS) demographic data file dated October 26, 2018. District CTE status file dated January 24, 2019.

Note: CTE = Career and technical education. Econ Dis = economically disadvantaged. TAG = talented and gifted. Other = American Indian or Alaskan Native, Native Hawaiian or other Pacific Islander, two or more races, or unknown. Students cannot be classified as coherent sequence students until grade 9.

Appendix C Table 2: High School Student Characteristics: 2018-19

Characteristic	Non-CTE		CTE Elective		Coherent Sequence		Total N
	n	%	n	%	n	%	
English Learner	3,670	30.6	5,066	39.8	4,629	29.0	13,365
TAG	2,116	17.7	1,506	11.8	2,588	16.2	6,210
Special Education	1,284	10.7	1,013	8.0	1,197	7.5	3,494
Econ Dis	8,651	72.2	10,458	82.2	12,908	80.7	32,017
Homeless	103	0.9	105	0.8	97	0.6	305
At-Risk	4,761	39.8	6,269	49.2	6,299	39.4	17,329
Gender							
Female	6,468	54.0	6,123	48.1	7,823	48.9	20,414
Male	5,508	46.0	6,607	51.9	8,166	51.1	20,281
Ethnicity							
Hispanic	7,942	66.3	9,220	72.4	11,763	73.6	28,925
African American	2,483	20.7	2,749	21.6	3,413	21.3	8,645
Asian	233	1.9	120	0.9	227	1.4	580
White	1,043	8.7	420	3.3	439	2.7	1,902
Other	275	2.3	221	1.7	147	0.9	643
Total	11,976	100.0	12,730	100.0	15,989	100.0	40,695

Source: District Public Education Information Management System (PEIMS) demographic data file dated October 26, 2018. District CTE status file dated January 24, 2019.

Note: CTE = Career and technical education. Econ Dis = economically disadvantaged. TAG = talented and gifted. Other = American Indian or Alaskan Native, Native Hawaiian or other Pacific Islander, two or more races, or unknown. Students cannot be classified as coherent sequence students until grade 9. Percentages may not add up to 100 due to rounding.

Appendix D

Appendix D Table 1: STAAR Algebra I EOC Results by High School: 2018-19

Campus	Non-CTE Coherent				CTE Coherent			
	Tested <i>N</i>	Appr+ %	Meets+ %	Masters %	Tested <i>N</i>	Appr+ %	Meets+ %	Masters %
Adams	551	87.1	68.8	41.7	28	67.9	21.4	17.9
Adamson	387	88.1	57.4	33.1	12	75.0	25.0	0.0
Carter	308	72.1	38.3	16.2	21	42.9	4.8	4.8
CityLab	48	93.8	58.3	22.9	*	*	*	*
Conrad	267	85.4	58.6	29.2	35	65.7	37.1	22.9
Garza	33	100.0	100.0	97.0	-	-	-	-
Gilliam	72	94.4	77.8	37.5	-	-	-	-
Hillcrest	243	78.2	53.5	30.9	45	88.9	60.0	28.9
IDEA	70	81.4	58.6	30.0	9	55.6	22.2	11.1
Jefferson	381	86.6	67.1	42.5	60	76.7	58.3	33.3
Kimball	395	70.4	39.8	17.7	45	33.3	13.3	6.7
Lassiter	27	96.3	96.3	92.6	-	-	-	-
Lincoln	162	75.3	43.5	25.9	32	34.4	12.5	0.0
Madison	126	80.2	44.4	19.8	31	74.2	22.6	22.6
Molina	512	92.4	74.8	46.3	9	77.8	50.0	33.3
New Tech	39	94.9	71.8	48.7	*	*	*	*
North Dallas	293	78.2	40.3	16.4	31	61.3	19.4	3.2
Obama	*	*	*	*	-	-	-	-
Patton	43	30.2	7.0	0.0	*	*	*	*
Pinkston	214	70.1	33.3	21.5	11	36.4	27.3	18.2
Rangel	7	100.0	100.0	85.7	-	-	-	-
Roosevelt	208	68.8	36.8	15.4	17	47.1	5.9	0.0
Samuell	481	76.9	47.8	26.6	56	44.6	5.4	0.0
Seagoville HS	344	70.9	44.1	19.5	96	71.9	39.6	17.7
Skyline	856	78.2	51.3	26.9	167	66.5	26.9	9.6
SOC	301	83.7	52.5	24.6	20	55.0	10.5	10.0
Spruce	458	85.2	65.7	39.3	38	63.2	18.2	7.9
Sunset	484	89.3	73.3	50.6	18	50.0	38.9	22.2
Townview Business	-	-	-	-	41	100.0	100.0	97.6
Townview Education	23	100.0	100.0	87.0	*	*	*	*
Townview Health	28	100.0	100.0	96.4	-	-	-	-
Townview Law	*	*	*	*	27	100.0	96.3	88.9
Townview Sci & Eng	*	*	*	*	-	-	-	-
Townview TAG	10	100.0	100.0	100.0	-	-	-	-
Washington	83	91.6	63.9	39.8	-	-	-	-
White	522	61.3	32.8	14.0	34	26.5	5.9	2.9
Wilmer-Hutchins HS	239	71.1	37.1	13.0	25	44.0	8.0	4.0
Wilson	359	94.2	76.3	52.9	16	87.5	68.8	43.8
Total	8,581	80.4	54.8	31.2	932	63.6	32.5	19.2

Source: District STAAR EOC file dated June 4, 2019. District Public Education Information Management System (PEIMS) demographic data file dated October 26, 2018. District CTE status file dated January 24, 2019.

