

# Sussex County Vocational Technical School District *Program Review and Analysis*

September 2022

*Prepared by*

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University of Delaware

*In coordination with*

Sussex County Vocational Technical School District



UNIVERSITY OF DELAWARE  
**BIDEN SCHOOL OF PUBLIC  
POLICY & ADMINISTRATION**

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## Preface

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As the Director of the Institute for Public Administration (IPA) at the University of Delaware, I am pleased to provide this report: *Sussex County Vocational Technical School District Program Review and Analysis*.

This project was funded by the Sussex County Vocational Technical School District. The purpose of this report is to review the career and technical programs offered in the district and provide analysis on enrollment trends and alignment with the job market. This report analyzes labor market projections and will help district leaders determine the best career and technical classes to offer for students. Ultimately, this report will help the district strategically plan and ensure all students who attend Sussex County Vocational Technical School District are prepared to excel in their career or college path.

IPA is committed to working with organizations that educate and support all students and their families. It is my hope that this report will help to structure the path forward for vocational education in the state.

I would like to acknowledge IPA Assistant Policy Scientist Haley Qaissaunee for serving as Principal Investigator for this work. IPA Policy Scientist Kelly Sherretz is also recognized for her important contributions with stakeholder outreach and data analysis. Graduate Public Administration Fellow Brendan Laux and undergraduate Public Administration Fellow Jenna DeMaio also contributed extensively to the data collection, analysis, and writing—they were integral to the completion of the report. Kudos also go to Policy Specialist II Alaina V. Robinson for copy editing the report and Assistant Policy Scientist Sarah Pragg for editing and formatting the document.

Jerome R. Lewis, Ph.D.

Director, Institute for Public Administration

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We also thank Sarah Pragg for her editing and graphic design work. This report was the result of the efforts and contributions of many talented and committed individuals.

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## Definitions

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**Career Ready:** Student has demonstrated readiness for a career after high school by meeting one of the predetermined “career” indicators, such as a state industry credential/license, dual enrollment, cooperative education program or work-based learning experience, certificate of multiliteracy, and/or Armed Services Vocational Aptitude Battery (ASVAB) completion (Delaware Report Card, 2022).

**College Ready:** Student has demonstrated postsecondary educational readiness by meeting one of the predetermined “college” indicators, such as successful Advanced Placement (AP), International Baccalaureate (IB), SAT essay, and/or dual enrollment completion (Delaware Report Card, 2022).

**College and/or Career Ready:** Student has demonstrated readiness for postsecondary education and/or a career through success in at least one or more identified “career” or “college” indicators. (Delaware Report Card, 2022).

**College and Career Ready:** Student has achieved success in at least one “College” and one “Career” indicator (Delaware Report Card, 2022).

**Comprehensive School District:** Governmental bodies with the authority to hold referenda, levy and collect taxes, sell bonds, and service bonded debts. They are governed by boards comprised of individuals elected by the public. There are 16 comprehensive school districts in Delaware (Delaware School Administrator Funding Analysis, 2019).

**Middle-Skills Jobs:** jobs that require more than a high school diploma, but less than a four-year degree. Typically, this means an individual getting a two-year degree, a certificate, an apprenticeship, or some other type of recognized licensing. Examples of middle-skills jobs, also known as “skilled jobs,” include dental hygienists, electricians or construction workers, police officers, and nurses (Career Vision, 2022).

**What is a “good job?”** According to Georgetown University’s Center on Education and the Workforce, a good job pays at least \$35,000 per year and \$57,000 at the median for young workers (ages 25 to 35) nationwide, with adjustments based on cost-of-living differences among states (Center on Education and the Workforce [CEW], 2022). Other educational research studies define good jobs as ones that provide for an employee’s basic needs and higher level wants. Basic needs include earning a living wage and having health benefits, a standard and flexible schedule, job security, and physical safety (Good Jobs Institute, n.d.). Higher level wants are opportunities for career advancement, a sense of belonging and teamwork, and a good work-life balance (Mondkar, 2021).

