



Career and Technical Education

Pathways for Postsecondary and Employment Readiness

Prepared by the Pinellas Education Foundation

Supported by the Foundation for a Healthy St. Petersburg

**RESEARCH
AND DATA**
FOR HEALTH EQUITY



Foundation for a
Healthy St. Petersburg

April 2019



Pinellas Technical College

High-quality programming with occupation specific certification
Low-cost for students
Internships/Apprenticeships
Completion within 10-16 months with accelerated earning potential



High School

High School Diploma
Career Academies and Pathways
Industry Certifications
Internships
Employment and Postsecondary readiness skills



Middle School

STEM Academies
Career Exploration Courses
Industry Certifications
Pathway planning



Elementary School

STEM Academies
Enrichment and classroom embedded opportunities
Industry Certifications

Career and Technical Education in Pinellas County Schools

By 2020, nearly two-thirds of jobs will require postsecondary education or training¹ and nearly 60% of employers nationally report that high school is not preparing students for college or careers². Career and Technical Education can bridge that gap. A few aspects of Pinellas County Schools' Career and Technical Education are highlighted in this report: high school CAPE (Career and Professional Education) academies, industry certifications offered in high school, and career and technical education opportunities at Pinellas Technical College.

In Pinellas County Schools, there are 46 CAPE academies in 17 high schools. CAPE academies follow a rigorous curriculum organized around a theme and prepare students for careers and postsecondary education. The number of students participating in CAPE academies has increased over the last three graduating classes **from 38% to 44% of all students**. CAPE Academy enrollment is diverse.

Students can earn industry certification useful to their future careers in CAPE academies, career academies, and other programs. Across all programs, in three years, **the number of students earning industry certifications has almost doubled** (1,070 to 1,949 students); the average number of certifications per student is also increasing. However, comparatively fewer Hispanic students and Black students earned an industry certification compared to White students. There is an opportunity to work with the community to increase the number of Hispanic and Black students who earn an industry certification.

The importance of Career and Technical Education doesn't end at graduation. Pinellas Technical College offers short-term programs leading to middle- and high-wage, in-demand jobs, meaning that students can be in a career within a year. At Pinellas Technical College, **85% of students complete their program and 96% are placed in jobs**. Pinellas Technical College serves the community; however, by race and ethnicity student enrollment is more diverse than in the county as a whole. Fifteen percent of enrollees are under 20; 19 to 24 is the most common age range.

Pinellas Education Foundation partners with Pinellas County Schools to promote Career and Technical Education. The foundation was instrumental in creating the Career Education Master Plan that called for greater participation in career academies and in earning industry certifications. Pinellas Education Foundation was also a partner in preparing this report that provides more information on Career and Technical Education in Pinellas County high schools and Pinellas Technical College.

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Introduction

Many jobs require more than a high school diploma but less than a college degree. By 2020, nearly two-thirds of jobs will require postsecondary education or training³ and nearly 60% of employers reported that high school is not preparing students for college or careers⁴. The right Career and Technical Education program can prepare a student for a career. Research demonstrates that career academies can increase wages and that pathways of connected courses leading to an industry credential are the most valuable: Taking one or two courses isn't as effective⁵. The best Career and Technical Education programs have student cohorts in career-themed course sequences; include rigorous, college-preparatory academics; include opportunities to earn college credits and industry-recognized credentials; and include meaningful work-based learning that leads to jobs or industry credentials⁶. In 2007, the Florida Legislature passed the Career and Professional Education (CAPE) Act as an avenue to improve middle and high school student career readiness, to expose students to varied career-themed coursework, and to reinforce business, economic and education partnerships. This legislation created a focus on CAPE academies in local districts.

This report provides information on Pinellas County's CAPE academies, industry certifications earned in high school (which may be earned in any type of academy), and opportunities for career and technical education after high school.

CAPE Academies

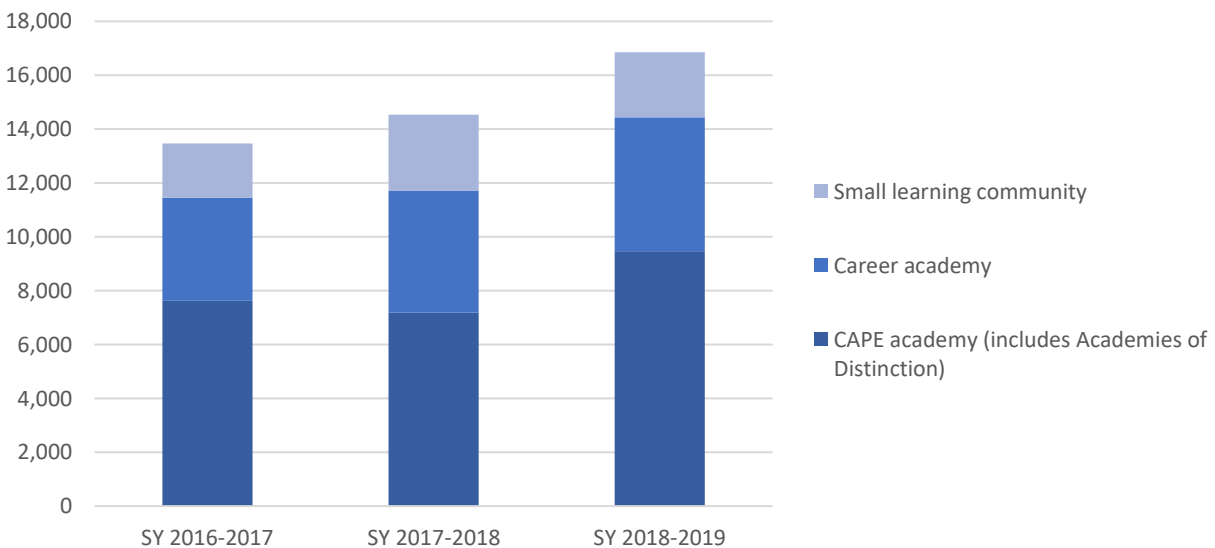
Pinellas County Schools offers four types of career and technical academies. Academies teach students basic skills within the context of particular academic and vocational discipline to engage them in their field of interest.

- Career academies are designed as four-year programs that blend a student's required academic courses with the career technical program of the academy. Career academies follow a rigorous curriculum organized around a theme, offering industry certifications and preparing students for careers and postsecondary education (e.g., college).
- CAPE academies are career academies that meet all rigorous characteristics established by the Florida Career and Professional Education Act.
- Academies of Distinction are exemplary CAPE academies that have achieved the highest ratings in all categories of the Stavros Career Education Board Rubric.
- A themed program is not yet organized in an academy structure but operates in a small learning community and may include some elements of a career academy. Some of these themed programs are working towards CAPE certification.

In addition, Pinellas County also offers career and technical education programs that offer industry certifications which are not academies but may be a single class or a series of classes.

Figure 1 provides the number of high school students participating in each type of academy for the last three school years; this includes 9th, 10th, 11th, and 12th graders. As shown, the number of students participating in an academy has grown by 25% since the 2016-2017 school year.