Note: Data reflects the fall 2018 and spring 2019 STAAR Algebra I EOC results including retests. CTE = Career and technical education. STAAR EOC = State of Texas Assessments of Academic Readiness End-of-Course. *N* = Number of students tested. Appr+ rates reflect percentage of students approaching or exceeding the standard. Meets+ rates reflect percentage of students meeting or exceeding the standard. Masters rates reflect percentage of students meeting the masters standard. Data only includes students enrolled in high schools. Non-CTE Coherent students include Non-CTE students and students who enrolled in CTE electives. "-" indicates that no assessments were taken. "*" indicates that five or fewer students were tested. Sci & Eng = Science and engineering. Svc = Service. IDEA = Innovation, Design and Entrepreneurship Academy; TAG = Talented and Gifted.

Appendix D Table 2: STAAR English I EOC Results by High School: 2018-19

Campus	Non-CTE Coherent				CTE Coherent			
	Tested <i>N</i>	Appr+ %	Meets+ %	Masters %	Tested <i>N</i>	Appr+ %	Meets+ %	Masters %
Adams	708	63.0	44.2	6.4	98	51.0	31.6	13.3
Adamson	556	57.9	37.1	2.5	112	48.2	13.4	0.0
Carter	383	46.2	27.8	4.4	95	42.1	13.8	1.1
CityLab	71	69.0	54.9	12.7	10	30.0	0.0	0.0
Conrad	374	48.4	34.1	4.0	159	31.4	13.8	2.5
Garza	116	100.0	98.3	41.4	1	100.0	100.0	0.0
Gilliam	105	94.3	82.9	21.0	-	-	-	-
Hillcrest	425	60.2	40.9	8.2	94	66.0	44.7	4.3
IDEA	75	70.7	54.7	5.3	37	29.7	16.2	0.0
Jefferson	526	40.5	25.8	2.3	173	63.0	42.8	6.4
Kimball	492	46.1	28.2	1.0	116	35.3	6.0	0.0
Lassiter	67	100.0	98.5	26.9	-	-	-	-
Lincoln	209	44.5	23.9	2.4	89	21.3	6.7	0.0
Madison	152	40.8	25.0	0.7	73	39.7	12.3	1.4
Molina	772	57.3	37.0	1.6	81	35.8	17.5	1.2
New Tech	54	79.6	66.7	9.3	21	28.6	9.5	0.0
North Dallas	339	49.6	31.1	2.4	133	24.8	6.8	0.0
Obama	44	100.0	95.5	18.2	-	-	-	-
Patton	94	26.6	11.7	0.0	6	33.3	0.0	0.0
Pinkston	317	45.1	30.4	4.7	66	33.3	18.2	1.5
Rangel	73	100.0	100.0	54.8	-	-	-	-
Roosevelt	317	41.6	22.6	1.3	48	31.3	14.6	0.0
Samuell	643	43.7	23.4	2.0	195	32.3	8.7	0.0
Seagoville HS	469	48.4	28.7	1.1	203	44.8	28.6	2.0
Skyline	1,183	61.5	44.6	4.3	354	48.6	21.5	2.0
SOC	412	41.0	22.7	2.9	100	25.0	6.1	1.0
Spruce	592	44.3	25.9	0.8	267	37.5	11.1	0.7
Sunset	655	53.9	37.2	2.9	118	28.8	10.2	0.8
Townview Business	-	-	-	-	149	100.0	97.3	30.2
Townview Education	62	98.4	91.9	17.7	*	*	*	*
Townview Health	141	100.0	99.3	38.3	*	*	*	*
Townview Law	*	*	*	*	98	100.0	95.9	37.8
Townview Sci & Eng	167	100.0	100.0	70.7	*	*	*	*
Townview TAG	142	100.0	100.0	79.6	-	-	-	-
Washington	211	96.7	91.9	41.7	-	-	-	-
White	699	55.8	36.3	3.1	92	28.3	9.8	0.0
Wilmer-Hutchins HS	308	51.0	33.6	3.6	105	37.1	7.6	0.0
Wilson	543	63.9	49.3	10.7	70	50.0	35.7	7.1
Total	12,498	56.5	40.0	7.4	3,173	44.7	23.9	4.5

Source: District STAAR EOC file dated June 4, 2019. District Public Education Information Management System (PEIMS) demographic data file dated October 26, 2018. District CTE status file dated January 24, 2019.