## Executive Summary

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At the request of the Sussex County Vocational Technical School District, the Institute for Public Administration at the University of Delaware produced this report to analyze the career and technical education (CTE) programs in the district and provide key takeaways and recommendations the district can use for strategic planning. The Sussex County Vocational Technical School District is comprised of one high school, Sussex Technical High School (Sussex Tech). This analysis will assist district leaders and school board members with determining the best CTE programs to offer, help the district plan for expanded seats, and ensure all students who attend Sussex Tech are prepared to excel in their career or college path.

The report provides an in-depth look at the 18 Sussex Tech CTE programs offered, focusing on enrollment and work-based learning trends, industry certifications, occupational projections, labor market analyses, key takeaways, and next steps for consideration. There is also information about CTE programs not offered at Sussex Tech that may be of interest.

### Labor Market Analysis

For the labor market analysis in this report, the IPA team used data from the Occupational Information Network (ONET). ONET is the nation's primary source of occupational information and has data on nearly 1,000 occupations that span the entire U.S. economy. Using ONET data, information on over 240 occupations was analyzed.

### Key Takeaways

The tables below summarize the outlook for the 18 CTE programs at Sussex Tech (Table 1) and three additional CTE programs (Table 2) for consideration.

The IPA team used ONET definitions and U.S. Bureau of Labor Statistics (BLS) data to inform the key takeaways related to the labor market analysis. Using ONET and BLS metrics, occupations with at least 10 percent growth are considered to be "fast growing," and Delaware careers with at least 30 annual job openings are considered to have a large number of openings. This number is estimated from ONET's definition of a large number of national openings and adjusted to the Delaware population.

Enrollment and credential information is also included in the Tables 1 and 2. Credential information compares the certifications that Sussex Tech prepares students for to the certifications recognized by the Delaware Department of Education (DDOE). This comparison will help visualize alignments and gaps.

Listed below are definitions for the terms used in the “Occupation Outlook” Column in Tables 1 and 2.

**Very Positive:** There are very positive indicators present and the occupation shows any of the following indicators of exceptional growth:

- More than half of the occupations are projected to be “fast growing” in Delaware, **OR**
- More than half of the occupations are projected to have at least 30 annual openings in Delaware

**Mostly Positive:** There are mostly positive indicators present, but the occupation does not show the indicators of exceptional growth or slowed growth present in the other categories.

**Mixed:** There are some positive indicators present, but the occupation shows any of the following indicators of decline or slow growth:

- 25 percent or more of the occupations are expected to decline, **OR**
- Fewer than two occupations are projected to be “fast growing” in Delaware, **OR**
- Fewer than two occupations are projected to have at least 30 annual openings in Delaware

**Bright Outlook:** An occupation is labeled as a “Bright Outlook” nationally if they are projected to grow at least 10 percent from 2020 to 2030, are projected to have at least 100,000 openings over the ten-year period or are identified as an emerging occupation due to technological advancements or breakthroughs (Occupational Information Network [ONET], 2021).