Figure 1: Number of high school students participating in an academy, by school year



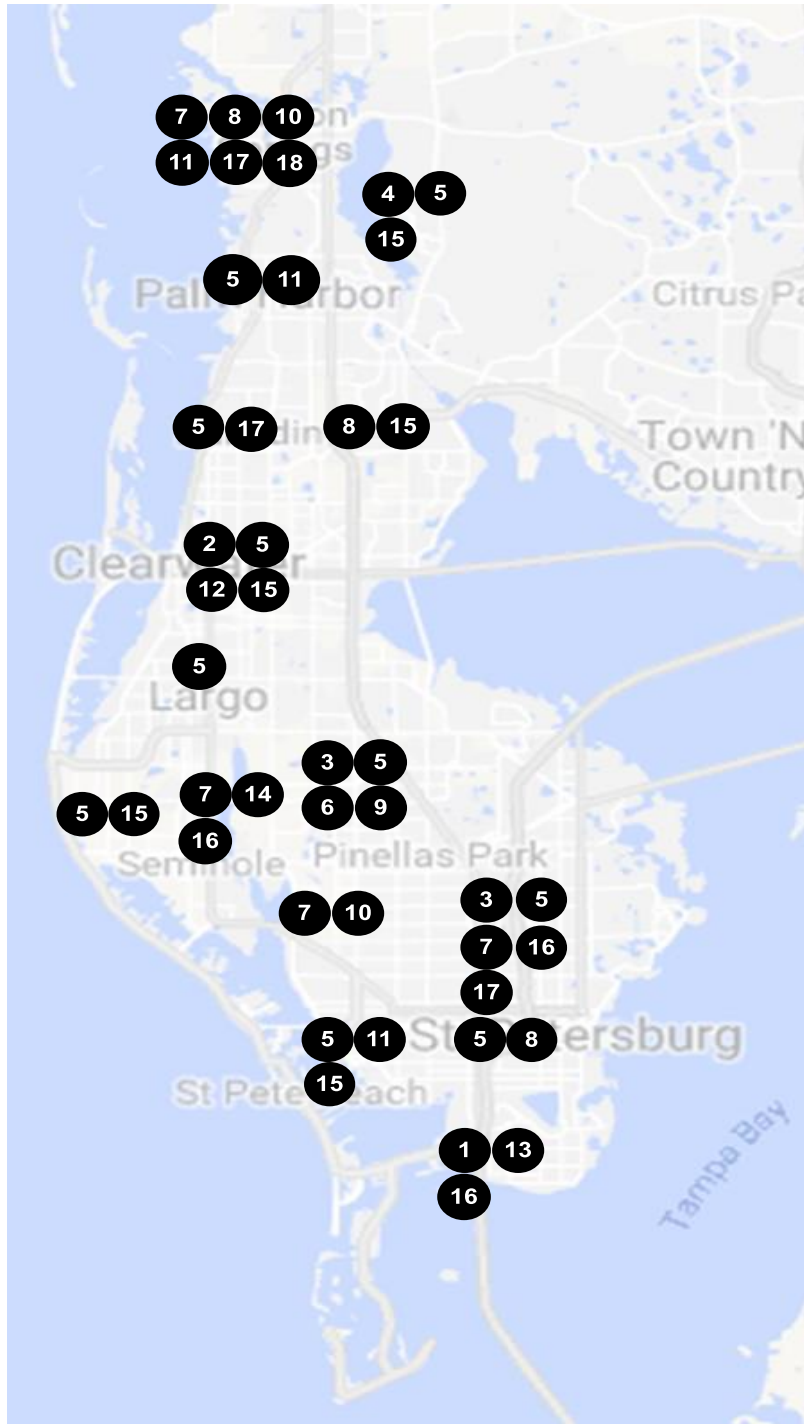
Students who participate in CAPE academies must apply for admission. In addition, some CAPE academies have application areas where students must live in order to apply for certain programs, usually based on the schools that students are zoned to attend. For some academies, the district provides academic profiles to provide information about the students who typically perform well in these programs. They are used to help families self-select into academically rigorous programs based on a student's individual needs and achievements. Within academies, however, there may be different tracks based on students' academics so that students can participate in a particular academy at a variety of levels. (See the Pinellas County Schools website for more information¹.) In order to increase access to academies, the district provides transportation for students who live more than two miles from the school at which their CAPE academy exists.

Figure 2 provides the locations of CAPE academies. There are 46 CAPE academies across 17 high schools. Each number represents an academy at that high school location and the numbers represent a type of industry. For example, Lakewood High School is just north of the Sunshine Skyway and has three academies: the Academy for Aquatic Management Systems and Environmental Technology

¹ <https://www.pcsb.org/Page/638>

(agribusiness), the Center for Journalism and Multimedia (journalism), and the Center for Advanced Technologies (technology). For example, the Center for Advanced Technologies has a recommended academic profile. See Appendix B for a complete listing.

Figure 2: Map of CAPE academies

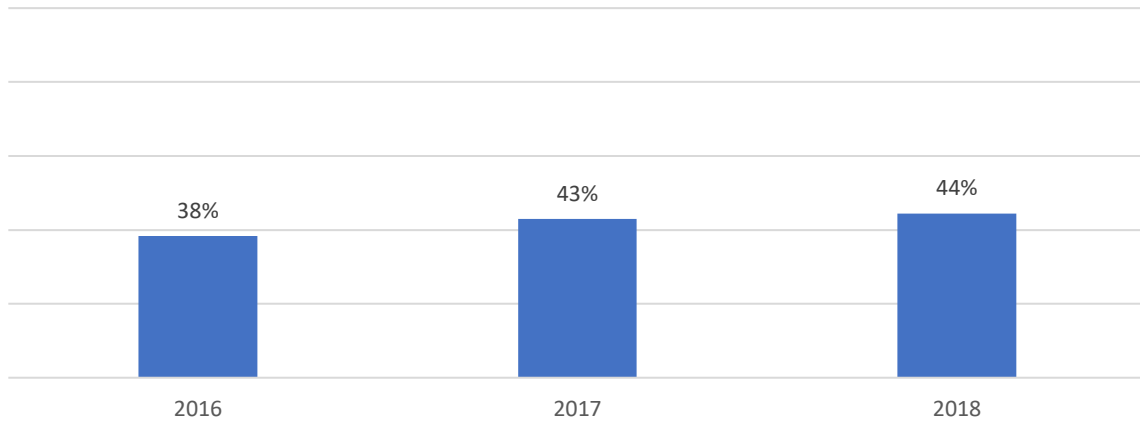


Industry types

- 1 Agribusiness
- 2 Arts
- 3 Auto
- 4 Biomedical
- 5 Business
- 6 Criminal justice
- 7 Culinary
- 8 Early childhood
- 9 Emergency medical responders
- 10 Graphic arts
- 11 Health
- 12 Hotel, restaurant, and tourism (HRT)
- 13 Journalism
- 14 Manufacturing
- 15 STEM (Science, technology, engineering, and math)
- 16 Technology
- 17 Trades (e.g., construction)