Note: Data reflects the fall 2018 and spring 2019 STAAR English I EOC results including retests. CTE = Career and technical education. STAAR EOC = State of Texas Assessments of Academic Readiness End-of-Course. *N* = Number of students tested. Appr+ rates reflect percentage of students approaching or exceeding the standard. Meets+ rates reflect percentage of students meeting or exceeding the standard. Masters rates reflect percentage of students meeting the masters standard. Data only includes students enrolled in high schools. Non-CTE Coherent students include Non-CTE students and students who enrolled in CTE electives. "-" indicates that no assessments were taken. "*" indicates that five or fewer students were tested. Sci & Eng = Science and engineering. Svc = Service. IDEA = Innovation, Design and Entrepreneurship Academy; TAG = Talented and Gifted.

Appendix D Table 3: STAAR English II EOC Results by High School: 2018-19

Campus	Non-CTE Coherent				CTE Coherent			
	Tested <i>N</i>	Appr+ %	Meets+ %	Masters %	Tested <i>N</i>	Appr+ %	Meets+ %	Masters %
Adams	515	58.3	38.0	2.5	215	54.0	33.2	1.4
Adamson	227	50.2	26.9	0.9	303	63.0	40.9	0.3
Carter	228	56.6	33.6	1.8	163	48.5	22.1	0.0
CityLab	35	94.3	82.9	8.6	41	73.2	61.0	0.0
Conrad	197	53.8	41.1	3.6	311	39.5	17.0	1.0
Garza	95	100.0	98.9	17.9	-	-	-	-
Gilliam	110	100.0	93.6	12.7	*	*	*	*
Hillcrest	321	62.6	39.9	2.2	101	57.4	29.0	0.0
IDEA	7	100.0	71.4	14.3	97	54.6	29.9	0.0
Jefferson	313	42.5	22.9	1.3	275	61.1	42.0	2.9
Kimball	285	48.8	28.3	0.7	234	53.8	25.3	0.0
Lassiter	66	100.0	95.5	16.7	*	*	*	*
Lincoln	73	50.7	19.4	5.5	159	47.2	30.8	1.3
Madison	57	47.4	24.6	0.0	125	56.8	36.8	2.4
Molina	445	52.6	31.2	2.5	280	67.1	46.4	2.1
New Tech	10	60.0	60.0	10.0	75	65.3	46.7	1.3
North Dallas	174	60.9	45.2	2.3	198	40.4	16.7	0.0
Obama	34	100.0	94.1	14.7	-	-	-	-
Patton	98	17.3	4.1	0.0	8	25.0	25.0	0.0
Pinkston	147	41.5	20.3	2.7	149	62.4	38.3	0.7
Rangel	52	100.0	100.0	51.9	*	*	*	*
Roosevelt	159	42.1	24.5	1.3	98	51.0	29.6	0.0
Samuell	393	48.1	28.1	2.5	382	39.5	18.7	1.0
Seagoville HS	274	47.1	26.5	0.7	295	54.2	33.9	2.0
Skyline	582	55.8	33.3	2.7	781	65.3	43.5	2.3
SOC	260	48.5	29.6	3.1	165	47.9	18.2	0.0
Spruce	191	42.9	17.8	2.6	519	45.1	18.2	1.7
Sunset	347	53.0	36.3	2.3	311	59.2	29.9	0.0
Townview Business	*	*	*	*	102	99.0	96.1	8.8
Townview Education	10	90.0	80.0	10.0	55	98.2	96.4	12.7
Townview Health	7	100.0	100.0	28.6	97	99.0	95.9	21.6
Townview Law	-	-	-	-	101	98.0	96.0	21.8
Townview Sci & Eng	284	100.0	99.6	47.9	*	*	*	*
Townview TAG	73	100.0	100.0	76.7	*	*	*	*
Washington	228	96.9	92.5	25.4	-	-	-	-
White	485	51.3	31.4	1.0	258	57.8	39.1	3.5
Wilmer-Hutchins HS	116	33.6	15.5	0.0	239	55.2	25.4	2.1
Wilson	428	75.7	58.6	10.5	166	69.3	50.3	6.0
Total	7,327	58.9	41.3	6.8	6,311	57.4	35.6	2.4

Source: District STAAR EOC file dated June 4, 2019. District Public Education Information Management System (PEIMS) demographic data file dated October 26, 2018. District CTE status file dated January 24, 2019.

Note: Data reflects the fall 2018 and spring 2019 STAAR English II EOC results including retests. CTE = Career and technical education. STAAR EOC = State of Texas Assessments of Academic Readiness End-of-Course. *N* = Number of students tested. Appr+ rates reflect percentage of students approaching or exceeding the standard. Meets+ rates reflect percentage of students meeting or exceeding the standard. Masters rates reflect percentage of students meeting the masters standard. Data only includes students enrolled in high schools. Non-CTE Coherent students include Non-CTE students and students who enrolled in CTE electives. "-" indicates that no assessments were taken. "*" indicates that five or fewer students were tested. Sci & Eng = Science and engineering. Svc = Service. IDEA = Innovation, Design and Entrepreneurship Academy; TAG = Talented and Gifted.