Table 1. Summary of Outlook for the 18 CTE programs at Sussex Tech

CTE Program	ONET Core Occupation(s)	Occupation Outlook	Enrollment & Credentials
<b>Automotive Technologies</b>	<ul style="list-style-type: none"> <li>Automotive Service Technicians</li> </ul> <p><i>*See Table 11 for all occupations analyzed</i></p>	<p><b><u>Mostly Positive</u></b></p> <p>There are several positive indicators in this field and few indicators to suggest slowing growth or decline.</p>	<ul style="list-style-type: none"> <li>Between 2018 and 2022, enrollment mostly remained consistent with a slight decline in 2021.</li> <li>Sussex Tech prepares students for 11 of the 16 certifications that DDOE recognizes.</li> </ul>
<b>Business, Finance, and Marketing Technologies</b>	<ul style="list-style-type: none"> <li>Bookkeeping/Accounting Clerks</li> <li>Office Clerks</li> <li>Information Technology Project Managers</li> </ul> <p><i>*See Table 13 for all occupations analyzed</i></p>	<p><b><u>Mixed</u></b></p> <p>There is a high number of job openings in most of the occupations, which is a strong positive indicator for the future. However, growth for seven occupations is projected to decline over time.</p>	<ul style="list-style-type: none"> <li>Between 2018 and 2022, enrollment has remained consistent, remaining between 43 and 46 students.</li> <li>Sussex Tech prepares students for one of the eight certifications that DDOE recognizes.</li> </ul>
<b>Carpentry and Construction Management</b>	<ul style="list-style-type: none"> <li>Carpenters</li> <li>Construction Managers</li> </ul> <p><i>*See Table 15 for all occupations analyzed</i></p>	<p><b><u>Very Positive</u></b></p> <p>More than half of the occupations have over 30 annual openings, in addition to strong growth in several occupations. Additionally, Construction Managers have a “Bright Outlook.”</p>	<ul style="list-style-type: none"> <li>Between 2018 and 2022, enrollment mostly declined with a slight uptick in 2022.</li> <li>Sussex Tech prepares students for three of the five certifications that DDOE recognizes.</li> </ul>
<b>Cisco Networking</b>	<ul style="list-style-type: none"> <li>Computer Network Support Specialist</li> </ul> <p><i>*See Table 17 for all occupations analyzed</i></p>	<p><b><u>Very Positive</u></b></p> <p>More than half of the occupations have over 30 annual openings, in addition to strong growth in two occupations.</p>	<ul style="list-style-type: none"> <li>Between 2018 and 2022, enrollment has mostly declined, with an uptick in 2019.</li> <li>Sussex Tech prepares students for two of the nine certifications that DDOE recognizes.</li> </ul>
<b>Collision Repair Technologies</b>	<ul style="list-style-type: none"> <li>Auto Body and Related Repairers</li> </ul> <p><i>*See Table 19 for all occupations analyzed</i></p>	<p><b><u>Mixed</u></b></p> <p>Delaware-specific data for the occupations was limited and inconclusive. There are some positive indicators, such as a large number of job openings, but no occupations are “fast growing” in Delaware or nationally.</p>	<ul style="list-style-type: none"> <li>Between 2018 and 2022, enrollment has steadily increased.</li> <li>Sussex Tech prepares students for four of the seven certifications that DDOE recognizes.</li> </ul>