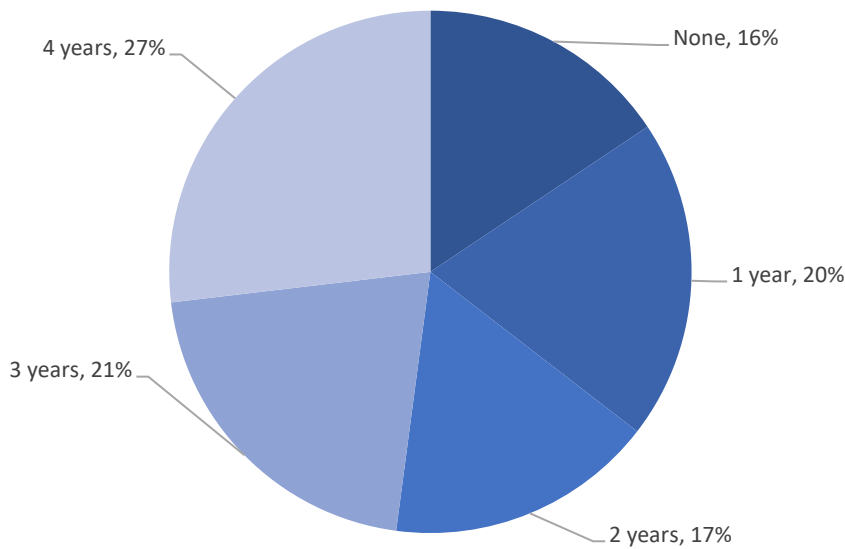
Across the three graduating classes, 42% of all students participated in a CAPE academy for at least one year. As shown in Figure 3, the percentage of students participating has grown over the last three years, from 38% of all students for the 2016 graduating class to 44% of all students for the 2018 graduating class.

Figure 3: Percentage of each graduating class that participated in a CAPE academy for at least one year



Students can earn industry certifications in a CAPE academy, career academy, small learning community, or career and technical education course. However, those participating in CAPE for more years represented a higher percentage of students earning certifications. For example, students participating for three or four years in a CAPE academy represent almost half of all students earning a certification in any types of program.

Figure 4: Percentage of all certification earners, by years of CAPE participation

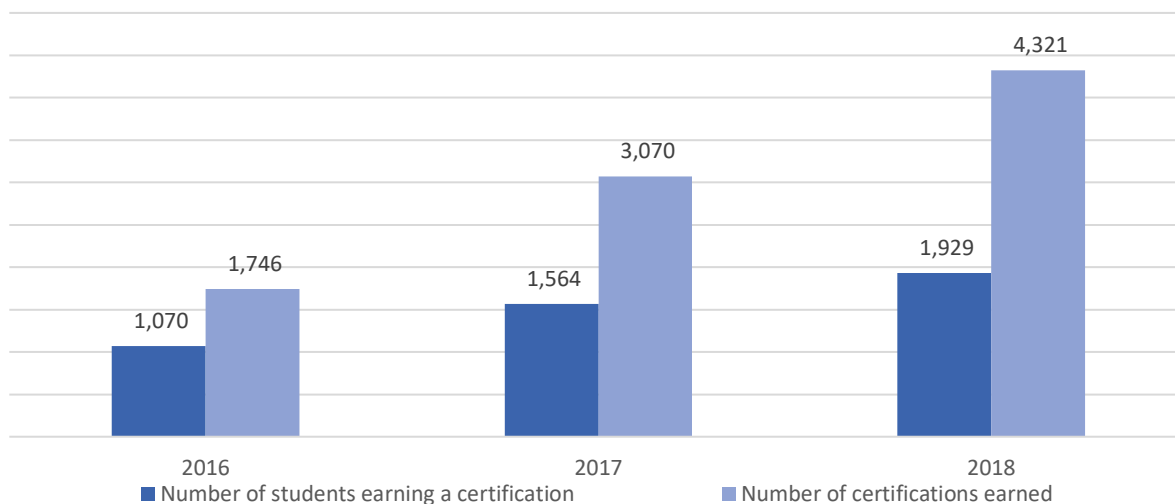


Industry Certifications Earned in High School

As noted, students can earn certifications in any type of academy (and other programs), not just CAPE. This section includes data on all industry certifications earned, regardless of the program. In this report, certification may refer to three types of certifications. Some certifications offered by Pinellas County Schools are universally required as part of a professional license to engage in a specific occupation (e.g., Certified EKG technician), often referred to as credentials; this category accounts for 9% of all certifications offered. Others, however, are industry standard as a requirement by employers (e.g., CPR for lifeguards, A+ for computer techs, Adobe Visual C for web developers); this category accounts for 27% of all certifications offered. Finally, a third group is not required by license or industry standard but are often listed as preferred in job postings.

Figure 5 provides the number of students earning a certification by graduating class and the number of certifications earned. As shown, both have increased as have the average number of certifications earned – from 1.6 to 2.2 per student. This represents a 37% increase in the number earned per student. Across all three graduating classes, 20% of students earned an industry certification, although that percentage rose from 14% of the 2016 graduating class to 25% of the 2018 graduating class – almost doubling during the last three years.

Figure 5: Number of students and number of certifications, all programs



Races identified by Pinellas County Schools include White, Black, Asian, Hawaiian or Pacific Islander, and American Indian or Alaskan. (Asian, Hawaiian or Pacific Islander, American Indian or Alaskan are grouped together in the “other” category.) Ethnicities include Hispanic. Race is different than ethnicity: A student may be both White and Hispanic or both Black and Hispanic. Therefore, data are provided for both race and ethnicity. During the years of the study, 71% of Pinellas County students were White, 20% were Black, and

9% were in the “other” category (fewer than 500 per graduating class); 13% of students were Hispanic (may be of any race).

Figure 6 presents the percentage of students who earn at least one industry certification, by demographic categories. Because the data are shown by three distinct categories – race, ethnicity, and gender – data are shown by what percentage did and did not earn certifications. The district average is 20%, shown as a line. For example, 19% of all female students earned at least one certification while 81% did not, compared to the district average of 20% who did and 80% who did not.

Figure 6: Percentage of students earning at least one certification in high school, all programs

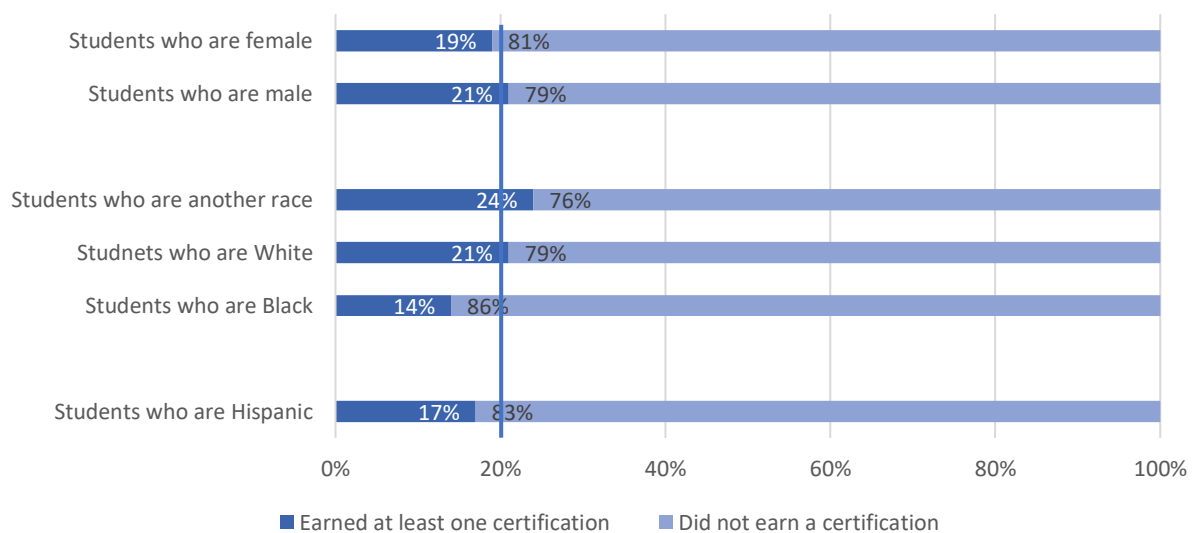


Figure 7 provides a list of the most prevalent certifications. All Microsoft program certifications (Office, Excel, Access) have been combined as have all the Adobe programs, FEMA-related programs, and early childhood programs. These numbers represent the number of certifications, not the number of students as students can earn more than one certification. See Appendix C for a complete list.