Appendix D Table 4: STAAR Biology EOC Results by High School: 2018-19

Campus	Non-CTE Coherent				CTE Coherent			
	Tested <i>N</i>	Appr+ %	Meets+ %	Masters %	Tested <i>N</i>	Appr+ %	Meets+ %	Masters %
Adams	620	86.3	57.5	15.5	46	80.4	65.2	50.0
Adamson	485	84.3	45.9	13.6	22	72.7	13.6	4.5
Carter	322	72.4	33.7	8.4	25	52.0	8.0	4.0
CityLab	69	87.0	56.5	14.5	*	*	*	*
Conrad	261	88.5	54.4	14.2	201	84.6	43.3	9.5
Garza	116	100.0	98.3	51.7	*	*	*	*
Gilliam	102	99.0	87.3	36.3	-	-	-	-
Hillcrest	321	89.1	59.2	17.8	63	90.5	65.1	15.9
IDEA	10	100.0	70.0	0.0	69	82.6	42.0	8.7
Jefferson	302	82.1	55.5	14.6	186	89.2	57.8	17.7
Kimball	179	84.4	45.7	9.5	28	35.7	3.6	0.0
Lassiter	70	98.6	95.7	47.1	*	*	*	*
Lincoln	167	72.5	35.2	4.8	35	42.9	5.7	0.0
Madison	145	70.3	30.3	4.8	39	56.4	17.9	5.1
Molina	627	84.5	52.5	10.4	19	68.4	27.8	26.3
New Tech	51	96.1	68.6	27.5	*	*	*	*
North Dallas	288	75.3	36.7	10.1	25	48.0	12.0	0.0
Obama	45	100.0	95.6	51.1	-	-	-	-
Patton	46	41.3	2.2	0.0	*	*	*	*
Pinkston	205	84.9	49.3	20.5	21	71.4	42.9	28.6
Rangel	73	100.0	98.6	69.9	-	-	-	-
Roosevelt	237	72.2	34.3	5.9	19	52.6	15.8	0.0
Samuell	548	76.3	41.7	9.9	49	51.0	6.3	2.0
Seagoville HS	355	76.6	45.0	11.5	103	84.5	60.2	19.4
Skyline	236	72.9	51.8	23.3	93	54.8	15.1	8.6
SOC	332	79.2	32.8	3.0	24	41.7	8.3	0.0
Spruce	511	73.6	34.3	6.7	83	57.8	9.0	3.6
Sunset	586	84.5	49.6	11.1	37	51.4	21.6	5.4
Townview Business	-	-	-	-	157	100.0	96.2	59.2
Townview Education	62	100.0	93.5	40.3	*	*	*	*
Townview Health	143	100.0	100.0	76.9	*	*	*	*
Townview Law	*	*	*	*	99	100.0	98.0	71.7
Townview Sci & Eng	167	100.0	100.0	91.0	*	*	*	*
Townview TAG	140	100.0	100.0	93.6	-	-	-	-
Washington	222	97.3	85.6	45.0	-	-	-	-
White	419	86.2	56.1	18.4	183	84.7	50.3	12.0
Wilmer-Hutchins HS	277	75.1	33.8	5.4	26	69.2	7.7	0.0
Wilson	553	89.0	73.5	38.7	42	97.6	81.0	50.0
Total	9,294	83.2	53.7	19.6	1,714	78.1	47.6	20.8

Source: District STAAR EOC file dated June 4, 2019. District Public Education Information Management System (PEIMS) demographic data file dated October 26, 2018. District CTE status file dated January 24, 2019.

Note: Data reflects the fall 2018 and spring 2019 STAAR Biology EOC results including retests. CTE = Career and technical education. STAAR EOC = State of Texas Assessments of Academic Readiness End-of-Course. *N* = Number of students tested. Appr+ rates reflect percentage of students approaching or exceeding the standard. Meets+ rates reflect percentage of students meeting or exceeding the standard. Masters rates reflect percentage of students meeting the masters standard. Data only includes students enrolled in high schools. Non-CTE Coherent students include Non-CTE students and students who enrolled in CTE electives. “-” indicates that no assessments were taken. “*” indicates that five or fewer students were tested. Sci & Eng = Science and engineering. Svc = Service. IDEA = Innovation, Design and Entrepreneurship Academy; TAG = Talented and Gifted.