CTE Program	ONET Core Occupation(s)	Occupation Outlook	Enrollment & Credentials
<b>Cosmetology</b>	<ul style="list-style-type: none"> <li>Hairdressers</li> <li>Cosmetologists</li> </ul> <p><i>*See Table 21 for all occupations analyzed</i></p>	<p><b><u>Mostly Positive</u></b></p> <p>There are several positive indicators in this field and few indicators to suggest slowing growth or decline.</p>	<ul style="list-style-type: none"> <li>Between 2018 and 2022, enrollment has steadily increased.</li> <li>For Cosmetology, there is only one certification recognized by DDOE and Sussex Tech prepares students for that certification.</li> </ul>
<b>Dental Services and Technologies</b>	<ul style="list-style-type: none"> <li>Dental Assistants</li> </ul> <p><i>*See Table 23 for all occupations analyzed</i></p>	<p><b><u>Very Positive</u></b></p> <p>In addition to other positive indicators, nearly all of the occupations are projected to be fast growing. Additionally, Dental Assistants have a “Bright Outlook.”</p>	<ul style="list-style-type: none"> <li>Between 2018 and 2022, enrollment has varied. There was a decline in 2019, an increase from 2019 and 2021, and a slight decline in 2022.</li> <li>For Dental Technologies, there are only two certifications recognized by DDOE and Sussex Tech prepares students for both certifications.</li> </ul>
<b>Digital Publishing and Design Technologies</b>	<ul style="list-style-type: none"> <li>Graphic Designers</li> </ul> <p><i>*See Table 25 for all occupations analyzed</i></p>	<p><b><u>Mostly Positive</u></b></p> <p>There are several positive indicators in this field and few indicators to suggest slowing growth or decline.</p>	<ul style="list-style-type: none"> <li>Between 2018 and 2022 enrollment has varied, with declines in 2019 and 2021.</li> <li>Sussex Tech offers four of the 14 certifications recognized by DDOE and none of the same certifications as POLYTECH.</li> </ul>
<b>Early Care and Education</b>	<ul style="list-style-type: none"> <li>Childcare Workers</li> </ul> <p><i>*See Table 27 for all occupations analyzed</i></p>	<p><b><u>Very Positive</u></b></p> <p>In addition to strong projected growth in several occupations, more than half of the occupations are projected to have a large number of annual openings. Additionally, Childcare Workers have a “Bright Outlook.”</p>	<ul style="list-style-type: none"> <li>Between 2018 and 2022, enrollment increased steadily until 2021 and declined slightly in 2022.</li> <li>Sussex Tech prepares students for one of the five certifications that DDOE recognizes.</li> </ul>
<b>Electrical and Green Energy Technologies</b>	<ul style="list-style-type: none"> <li>Electricians</li> </ul> <p><i>*See Table 29 for all occupations analyzed</i></p>	<p><b><u>Mostly Positive</u></b></p> <p>There are several positive indicators in this field and few indicators to suggest slowing growth or decline.</p>	<ul style="list-style-type: none"> <li>Between 2018 and 2022, enrollment increased steadily until 2021 and declined slightly in 2022.</li> <li>Sussex Tech prepares students for all five of the certifications that DDOE recognizes.</li> </ul>

CTE Program	ONET Core Occupation(s)	Occupation Outlook	Enrollment & Credentials
<b>Electronics</b>	<ul style="list-style-type: none"> <li>Electronics Engineers</li> </ul> <p><i>*See Table 31 for all occupations analyzed</i></p>	<p><b><u>Mixed</u></b></p> <p>Delaware-specific data for the related occupations was limited and inconclusive. Though there are some positive indicators such as a strong number of job openings in three occupations, no occupations were considered to be “fast growing” in Delaware.</p>	<ul style="list-style-type: none"> <li>Between 2018 and 2022, Electronics had the lowest total enrollment of all programs with 104 students.</li> <li>Between 2018 and 2022, enrollment has varied. There was a decline in 2019, increase between 2020 and 2021, and a slight decline in 2022.</li> <li>Sussex Tech prepares students for three of the six certifications that DDOE recognizes.</li> </ul>
<b>Health Professions</b>	<ul style="list-style-type: none"> <li>Nursing Assistants</li> </ul> <p><i>*See Table 33 for all occupations analyzed</i></p>	<p><b><u>Very Positive</u></b></p> <p>Almost all the occupations are projected to be fast growing, have a large number of annual openings, or both.</p>	<ul style="list-style-type: none"> <li>Between 2018 and 2022, the Health Professions program had the highest total enrollment of all programs with 600 students.</li> <li>Between 2018 and 2022, enrollment has varied. From 2018 to 2020, enrollment was consistent. Enrollment declined in 2021 and remained the same in 2022.</li> <li>Sussex Tech prepares students for three of the five certifications that DDOE recognizes.</li> <li>In the state and Kent and Sussex Counties, jobs in healthcare are very common; Beebe Healthcare is the third largest employer in Sussex County.</li> </ul>
<b>HVAC-R Engineering</b>	<ul style="list-style-type: none"> <li>Heating, Air Conditioning, and Refrigeration Mechanics</li> </ul> <p><i>*See Table 35 for all occupations analyzed</i></p>	<p><b><u>Mostly Positive</u></b></p> <p>There are several positive indicators in this field and a few indicators to suggest slowing growth or decline.</p>	<ul style="list-style-type: none"> <li>Between 2018 and 2022, enrollment increased steadily until 2021 and declined slightly in 2022.</li> <li>Sussex Tech prepares students for six of the eight certifications that DDOE recognizes.</li> </ul>