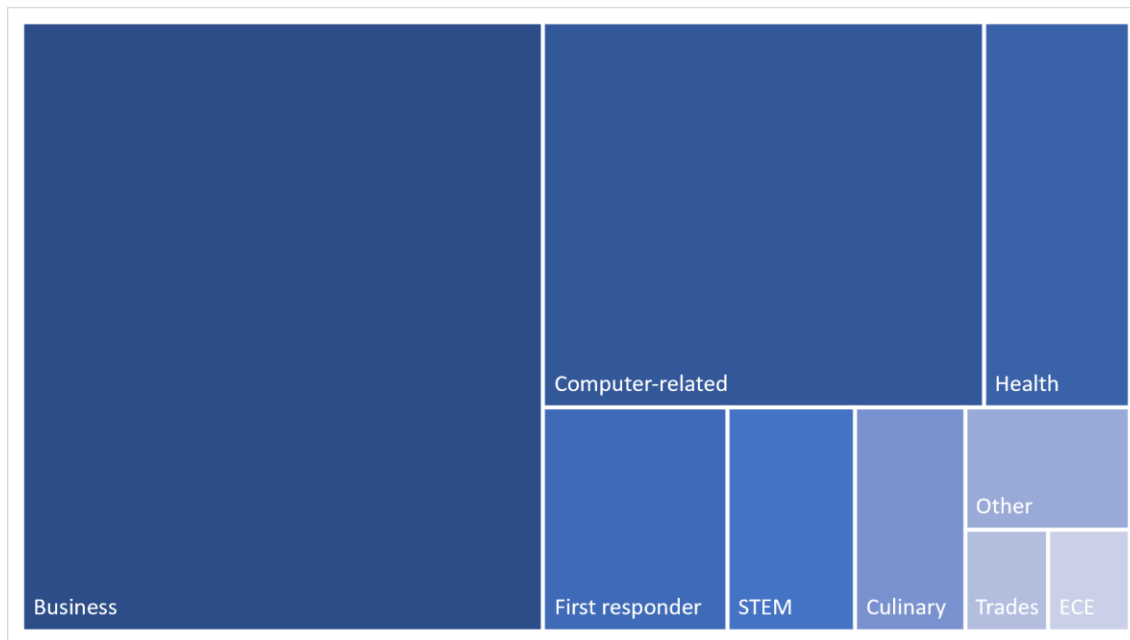
Figure 7: Top 11 certifications, by graduating class, all programs

Certification and type	Graduating class		
	2016	2017	2018
Microsoft Office programs such as WORD, EXCEL, and PowerPoint: business	596	1,319	1,957
Adobe programs such as Visual C and Photoshop: technical	380	471	513
Microsoft Technician: technical	198	236	316
Certified EKG Technician (CET): health	78	98	94
Certified Nursing Assistant (CNA): health	83	78	99

FEMA (e.g., national response framework, Hazmat): first responder	0	84	89
Certified Food Production Manager: culinary	50	48	65
American Heart Association (life support and Heartsaver): first responder	0	42	114
First Aid: first responder	0	41	97
CAPE Innovation Course: advanced placement	10	45	71
Early Childhood Education: ECE	5	45	62

Figure 8 provides the data by broader types. Certifications related to business (such as Microsoft programs, entrepreneurship, financial planning) are the most prevalent, followed by computer-related (Adobe, Microsoft Technology, Autodesk), and then health (including Certified EKG technician, Certified Nursing Assistant, and Certified Medical Administrative Assistant). ECE stands for Early Childhood Education.

Figure 8: Most common certifications across graduating classes, by type, all programs

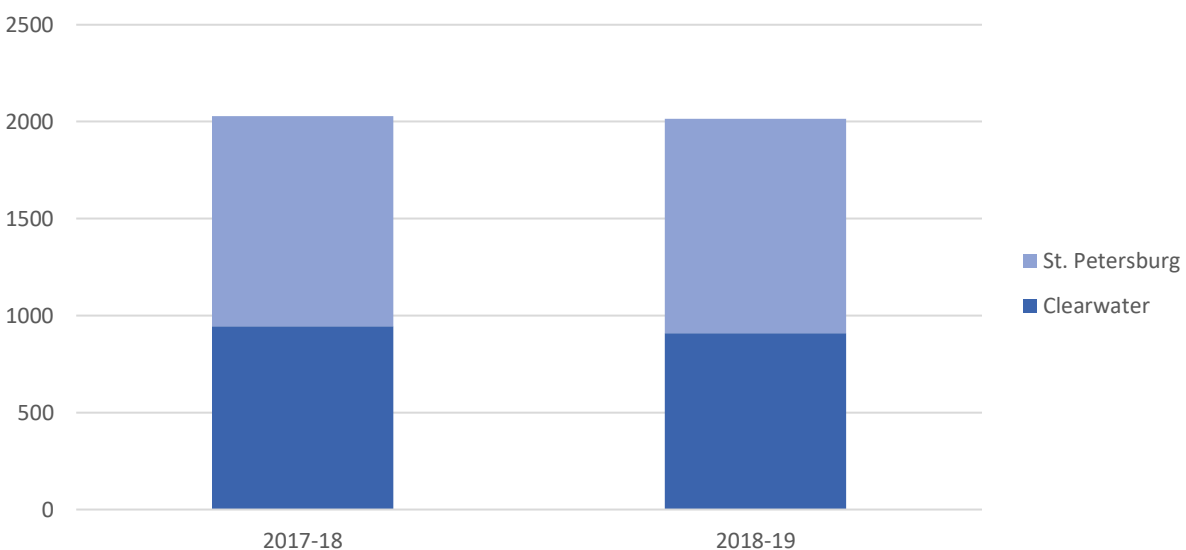


Career and Technical Education After High School

Pinellas County Schools also offers career and technical programs through Pinellas Technical College at two campuses: Clearwater and St. Petersburg. Pinellas Technical College is a two-year institution; St. Petersburg College, a four-year institution, offer certifications as well. Agreements between Pinellas Technical College and St. Petersburg College also allow students to begin at Pinellas Technical College and continue their education at St. Petersburg College for programs such as Commercial Foods and Culinary Arts, Administrative Office Specialist, Medical Administrative Specialist, Medical Biller Coder, Medical Record Transcribing, and Practical Nursing.