Appendix D Table 5: STAAR U.S. History EOC Results by High School: 2018-19

Campus	Non-CTE Coherent				CTE Coherent			
	Tested <i>N</i>	Appr+ %	Meets+ %	Masters %	Tested <i>N</i>	Appr+ %	Meets+ %	Masters %
Adams	262	94.7	72.9	37.4	225	96.9	82.6	36.4
Adamson	126	86.5	65.9	32.5	338	95.3	71.8	38.5
Carter	129	95.3	69.4	33.3	144	91.7	65.0	22.2
Conrad	112	89.3	63.8	37.5	227	91.6	63.0	32.2
Garza	104	100.0	99.0	91.3	6	100.0	100.0	66.7
Gilliam	78	98.7	83.3	41.0	-	-	-	-
Hillcrest	240	93.8	73.3	34.6	119	89.9	79.0	40.3
IDEA	*	*	*	*	80	92.5	75.0	51.2
Jefferson	162	74.7	46.2	13.6	231	92.6	74.8	42.9
Kimball	137	90.5	64.2	32.8	293	94.2	69.2	31.7
Lassiter	53	100.0	100.0	100.0	-	-	-	-
Lincoln	27	88.9	56.0	25.9	94	84.0	45.7	12.8
Madison	24	87.5	62.5	8.3	102	86.3	46.1	12.7
Molina	454	88.3	59.8	24.7	238	95.4	72.7	35.7
New Tech	10	90.0	80.0	20.0	118	92.4	66.9	34.7
North Dallas	37	91.9	68.8	27.0	191	90.1	68.8	31.4
Obama	27	100.0	100.0	88.9	*	*	*	*
Patton	79	55.7	12.7	1.3	9	55.6	22.2	11.1
Pinkston	75	89.3	51.4	18.7	125	98.4	79.2	43.2
Rangel	55	100.0	100.0	81.8	3	100.0	100.0	100.0
Roosevelt	102	85.3	40.6	13.7	65	81.5	43.8	10.8
Samuell	210	91.4	72.8	42.4	231	93.1	70.4	34.6
Seagoville HS	127	85.0	66.1	34.6	249	94.0	70.2	39.0
Skyline	268	82.1	61.2	41.0	787	95.7	80.9	45.2
SOC	154	89.0	62.1	24.7	129	91.5	50.0	20.9
Spruce	110	81.8	61.3	24.5	309	92.2	66.1	37.5
Sunset	149	90.6	58.9	28.9	293	92.5	70.0	34.8
Townview Business	-	-	-	-	116	100.0	100.0	81.0
Townview Education	*	*	*	*	75	100.0	97.3	64.0
Townview Health	*	*	*	*	123	100.0	97.6	80.5
Townview Law	-	-	-	-	107	100.0	99.1	77.6
Townview Sci & Eng	50	100.0	100.0	98.0	45	100.0	100.0	100.0
Townview TAG	67	100.0	100.0	98.5	*	*	*	*
Washington	276	99.3	96.0	71.7	-	-	-	-
White	265	87.2	61.1	36.2	262	91.2	73.5	40.8
Wilmer-Hutchins HS	72	79.2	43.5	8.3	147	89.8	51.7	20.4
Wilson	281	91.8	76.8	55.5	161	95.0	80.9	54.0
Total	4,325	89.6	68.3	39.5	5,646	93.6	72.9	39.9

Source: District STAAR EOC file dated June 4, 2019. District Public Education Information Management System (PEIMS) demographic data file dated October 26, 2018. District CTE status file dated January 24, 2019.

Note: Data reflects the fall 2018 and spring 2019 STAAR History EOC results including retests. CTE = Career and technical education. STAAR EOC = State of Texas Assessments of Academic Readiness End-of-Course. *N* = Number of students tested. Appr+ rates reflect percentage of students approaching or exceeding the standard. Meets+ rates reflect percentage of students meeting or exceeding the standard. Masters rates reflect percentage of students meeting the masters standard. Data only includes students enrolled in high schools. Non-CTE Coherent students include Non-CTE students and students who enrolled in CTE electives. "-" indicates that no assessments were taken. "*" indicates that five or fewer students were tested. Sci & Eng = Science and engineering. Svc = Service. IDEA = Innovation, Design and Entrepreneurship Academy; TAG = Talented and Gifted.

Appendix D Table 6: Special Education High School Student STAAR EOC Results: 2018-19

STAAR EOC	Non-CTE Coherent				CTE Coherent			
	Tested N	Appr+ %	Meets+ %	Masters %	Tested N	Appr+ %	Meets+ %	Masters %
Algebra I	967	59.0	21.7	14.4	216	33.8	4.2	3.2
English I	1,223	22.8	4.5	4.4	523	16.3	4.8	1.0
English II	695	29.9	11.4	7.5	661	18.2	5.0	2.9
Biology	856	55.5	11.1	6.1	273	46.2	7.7	3.3
US History	337	65.0	18.7	14.5	443	65.9	25.3	11.3

Source: District STAAR EOC file dated June 4, 2019. District Public Education Information Management System (PEIMS) demographic data file dated October 26, 2018. District CTE status file dated January 24, 2019.

Note: Data reflects the fall 2018 and spring 2019 STAAR EOC results including retests. CTE = Career and technical education. STAAR EOC = State of Texas Assessments of Academic Readiness End-of-Course. N = Number of students tested. Appr+ rates reflect percentage of students approaching or exceeding the standard. Meets+ rates reflect percentage of students meeting or exceeding the standard. Masters rates reflect percentage of students meeting the masters standard. Non-CTE Coherent students include Non-CTE students and students who enrolled in CTE electives.