CTE Program	ONET Core Occupation(s)	Occupation Outlook	Enrollment & Credentials
<b>Landscape Management and Environmental Technologies</b>	<ul style="list-style-type: none"> <li>Environmental Engineering Technologists &amp; Technicians</li> </ul> <p><i>*See Table 37 for all occupations analyzed</i></p>	<p><b>Mixed</b></p> <p>Though the high number of job openings in four of the careers is a positive indicator, no occupations are projected to be fast growing occupations.</p>	<ul style="list-style-type: none"> <li>Between 2018 and 2022, enrollment has mostly increased with a slight decline in 2019.</li> <li>Sussex Tech prepares students for one of the two certifications that DDOE recognizes and none of the same certifications as POLYTECH.</li> </ul>
<b>Legal Support Services and Criminal Justice Technologies</b>	<ul style="list-style-type: none"> <li>Paralegals/Legal Assistants</li> <li>Security Guards</li> </ul> <p><i>*See Table 39 for all occupations analyzed</i></p>	<p><b>Very Positive</b></p> <p>In addition to other positive indicators, more than half of the occupations are projected to have a large number of annual openings in Delaware.</p>	<ul style="list-style-type: none"> <li>Between 2018 and 2022, enrollment has varied. There was a slight uptick in 2020 and a decline from 2020 to 2022.</li> <li>Sussex Tech prepares students for all three certifications that DDOE recognizes.</li> </ul>
<b>Media Broadcasting Communications Technologies</b>	<ul style="list-style-type: none"> <li>Audio and Video Technicians</li> <li>Broadcast Announcers and Radio Disc Jockeys</li> <li>Film and Video Editors</li> </ul> <p><i>*See Table 41 for all occupations analyzed</i></p>	<p><b>Mixed</b></p> <p>Delaware-specific data for the related occupations was limited and inconclusive. The available Delaware data show several indicators of slow growth or decline in this field, though the national outlook is much stronger.</p>	<ul style="list-style-type: none"> <li>Between 2018 and 2022, enrollment mostly declined, but had an uptick in 2022.</li> <li>Sussex Tech prepares students for three of the five certifications that DDOE recognizes.</li> </ul>
<b>Physical Therapy – Athletic Health Care</b>	<ul style="list-style-type: none"> <li>Physical Therapist Aides</li> <li>Physical Therapists</li> <li>Athletic Trainers</li> </ul> <p><i>*See Table 43 for all occupations analyzed</i></p>	<p><b>Very Positive</b></p> <p>In addition to other positive indicators, more than half of the occupations are projected to be fast growing occupations. Additionally, the three core occupations are “Bright Outlook” occupations.</p>	<ul style="list-style-type: none"> <li>Between 2018 and 2022, enrollment has declined. 2022 enrollment was about half the 2018 enrollment.</li> <li>Sussex Tech prepares students for three of the four certifications that DDOE recognizes.</li> </ul>
<b>Welding and Fabrication Technology</b>	<ul style="list-style-type: none"> <li>Welders, Solderers, and Brazers</li> </ul> <p><i>*See Table 45 for all occupations analyzed</i></p>	<p><b>Mixed</b></p> <p>Though there are positive indicators, such as a strong number of job openings in three occupations and strong growth in two, a majority of the related occupations in this area are projected to decline.</p>	<ul style="list-style-type: none"> <li>Sussex Tech recently added the Welding program and enrollment data was unavailable.</li> <li>Sussex Tech plans to prepare students for four certifications, two of which DDOE recognizes.</li> </ul>