As shown in Figure 9, approximately 2,000 students enrolled each fall at Pinellas Technical College in the last two years.

Figure 9: Enrollment at Pinellas Technical College, fall 2017-18 and fall 2018-19, by campus



Pinellas Technical College offers over 60 programs across the two campuses. The most recent CareerSource update⁷ lists jobs in high demand in Pinellas County. Another source, the Florida Department of Economic Opportunity,⁸ lists high-skills/high-wage jobs for 2017-2018. Pinellas Technical College offers programs aligned to several of the top ten high-skill/high-wage jobs including nursing, web developers, and dental hygienists as well as the in-demand jobs identified by CareerSource, including welding, electrical, HVAC, .NET (computer programming), and Network Support Services. Figure 10 lists a few of the in-demand programs, graduation and placement rates, and wage.

Figure 10: Selected programs, graduation rates, and graduate placement rates for 2017-18

Program name	Graduation rate	Graduate placement rate	Annual mean wage ⁹
HVAC programs	84% to 100%	75% to 100%	\$40,750
Dental assisting	100%	95%	\$67,810
Electrician programs	78% to 94%	74% to 93%	\$41,690
.NET	100%	100%	\$79,660
Network support services	82%	72%	\$64,950
Nursing	97%	72%	\$43,400
Web developer	93%	85%	\$64,870
Welding; advanced welding	85%; 75% (advanced)	86%, 93% (advanced)	\$37,810

Figure 11 provides the overall graduation rate and placement rate, by campus. As shown, average rates across programs are over 80% or above.

Figure 11: Graduation rate and placement rate, by campus

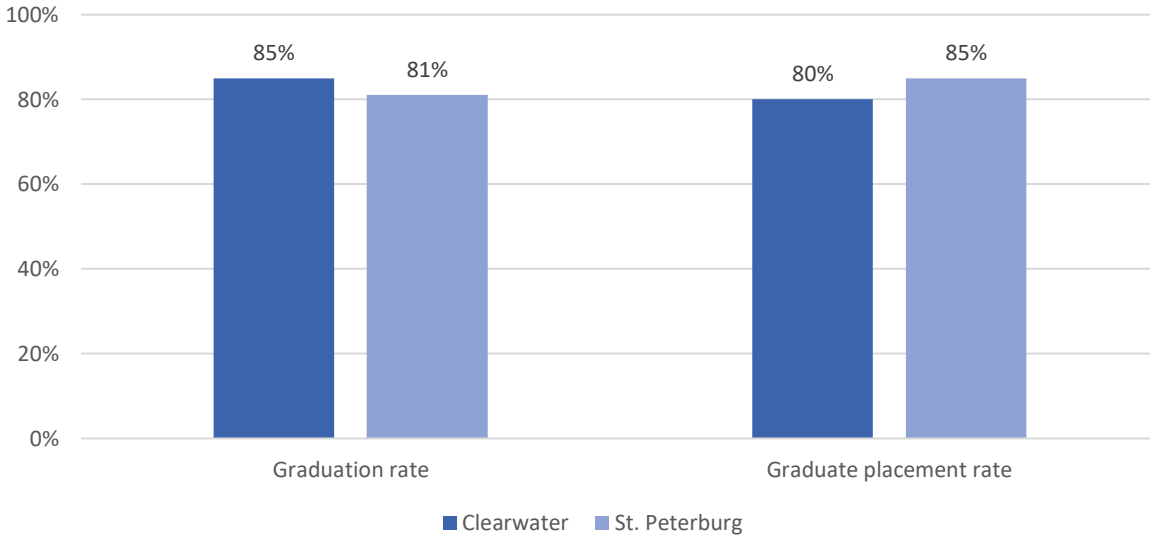
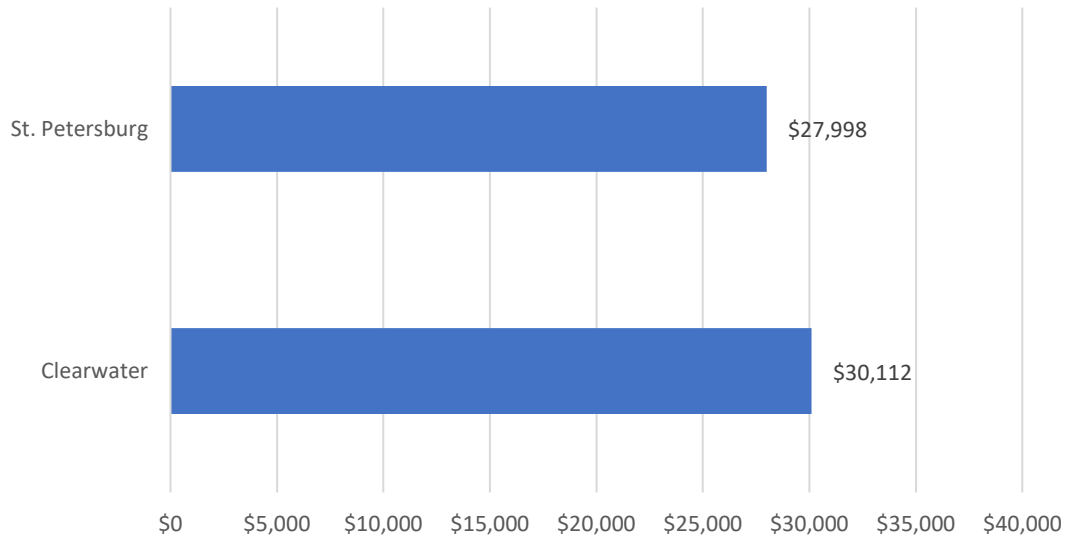


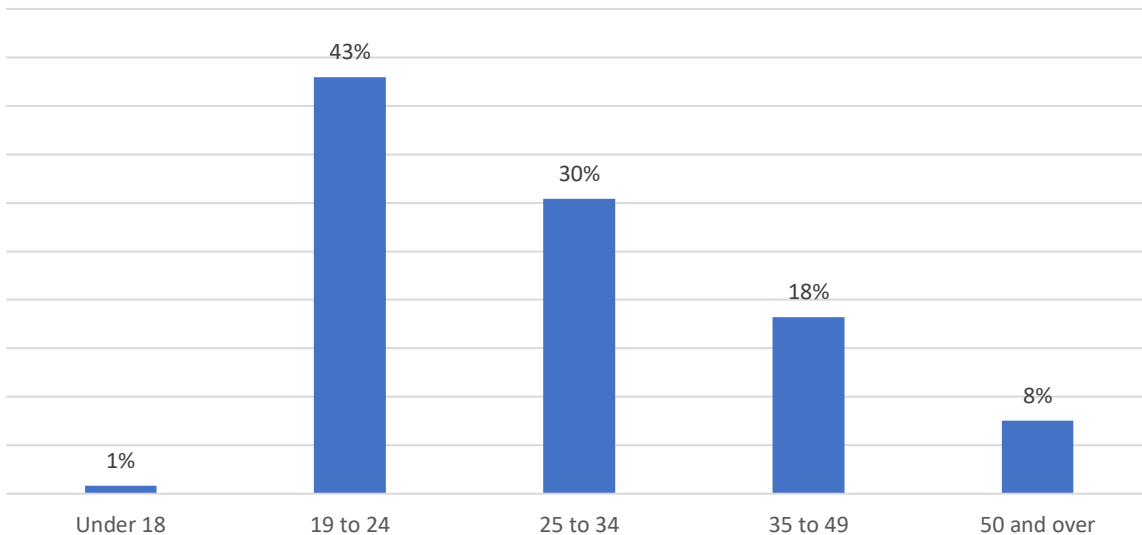
Figure 12 provides the actual median annual earnings of all graduates from all programs a year after receiving their degree or credential. This is just an average; programs in Figure 10 generate higher wages.