Appendix D Table 7: English Learner High School Student STAAR EOC Results: 2018-19

STAAR EOC	Non-CTE Coherent				CTE Coherent			
	Tested N	Appr+ %	Meets+ %	Masters %	Tested N	Appr+ %	Meets+ %	Masters %
Algebra I	4,082	81.7	55.4	31.4	435	63.7	31.7	17.2
English I	5,622	45.7	27.3	1.8	1,678	38.4	15.1	1.2
English II	2,680	38.8	20.0	1.3	2,763	42.9	20.2	0.9
Biology	3,818	78.4	42.7	10.1	816	71.6	31.5	9.6
US History	1,238	79.9	46.0	17.6	1,667	88.8	57.2	22.9

Source: District STAAR EOC file dated June 4, 2019. District Public Education Information Management System (PEIMS) demographic data file dated October 26, 2018. District CTE status file dated January 24, 2019.

Note: Data reflects the fall 2018 and spring 2019 STAAR EOC results including retests. CTE = Career and technical education. STAAR EOC = State of Texas Assessments of Academic Readiness End-of-Course. N = Number of students tested. Appr+ rates reflect percentage of students approaching or exceeding the standard. Meets+ rates reflect percentage of students meeting or exceeding the standard. Masters rates reflect percentage of students meeting the masters standard. Non-CTE Coherent students include Non-CTE students and students who enrolled in CTE electives.

Appendix D Table 8: Economically Disadvantaged High School Student STAAR EOC Results: 2018-19

STAAR EOC	Non-CTE Coherent				CTE Coherent			
	Tested N	Appr+ %	Meets+ %	Masters %	Tested N	Appr+ %	Meets+ %	Masters %
Algebra I	6,820	81.4	54.9	31.9	760	63.8	32.4	18.7
English I	9,804	55.5	37.8	5.5	2,660	43.0	21.6	3.8
English II	5,410	56.4	36.7	4.6	5,229	56.1	33.5	1.9
Biology	7,193	82.8	50.5	16.8	1,375	76.8	44.4	18.3
US History	3,032	89.0	64.4	35.8	4,591	93.4	71.1	38.1

Source: District STAAR EOC file dated June 4, 2019. District Public Education Information Management System (PEIMS) demographic data file dated October 26, 2018. District CTE status file dated January 24, 2019.

Note: Data reflects the fall 2018 and spring 2019 STAAR EOC results including retests. CTE = Career and technical education. STAAR EOC = State of Texas Assessments of Academic Readiness End-of-Course. N = Number of students tested. Appr+ rates reflect percentage of students approaching or exceeding the standard. Meets+ rates reflect percentage of students meeting or exceeding the standard. Masters rates reflect percentage of students meeting the masters standard. Non-CTE Coherent students include Non-CTE students and students who enrolled in CTE electives.

Appendix E

Appendix E Table 1: Top 25 2-Year Colleges of 2018 Dallas ISD Graduates by Enrollment and CTE Status

College	CTE Coherent		CTE Elective		Non-CTE		Total N
	n	%	n	%	n	%	
Eastfield College - DCCCD	457	86.2	36	6.8	37	7.0	530
El Centro College - DCCCD	382	83.8	42	9.2	32	7.0	456
Mountain View College - DCCCD	327	78.4	46	11.0	44	10.6	417
Brookhaven College - DCCCD	133	72.7	30	16.4	20	10.9	183
Richland College - DCCCD	141	77.5	19	10.4	22	12.1	182
Cedar Valley College - DCCCD	104	86.7	8	6.7	8	6.7	120
North Lake College - DCCCD	28	80.0	2	5.7	5	14.3	35
Paris Junior College	29	85.3	4	11.8	1	2.9	34
Navarro College	15	71.4	2	9.5	4	19.0	21
North Central Texas College	11	84.6	0	0.0	2	15.4	13
Tyler Junior College	6	66.7	2	22.2	1	11.1	9
Austin Community College	3	50.0	2	33.3	1	16.7	6
Blinn College	5	83.3	1	16.7	0	0.0	6
Hill College	3	60.0	0	0.0	2	40.0	5
Trinity Valley Community College	5	100.0	0	0.0	0	0.0	5
Blinn College - Bryan Campus	3	100.0	0	0.0	0	0.0	3
Collin County Community College	1	33.3	2	66.7	0	0.0	3
Ranger College	3	100.0	0	0.0	0	0.0	3
Rose State College	1	33.3	0	0.0	2	66.7	3
Western Texas College	3	100.0	0	0.0	0	0.0	3
Cisco College	2	100.0	0	0.0	0	0.0	2
Clarendon College	2	100.0	0	0.0	0	0.0	2
Mount San Antonio College	2	100.0	0	0.0	0	0.0	2
Mt. Hood Community College	2	100.0	0	0.0	0	0.0	2
New Mexico Military Institute	1	50.0	0	0.0	1	50.0	2
Other Colleges	50	39.1	6	4.7	8	6.3	64
2-Year Total	1,719	81.4	202	9.6	190	9.0	2,111

Source: District CTE status file dated January 24, 2019. Graduate data from district data files dated July 9, 2019. National Student Clearinghouse file dated June 27, 2019.