Sources: Occupational Information Network, 2021; Sussex County Vocational Technical School District, 2022

Table 2. Summary of CTE Programs to Consider

CTE Program	ONET Core Occupation(s)	Occupation Outlook	Enrollment & Credentials
<b>Plumbing</b>	<ul style="list-style-type: none"> <li>Plumbers, Pipefitters, &amp; Steamfitters</li> </ul> <p><i>*See Table 46 for all occupations analyzed</i></p>	<p><b><u>Very Positive</u></b></p> <p>More than half of the occupations are projected to be fast growing, have a large number of projected annual openings, or both.</p>	<ul style="list-style-type: none"> <li>Plumbing is not offered at Sussex Tech.</li> <li>DDOE recognizes one plumbing certification.</li> </ul>
<b>Culinary Arts</b>	<ul style="list-style-type: none"> <li>Restaurant Cooks</li> </ul> <p><i>*See Table 48 for all occupations analyzed</i></p>	<p><b><u>Very Positive</u></b></p> <p>In addition to strong projected growth in several occupations, more than half of the occupations are projected to have a large number of job openings. Additionally, Restaurant Cooks have a “Bright Outlook.”</p>	<ul style="list-style-type: none"> <li>All Delaware vocational-technical (vo-tech) districts except Sussex Tech have a Culinary Arts program, and all four high schools in the New Castle County Vo-Tech District offer Culinary Arts.</li> <li>In Delaware and Kent and Sussex Counties, jobs in food production are most common. In Sussex County, the two largest employers are Perdue Farms Inc. and Mountaire Farms Inc. This information, in combination with the very positive outlook for culinary occupations, may inform decision-makers at Sussex Tech about the potential value of adding a Culinary Arts program.</li> <li>DDOE recognizes six certifications related to Culinary Arts.</li> </ul>
<b>Emergency Medical Services</b>	<ul style="list-style-type: none"> <li>Emergency Medical Technician (EMT)</li> </ul> <p><i>*See Table 50 for all occupations analyzed</i></p>	<p><b><u>Very Positive</u></b></p> <p>Every occupation is projected to be fast growing, have a large number of annual openings, or both. Additionally, EMTs have a “Bright Outlook.”</p>	<ul style="list-style-type: none"> <li>EMT/EMS is not offered at Sussex Tech.</li> <li>DDOE recognizes five certifications related to EMT/EMS.</li> </ul>

Sources: Occupational Information Network, 2021; Sussex County Vocational Technical School District, 2022

## Next Steps for Consideration

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Currently, Sussex Tech does an excellent job preparing students in English Language Arts and math and has very high graduation rates compared to public schools in Delaware. Between 2018 and 2019, Sussex Tech's state standardized test scores showed a significant increase in the percentage of students who are both college and career ready (from 52.7% to 73.6%, see Figures 3 and 4). To continue to provide students an excellent education and purposeful career preparation, next steps for consideration are listed below:

- **Review each CTE program holistically.**
  - Take into consideration the largest employers in Delaware, enrollment and Work-Based Learning (WBL) trends, industry credentials (both national and statewide), and projected growth and annual job openings between 2020 and 2030 (with particular attention to the state of Delaware; Dover, Delaware; and Salisbury, Maryland).
  - Reference Tables 1 and 2 in the executive summary for an overview of all CTE programs and the key takeaways from the report.
- **Perform yearly data collection and updates around the certifications offered at Sussex Tech, POLYTECH, and NCCVT and the certifications recognized by DDOE.** Alignment in certifications across the state will help students have a coherent experience and better prepare them for the Delaware and national workforce. Alignment will also help schools and districts communicate and plan more openly, effectively, and efficiently.
- **Provide yearly exit surveys for graduating seniors to collect data on their plans after graduation.** These data can inform Sussex Tech about where students end up after graduation and how well the school meets its goal to prepare students for college and career. These data can also help Sussex Tech collect employer information and potentially create new relationships and WBL opportunities.
- **Consider the research findings from this report and compare them to the 2022 Sussex Tech Strategic Plan.**