Figure 12: Median annual earnings of graduates, by campus¹⁰



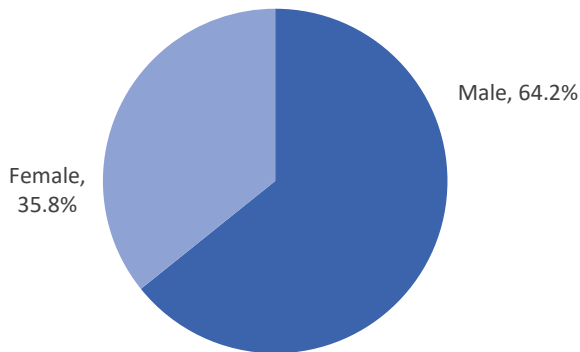
Who attends Pinellas Technical College? Figure 13 provides the age ranges of students at Pinellas Technical College. As shown, 43% of fall 2017 full-time undergraduate students were ages 19 to 24, followed by 30% in the 25 to 34 age range. Fifteen percent of enrollees are under 20 years of age.

Figure 13: Age ranges of students enrolled fall 2017 at Pinellas Technical College



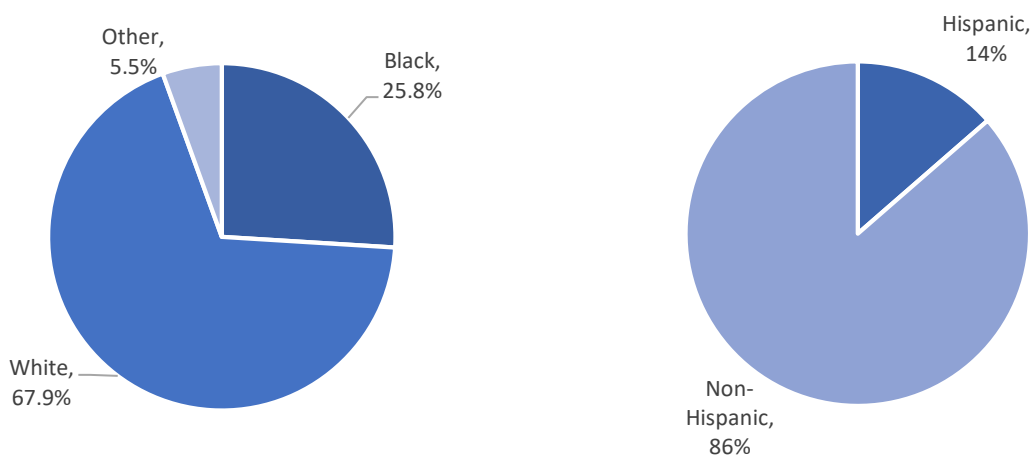
Finally, Figures 14 and 15 provide enrollment data by gender, race, and ethnicity. As shown in Figure 14, 64% of the students enrolling in fall 2018-29 were male while 36% were female.

Figure 14: Pinellas Technical College fall 2018-19 enrollment, by gender



Races identified by Pinellas County Schools include White, Black, Asian, Hawaiian or Pacific Islander, and American Indian or Alaskan. Ethnicities include Hispanic and non-Hispanic. Race is different than ethnicity: a student may be both White and Hispanic or both Black and Hispanic. Therefore, data are provided for both race and ethnicity. As shown in Figure 15, approximately 68% of students enrolled in the fall of 2018-19 across both campuses were White and 26% were Black; 6% were another race². In Pinellas County, approximately 82% of residents are White, 10% are Black, and 8% are another race¹¹. Just fewer than 14% of students of all races were Hispanic compared to 9.2% in Pinellas County as a whole¹². The greater diversity may reflect that a younger population enrolls at Pinellas Technical College.

Figure 15: Pinellas Technical College fall 2018-19 enrollment, by race and ethnicity



² American Indian or Alaskan, Asian, and Pacific Islander or Hawaiian

The Foundation for a Healthy St. Petersburg (FHSP) and Pinellas Education Foundation (PEF) have formed a strategic partnership to advance equitable educational outcomes and boost education quality for all students in Pinellas County. The strategic partnership between the two foundations launched with a series of research reports on key education topics, entitled *Focus on Education*. The first report, released in July 2018, covered postsecondary education attainment. One indicator in that report related to high school career and technical education: the number of CAPE academy industry certifications earned while in high school (see below for a description of academy types). As the community stakeholders reviewed the findings, they identified a series of questions, such as how many students obtain an industry certification, the demographics of those students, and the most common certifications earned. We hope this supplemental report provided answers to those questions.

About the Report Partners

Pinellas Education Foundation

The Pinellas Education Foundation is dedicated to accelerating achievement for all students through the mobilization of innovation, relationships, and resources. By focusing on improving academic achievement and preparing students for multiple pathways after high school, the foundation ensures that students are prepared for life after high school, whether that path is college, career technical education, work, or the military.



LEAP

LEAP Tampa Bay is a cross-sector network of partners representing business, education, philanthropy, and government who have established a community-wide commitment to college access and attainment in Hillsborough and Pinellas Counties, with a goal to reach 60% of working age adults (age 25-64) holding a degree or high-quality certificate by 2025. By working together with a collective impact approach, LEAP partners are helping more people earn such credentials, thus improving their family's earning potential, building the talent available for job opportunities in Tampa Bay's thriving economy, and achieving large-scale social impact.



Foundation for a Healthy St. Petersburg

The Foundation for a Healthy St. Petersburg is a private foundation formed in 2013 following the sale of the nonprofit Bayfront Health St. Petersburg. It is the steward of more almost \$180 million in assets to serve the residents of Pinellas County, particularly those in greatest need. The foundation's mission is to end differences in health due to social or structural disadvantages, and to improve population health by inspiring and empowering people, ideas, organizations, and relationships.



The report partners would like to thank Pinellas County Schools for providing the data for the study, answering the questions about the data, and sharing information on their efforts.

Appendix A: Methodology

The Pinellas Education Foundation disseminated a request for proposal to conduct this project. Once the researcher was selected, the project team from the Pinellas Education Foundation then met with representatives from the district to review the approach, discuss the availability of data, and determine how the report would be used to benefit students.

Although this report was developed in partnership with Pinellas County Schools, the researcher submitted a formal research request that documented steps taken to safeguard student information. For example, student names, addresses, and other contact information was not shared. Students in the study are those that entered 9th grade in Pinellas County in either 2012, 2013, or 2014 for a total of 23,073 records. Those years were chosen so that graduation outcomes would be available for analysis. The district provided Excel files that included the variables included in this report, such as CAPE participation, industry certification, graduation outcomes, and college enrollment. Files were analyzed both separately and merged. The district also provided a data dictionary to detail the variables used. The analytical software used was JMP.