Note: CTE = Career and technical education. DCCCD = Dallas County Community College District. CTE Coherent = Students who were enrolled in a coherent sequence of CTE courses. CTE Elective = Students who enrolled in one or more CTE courses that were not part of a coherent sequence. Non-CTE = Students who did not enroll in any CTE courses in high school.

Appendix E Table 2: Top 25 4-Year Colleges of 2018 Dallas ISD Graduates by Enrollment and CTE Status

College	CTE Coherent		CTE Elective		Non-CTE		Total <i>N</i>
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%	
University of North Texas	123	64.4	32	16.8	36	18.8	191
University of North Texas At Dallas	123	68	39	21.5	19	10.5	181
Texas Woman's University	102	72.9	22	15.7	16	11.4	140
University of Texas Arlington	92	68.7	21	15.7	21	15.7	134
University of Texas At Dallas	88	73.3	17	14.2	15	12.5	120
Texas Southern University	91	85.8	10	9.4	5	4.7	106
University of Texas At Austin	48	47.5	21	20.8	32	31.7	101
Texas A&M University - Commerce	85	85	6	6	9	9	100
Texas A&M University	47	59.5	19	24.1	13	16.5	79
Prairie View Texas A&M University	55	83.3	5	7.6	6	9.1	66
Texas College	27	75	3	8.3	6	16.7	36
Texas State University - San Marcos	18	54.5	6	18.2	9	27.3	33
Jarvis Christian College	29	93.5	0	0	2	6.5	31
Southern Methodist University	13	44.8	4	13.8	12	41.4	29
University of Houston	21	84	1	4	3	12	25
Midwestern State University	20	95.2	1	4.8	0	0	21
Sam Houston State University	14	70	3	15	3	15	20
Stephen F. Austin State University	11	61.1	3	16.7	4	22.2	18
Texas Christian University	12	66.7	2	11.1	4	22.2	18
University of Arkansas At Fayetteville	6	37.5	2	12.5	8	50	16
University of Texas - San Antonio	9	60	3	20	3	20	15
Huston-Tillotson University	10	71.4	2	14.3	2	14.3	14
University of Oklahoma	5	35.7	3	21.4	6	42.9	14
Paul Quinn College	10	83.3	1	8.3	1	8.3	12
Texas Tech University	8	72.7	2	18.2	1	9.1	11
Other Colleges	342	27.3	107	8.5	178	14.2	627
Total	1,409	65.3	335	15.5	414	19.2	2,158

Source: District CTE status file dated January 24, 2019. Graduate data from district data files dated July 9, 2019. National Student Clearinghouse file dated June 27, 2019.

Note: CTE = Career and technical education. CTE Coherent = Students who were enrolled in a coherent sequence of CTE courses. CTE Elective = Students who enrolled in one or more CTE courses that were not part of a coherent sequence. Non-CTE = Students who did not enroll in any CTE courses in high school.

Appendix F

Appendix F: Dallas ISD Earned Industry-Based Certifications by Certification Classification: 2018-19

Certificate Name	A-F		PER		All Certificates	
	n	%	n	%	n	%
AAFCS - Preprofessional Cert Education Fundamentals	0	0.0	9	0.6	9	0.2
Adobe Certified Associate Dreamweaver	0	0.0	51	3.1	51	1.1
Adobe Certified Associate Photoshop	0	0.0	7	0.4	7	0.2
Adobe InDesign CS6	0	0.0	0	0.0	4	0.1
AICPA/NAF Recognition Program	0	0.0	0	0.0	21	0.5
API Welding	3	1.4	3	0.2	3	0.1
ASE Automobile Service Technology	3	1.4	3	0.2	3	0.1
ASE/NATEF Auto Maint and Light Repair (G1)	10	4.7	10	0.6	10	0.2
ASE/NATEF Auto/Lt Truck (A1) Engine Repair	9	4.2	9	0.6	9	0.2
ASE/NATEF Auto/Lt Truck (A2) Auto Trans	1	0.5	1	0.1	1	0.0
ASE/NATEF Auto/Lt Truck (A3) Manual Drive	1	0.5	1	0.1	1	0.0
ASE/NATEF Auto/Lt Truck (A4) Suspension	4	1.9	4	0.2	4	0.1
ASE/NATEF Auto/Lt Truck (A5) Brakes	7	3.3	7	0.4	7	0.2
ASE/NATEF Auto/Lt Truck (A6) Electrical	5	2.3	5	0.3	5	0.1
ASE/NATEF Auto/Lt Truck (A7) HVAC	5	2.3	5	0.3	5	0.1
ASE/NATEF Auto/Lt Truck (A8) Engine Perf	4	1.9	4	0.2	4	0.1
AutoCAD Certified Professional	0	0.0	16	1.0	16	0.3
Autodesk Inventor Certified User	0	0.0	18	1.1	18	0.4
Autodesk Revit Architecture Certified User	0	0.0	3	0.2	3	0.1
AWS D9.1 Sheet Metal Welding	21	9.8	21	1.3	21	0.5
Basic Life Support for Healthcare Providers	0	0.0	0	0.0	235	5.1
Certified Personal Trainer (NASM)	0	0.0	0	0.0	6	0.1
Cosmetology Operator License	15	7.0	15	0.9	15	0.3
Electrocardiogram Technician (EKG or ECG)	40	18.7	0	0.0	40	0.9
EVERFI - Digital Literacy	0	0.0	0	0.0	24	0.5
EVERFI Financial Literacy	0	0.0	0	0.0	165	3.5
EVERFI Future Goals	0	0.0	0	0.0	14	0.3
EVERFI Ignition Certification	0	0.0	0	0.0	90	1.9
EVERFI PILOT MarketWorks	0	0.0	0	0.0	6	0.1
EVERFI Vault	0	0.0	0	0.0	152	3.3
EVERFI/NFTE Venture - Entrepreneurial Expedition	0	0.0	0	0.0	78	1.7
Everfi: All Honor Code (Bullying Prevention)	0	0.0	0	0.0	17	0.4
Everfi: Future Smart	0	0.0	0	0.0	35	0.8
Everfi: Say Something Digital	0	0.0	0	0.0	6	0.1
Everifi: Character Playbook	0	0.0	0	0.0	18	0.4
Heartsaver First Aid CPR AED	0	0.0	0	0.0	78	1.7
iCEV - Principles of Livestock Selection & Evaluation Certification	0	0.0	0	0.0	1	0.0
iCEV - Professional Communications Certification - Endorsed by Southwest Airlines	0	0.0	0	0.0	23	0.5
iCEV -Equine Management & Evaluation Certification	0	0.0	0	0.0	14	0.3
Microsoft Office Expert - Word	32	15.0	0	0.0	32	0.7