## Introduction

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At the request of the Sussex County Vocational Technical School District, the Institute for Public Administration (IPA) at the University of Delaware produced this report to analyze the career and technical education (CTE) programs in the district and provide key takeaways and recommendations the district can use for strategic planning. The Sussex County Vocational Technical School District is comprised of one high school, Sussex Technical High School (Sussex Tech). This analysis will assist district leaders and school board members with determining the programs to offer, help the district plan for expanded seats, and ensure all students who attend Sussex Tech are prepared to excel in their career and/or college path. Other Delaware vocational technical (vo-tech) districts can also use this report as a basis to analyze their current and future course offerings, goals, and student success metrics.

The IPA team retrieved information from national, state, and local sources. Most of the national data is from the Occupational Information Network (ONET). ONET is the nation's primary source of occupational information and has information on almost 1,000 occupations that span the entire U.S. economy. Delaware and local data are from various sources like the Delaware Department of Education (DDOE) and public school districts in Delaware. This report begins with an overview of Sussex County's demographics, largest industries, and education system. The report then provides an in-depth look at the 18 CTE programs offered, focusing on enrollment and work-based learning trends, industry certifications, occupational projections, labor market analysis, and key takeaways. There is also information about CTE programs not offered at Sussex Tech that may be of interest for the future.

## Career and Technical Education Workforce Overview

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Workforce development and CTE have a history of providing a reliable pathway to skilled jobs and livable wages (Haviland, 2021). The role of CTE in the United States is evolving rapidly due to recent changes in middle-skills jobs, the education landscape, and federal policy priorities. CTE is growing to encompass more educational areas, and its practices are changing ahead of research.

“Middle-Skills Jobs,” also known as “Skilled Jobs” are defined as jobs that require more than a high school diploma but less than a four-year degree (see definition on page 11). Middle-skills jobs may require a two-year degree, certificate, apprenticeship, or another type of recognized credential. Examples of middle-skills jobs include dental hygienists, electricians, construction workers, police officers, and nurses (Career Vision, 2022). Sussex Tech works to prepare students for college and career, which includes preparing students for middle-skills jobs.

Middle-skills jobs are the largest sector of jobs in America, but students can be discouraged from pursuing these jobs or unable to access proper training. According to the National Skills Coalition, 52 percent of jobs are classified as middle-skills jobs, but only 42 percent of people have access to the required education to fulfill these job requirements (National Skills Coalition, 2020). In Delaware, 50 percent of jobs are classified as middle-skills jobs, but only 43 percent of workers have the education required to fill those jobs (National Skills Coalition, 2020).

Most importantly, Sussex Tech wants their graduates to acquire a “good job” (see definition on page 11). According to Georgetown University’s Center on Education and the Workforce (CWE), a good job pays at least \$35,000 per year and \$57,000 at the median for young workers (ages 25 to 35) nationwide, with adjustments based on cost-of-living differences. Over the past few decades, it has become harder for young adults to navigate the process of getting a good job (CWE, 2022). Currently, most young workers do not acquire a good job until their early thirties. Today, only young workers with a bachelor’s degree or higher are more likely to have a good job before age 30. This reality means that young adults need more education and high-quality work experience to secure a good job than in previous generations. As defined in the CWE (2022) study, the three biggest challenges to accessing a good job are as follows:

1. Rising cost of postsecondary education
2. Limited access to high-quality work-based learning
3. The absence of comprehensive counseling and career navigation services

This report discusses work-based learning but does not address the cost of postsecondary education or counseling and career services. However, this research is important to consider—in combination with the information presented in this report—since it could help decision-makers and school leaders better prepare for the future of student learning at Sussex Tech.