Appendix B: List of academies, by high school

Source: Pinellas County Schools

Figure B1: Academy locations and focus

Name of high school	Program	Industry focus (theme)
Boca Ciega	Center for Wellness & Medical Professions	Health occupations
Boca Ciega	Business and Design Academy	Business
Boca Ciega	PLTW	Engineering
Clearwater	BLIS (Career Academy for International Culture and Commerce, JROTC)	International business, accounting, digital graphics
Clearwater	STEAM - Academy of Science, Technology, Agriculture and Mathematics	Aerospace, materials & processes, electronics, global logistics
Clearwater	FAME - Academy of Fine Arts & Media Education	Television production and fine arts
Clearwater	SHARE - Academy of Sports, Hospitality, and Recreational Education	Physical education; hospitality and tourism
Countryside	Center of Childhood Education	Early childhood education
Countryside	ISTEM	Engineering, biomedical science, television
Dixie Hollins	Graphic Arts Academy	Digital graphics, commercial art
Dixie Hollins	Center for Culinary Arts	Culinary
Dunedin	Academy of Architectural Design and Building Technologies	Architecture, construction, electrician
Dunedin	Academy of Business, Art and Technology	Business
East Lake	Academy of Engineering	Engineering, manufacturing
East Lake	Business Technologies Program	Digital graphics, software development
East Lake	Biomedical	Biomedical
Gibbs	Business, Economics, Technology Academy	IT, networking, business management, graphic arts
Gibbs	Early Childhood Education	Childcare
Lakewood	Center for Advanced Technologies	IT, cybersecurity, robotics

Name of high school	Program	Industry focus (theme)
Lakewood	Academy for Aquatic Management Systems and Environmental Technology	Agribusiness
Lakewood	Center for Journalism & Multimedia	Digital graphics, journalism
Largo	Academy of Business, Finance and Insurance	Business
Northeast	Academy of Finance	Finance, accounting
Northeast	Academy of Information Technology	IT, digital graphics
Northeast	Automotive & Manufacturing Tech Center	Automotive, manufacturing
Northeast	Center for Culinary Arts	Culinary
Osceola	Center for Culinary Arts	Culinary
Osceola	Academy of Technology, Entertainment and Design	IT, digital design, sports marketing, television production
Osceola	Manufacturing (Engineering) Academy	Manufacturing
Palm Harbor	Center for Wellness & Medical Professions	Health occupations
Palm Harbor	Center of Academics for Business Administration and Management	Business management
Pinellas Park	Criminal Justice Academy	Criminal justice
Pinellas Park	First Responders	Emergency medical responder
Pinellas Park	Academy of Graphic Design and Business	Business
Pinellas Park	Auto Collision and Repair	Automotive
Seminole	Center for Engineering	Engineering
Seminole	Academy of E-Commerce & Int'l Marketing	Information technology and marketing
Jacobson Tech	Carpentry	Carpenter
Jacobson Tech	Electrical	Electrician
Jacobson Tech	Veterinary Sciences Program	Veterinary
Jacobson Tech	Academy of Health Professions	Nursing
Jacobson Tech	Gaming and Commercial Art Technology	Commercial art, graphics
St. Petersburg	Center for Construction Technologies	Construction
Tarpon Springs	Jacobson Culinary Arts Academy	Culinary
Tarpon Springs	Early Childhood Education	Childcare
Tarpon Springs	Veterinary Science Technologies	Veterinary

Figure B2: Location of small learning communities, and focus

Name of high school	Program	Industry focus (theme)
Boca Ciega	JROTC	Military
Countryside	Center for Computer Technologies	IT, cybersecurity, networking, digital graphics
Dixie Hollins	Machining Technologies	Machining technologies
Dixie Hollins	Cosmetology	Cosmetology
Dixie Hollins	JROTC	Military
Dunedin	Cosmetology	Cosmetology
Dunedin	JRPTC	JROTC
East Lake	ARTS	Arts
Gibbs	Center for the Arts	Arts
Gibbs	Emergency Medical Technology	Public service
Gibbs	JROTC	JROTC
Largo	ExCEL	Leadership
Largo	Health and Human Services	Culinary, childcare
Largo	Industrial Engineering	Auto, welding
Largo	Creative Arts and Communication	TV production, arts
Pinellas Park	Patriot Innovation Institute	Entrepreneurship
Seminole	Center for Education and Leadership	Teacher preparation
Seminole	iHawk Academy	Personalized learning
St. Petersburg	Hospitality and Tourism	Hospitality and business
Tarpon Springs	Conservatory of the Arts	Arts

Appendix C: List of certifications earned, alphabetically and by graduating class

Source: Dataset provided by Pinellas County Schools

Certification	Class of 2016	Class of 2017	Class of 2018
Adobe Certified Associate (ACA) – Dreamweaver	8	10	12
Adobe Certified Associate (ACA) – Flash	7	10	3
Adobe Certified Associate (ACA) – Flash	0	0	11
Adobe Certified Associate (ACA) - Illustrator	14	64	61
Adobe Certified Associate (ACA) – InDesign	8	32	58
Adobe Certified Associate (ACA) – Photoshop	83	84	155
Adobe Certified Associate (ACA) – Premier	21	12	46
Adobe Certified Associate (ACA) - Rich media	20	5	4
Adobe Certified Associate (ACA) – Illustrator	18	16	0
Adobe Certified Associate (ACA) - InDesign	14	19	3
Adobe Certified Associate (ACA) - Video Co	2	0	0
Adobe Certified Associate (ACA) - Video Co	20	56	42
Adobe Certified Associate (ACA) - Visual C	80	17	0
Adobe Certified Associate (ACA) - Visual C	55	123	101
Adobe Certified Associate (ACA) - Web comm	11	0	0
Adobe Certified Associate (ACA) - Web comm	12	7	12
Adobe Certified Expert (ACE) - Acrobat	0	0	1
Adobe Certified Expert – Illustrator	0	0	1
Adobe Certified Expert – InDesign	0	1	0
Adobe Certified Expert - Photoshop	7	15	1
Adobe Photoshop (CS6)	0	0	2
Agricultural Biotechnology Certification	6	0	0
Agricultural Biotechnology Certification	0	1	0
Agricultural Technician Certification	2	1	0
Agricultural Technician Certification	1	0	6
American Heart Assoc. Basic Life Support	0	21	82
American Heart Assoc. Heartsaver	0	21	32
Apple Certified Pro (ACP) – Final cut pro	6	2	2
Applied Finance - 10	0	32	27
ASE Collision Repair and Refinishing Tech	0	4	8
Autodesk Certified Professional - 3DS MA	0	0	1
Autodesk Certified Professional – AutoCAD	0	0	1
Autodesk Certified User – AutoCAD	19	16	19
Autodesk Certified User - Inventor	2	7	13
Autodesk Certified User – Revit Architecture	0	0	2
Autodesk Maya	0	0	3