table continues

Table (Continued)

Certificate Name	A-F		PER		All Certificates	
	n	%	n	%	n	%
Microsoft Office Specialist (MOS) Access (Specialist)	0	0.0	11	0.7	11	0.2
Microsoft Office Specialist (MOS) Excel (Specialist)	0	0.0	174	10.7	174	3.7
Microsoft Office Specialist (MOS) Outlook (Specialist)	0	0.0	0	0.0	4	0.1
Microsoft Office Specialist (MOS) PowerPoint (Specialist)	0	0.0	355	21.9	355	7.6
Microsoft Office Specialist (MOS) Word (Specialist)	0	0.0	796	49.1	796	17.1
MicrosoftTechnology Associate (MTA) - HTML5 App Development Fundamentals	3	1.4	3	0.2	3	0.1
MicrosoftTechnology Associate (MTA) - HTML5 App Development Fundamentals	1	0.5	1	0.1	1	0.0
NAFTrack Certification	0	0.0	0	0.0	575	12.4
Nitrous Oxide Monitoring Certification	0	0.0	0	0.0	19	0.4
OSHA CareerSafe 10-Hours Construction Safety Industry Training	0	0.0	0	0.0	6	0.1
OSHA CareerSafe General Industry Training	0	0.0	0	0.0	561	12.1
OSHA Fork Lift	0	0.0	0	0.0	333	7.2
Patient Care Technician (PCT)	0	0.0	0	0.0	35	0.8
Phlebotomy Technician (CPT)	50	23.4	50	3.1	50	1.1
PMIEF Fundamentals of Project Management	0	0.0	0	0.0	36	0.8
Powered Industrial Trucks (PIT)	0	0.0	0	0.0	45	1.0
Registered Dental Assistant (RDA)	0	0.0	19	1.2	19	0.4
ServSafe Food Handler	0	0.0	0	0.0	132	2.8
ServSafe Food Handler Spanish	0	0.0	0	0.0	4	0.1
ServSafe Manager	0	0.0	0	0.0	20	0.4
TestOut Network Pro	0	0.0	0	0.0	29	0.6
TestOut PC Pro	0	0.0	0	0.0	13	0.3
Texas Alcoholic Beverage Commission Seller/Server Certification	0	0.0	0	0.0	3	0.1
Texas Boater Certificate	0	0.0	0	0.0	36	0.8
Texas Hunter Safety Certificate	0	0.0	0	0.0	51	1.1
Texas State Floral Association Level 1	0	0.0	14	0.9	14	0.3
Texas State Floral Association Level 2	0	0.0	7	0.4	7	0.2
TYPING.COM CERTIFICATION	0	0.0	0	0.0	9	0.2
Valvoline Motor Oil Certification	0	0.0	0	0.0	15	0.3
Valvoline People Skills 101	0	0.0	0	0.0	11	0.2
Valvoline Resumes and Interviewing 101	0	0.0	0	0.0	10	0.2
Volunteer Income Tax Assistance Certification (IRS)	0	0.0	0	0.0	24	0.5
Total	214	100.0	1,622	100.0	4,652	100.0

Source: Certification data provided by the CTE Department: July 23, 2019.

Note: CTE = Career and technical education. A-F = Certifications identified by the TEA for the A to F accountability system. PER = Perkins Effectiveness Report, certifications identified as employable. Certifications could be categorized into both A-F and PER. Percentages may not add up to 100 due to rounding.