Certification	Class of 2016	Class of 2017	Class of 2018
Biotechnician Assistant	10	25	38
Bloodborne Pathogens	0	20	44
CAPE Innovation Course	10	45	71
Certificate Member (CM)	0	1	0
Certified EKG Technician (CET)	78	98	94
Certified Food Protection Manager – ServS	3	0	0
Certified Food Protection Manager – ServS	47	48	65
Certified Health Unit Coordinator (CHUC)	3	0	0
Certified Horticulture Professional	1	0	0
Certified Internet Web (CIW)	0	3	20
Certified Medical Administrative Assistant	36	50	0
Certified Nursing Assistant (CNA)	83	78	99
Certified Personal Trainer	2	0	0
Certified Solidworks Associate-Academic	6	4	0
Certified Veterinary Assistant (CVA)	21	34	19
Child Development Associate (CDA)	5	13	9
CompTIA A+	5	2	4
CompTIA A+ - Essentials	0	0	4
CompTIA A+ - Practical Applications	0	0	2
CompTIA Network+	0	0	1
CompTIA Security+	5	5	3
Cosmetologist	0	0	1
C-Tech Telecommunications Technologies	0	0	3
Digital Video Production	0	0	20
Early Childhood Professional Certificate	0	9	0
Early Childhood Professional Certificate	0	5	23
Electronics System Associate (ESA)	1	1	0
Emergency Medical Responder	0	12	59
Emergency Medical Responder (EMR)	4	0	0
Engineering Core Certification	50	27	8
Entrepreneurship	0	0	1
Entrepreneurship and Small Business	0	0	26
Entrepreneurship and Small Business	0	9	43
FEMA IS 100 (ICS)	0	0	1
FEMA IS 120 - Exercise Design	0	24	0
FEMA IS 22 - Are You Ready	0	0	1
FEMA IS 42 - Social Media	0	0	18
FEMA IS 45 - Military Resources	0	0	38
FEMA IS 5 - HazMat	0	0	30
FEMA IS 700 - National Incident Mgmt System	0	0	1
FEMA IS 800 (NRF)	0	60	0
Financial Planning - 12	0	33	39

Certification	Class of 2016	Class of 2017	Class of 2018
Fire Fighter I	0	7	3
First Aid	0	41	97
Florida Automobile Dealers Association	10	19	17
Foodservice Management Professional (FMP)	7	0	1
IC3 – Computing Fundamentals	0	0	1
IC3 – Key Applications	0	0	1
IC3 – Living Online	0	0	1
IC3 Spark	0	0	1
Intro to Programming using HTML and CSS	0	0	6
Intro to Programming using Java Script	0	0	5
Introductory Child Care Training	0	18	30
Managerial Accounting- Acctg 2	0	0	21
Microsoft Access 2010/2013	0	3	1
Microsoft Access 2013/2016	0	0	3
Microsoft Excel 2010/2013	8	148	92
Microsoft Excel 2013/2016	0	0	149
Microsoft Excel Expert 2016	0	0	5
Microsoft Excel Expert 2010/2013 Part 1	0	1	1
Microsoft Excel Expert 2010/2013 Part 2	0	1	1
Microsoft Excel Expert 2013/2016 Part 1	0	0	1
Microsoft Office Specialist (MOS) Bundle	362	376	41
Microsoft Office Specialist (MOS) Bundle	190	362	872
Microsoft Office Specialist Master	3	4	4
Microsoft Office Specialist Master	16	20	21
Microsoft OneNote/2013	0	2	3
Microsoft Outlook 2010/2013	0	1	4
Microsoft Outlook 2013/2016	0	0	9
Microsoft PowerPoint 2010/2013	9	158	117
Microsoft PowerPoint 2013/2016	0	0	185
Microsoft SharePoint 2013	0	0	4
Microsoft Technology Associate (MTA) - D	4	17	21
Microsoft Technology Associate (MTA) - G	2	2	1
Microsoft Technology Associate (MTA) - H	1	0	0
Microsoft Technology Associate (MTA) - M	0	0	31
Microsoft Technology Associate (MTA) - N	13	0	0
Microsoft Technology Associate (MTA) - N	54	60	66
Microsoft Technology Associate (MTA) - S	40	0	0
Microsoft Technology Associate (MTA) - S	44	128	164
Microsoft Technology Associate (MTA) - W	1	0	0
Microsoft Technology Associate (MTA) - W	39	29	33
Microsoft Word 2010/2013	8	241	145
Microsoft Word 2013/2016	0	0	277

Certification	Class of 2016	Class of 2017	Class of 2018
Microsoft Word Expert 2016	0	0	8
Microsoft Word Expert 2010/2013 Part 1	0	1	6
Microsoft Word Expert 2010/2013 Part 2	0	1	3
Microsoft Word Expert 2013/2016 Part 1	0	0	5
NAFTrack	0	0	22
NASM Certified Personal Trainer (CPT)	0	0	1
National ProStart Certificate of Achievement	1	0	0
National ProStart Certificate of Achievement	13	35	11
NCCER Carpentry - Level 1	1	0	0
NCCER Carpentry - Level 1	0	0	1
NCCER Carpentry- Level 1 Secondary	25	1	0
NCCER Construction Technology Secondary	23	0	0
NCCER Core	0	6	14
NCCER Electrical - Level 1	8	0	0
NCCER Electrical – Level 1 Secondary	2	3	3
OSHA 10	0	11	17
Principles of Accounting - 11	0	29	27
Principles of Finance - 9	0	38	32
Professional Ethics	0	0	6
QuickBooks Certified User	18	15	28
RECF Pre-Engineering Certification	21	1	0
RECF Pre-Engineering Certification	11	26	39
RECF Robotics Certification	14	1	0
RECF Robotics Certification	11	19	33
S/P2 Mechanical Pollution Prevention Certification	0	0	7
S/P2 Mechanical Safety Certification	0	0	8
SafeStaff Employee Foodhandler Training	0	38	55
Small UAS Safety Certification	0	2	2
Staff Credential	0	15	23
VITA Advanced	0	0	41
Wildland Fire Fighter	0	7	0

Endnotes

¹ Carenvale, Smith & Strohl, 2013

² Amos, J. 2015, (Not) rising to the challenge: Recent high school graduates not prepared for rigors of college or work, according to new Achieve survey findings. Retrieved December 7, 2018 from <https://all4ed.org/artickes/>.

³ Carenvale, Smith & Strohl, 2013

⁴ Amos, J. 2015, (Not) rising to the challenge: Recent high school graduates not prepared for rigors of college or work, according to new Achieve survey findings. Retrieved December 7, 2018 from <https://all4ed.org/artickes/>.

⁵ Chiefs for Change. 2019. Let's get to work: Learning from success in Career and Technical Education.

⁶ IBID

⁷ http://lmsresources.labormarketinfo.com/library/releases/arearelease_region14.pdf

⁸ *Pinellas County Community Indicator Report: The State of Postsecondary Access and Attainment in Pinellas County*, available at <https://healthystpete.foundation/news/2018/07/improving-post-secondary-attainment-in-pinellas-county/>.

⁹ https://www.bls.gov/oes/current/oes_45300.htm

¹⁰ *Pinellas County Community Indicator Report: The State of Postsecondary Access and Attainment in Pinellas County*, available at <https://healthystpete.foundation/news/2018/07/improving-post-secondary-attainment-in-pinellas-county/>.

¹¹ 2013-2017 American Community Survey 5-year estimates

¹² 2013-2017 American Community Survey 5-year estimates