## Sussex County Landscape

Sussex Tech seeks to provide students with a well-rounded education that prepares them academically and for the workforce. To provide a clear picture of CTE at Sussex Tech, this report provides national data, but concentrates largely on Delaware. The Delaware data focus on the state, Kent and Sussex County, and other vo-tech school districts in Delaware. Information from the City of Salisbury and Worcester County, Maryland, is also highlighted to provide regional comparisons. Both Salisbury and Worcester County are located close to Sussex Tech, and graduating students may consider employment in these areas.

To better understand Sussex Tech students, their environment, and class offerings, it is helpful to provide context about Sussex County residents and industries. According to population estimates from 2021, there are 247,527 people living in Sussex County (U.S. Census Bureau). Of those individuals, 18 percent are under 18 years old, and 29.8 percent are 65 years or older. The population is predominantly White residents (75.4 percent), followed by Black or African American residents (11.8 percent), and Hispanic or Latino residents (9.6 percent) (U.S. Census Bureau, 2021).

In terms of industry, listed below in Tables 3–5 are the 10 largest employers in Sussex County, Kent County, and the state of Delaware. State data are from 2022 and county data are from 2021. In the state and counties, jobs in food production and healthcare are most common. In Sussex County, the two largest employers are Perdue Farms Inc. and Mountaire Farms Inc.

Table 3. Largest Employers in Sussex County, Delaware, 2021

Rank	Company	Sussex County Employees	Description
1	Perdue Farms Inc.	4,360	Food Production
2	Mountaire Farms Inc.	3,623	Food Production
3	Beebe Healthcare	2,643	Healthcare
4	State of Delaware	2,000	State Government
5	Indian River School District	1,661	Public School District
6	Allen Harim	1,100	Food Production
7	Bayhealth	950	Healthcare
8	SoDel Concepts	924	Hospitality
9	Delaware Technical Community College	871	University
10	M&T Bank	744	Bank

Source: Delaware Book of Lists, 2021

Table 4. Largest Employers in Kent County, Delaware, 2021

Rank	Company	Kent County Employees	Description
1	State of Delaware	11,410	State Government
2	Dover Air Force Base	6,400	U.S. Military
3	Bayhealth	3,200	Healthcare
4	Federal Government	1,700	Federal Government
5	Walmart	1,625	E-Commerce
6	Perdue Farms Inc.	1,460	Food Production
7	Dover Downs Hotel & Casino	1,325	Entertainment
8	Capital School District	1,155	Public School District
9	Caesar Rodney School District	1,097	Public School District
10	Delaware State University	909	University

Source: Delaware Book of Lists, 2021

Table 5. Largest Employers in Delaware, 2022

Rank	Company	Delaware Employees	Description
1	State of Delaware	31,400	State Government
2	ChristianaCare	13,412	Healthcare
3	JPMorgan Chase	11,500	Bank
4	Amazon	7,300	E-Commerce
5	Dover Air Force Base	6,156	U.S. Military
6	Bank of America	6,000	Bank
7	Federal Government	5,800	Federal Government
8	Perdue Farms Inc.	5,780	Food Production
9	Mountaire Farms Inc.	5,032	Food Production
10	University of Delaware	4,746	University

Source: Delaware Book of Lists, 2022

## Demographics

This section will provide demographic information for Sussex Tech and the other public schools in Sussex County. The Sussex Tech Vocational Technical School District is comprised of one high school, Sussex Technical High School. Sussex Tech has 18 CTE courses in addition to academic courses, electives, CTE-related courses, and robust adult education programs. There are two other vo-tech districts in Delaware: New Castle County Vocational Technical School District (NCCVT) with four high schools and POLYTECH School District (POLYTECH) with one high school. The Delaware Pathways initiative exists in traditional high and middle schools. Delaware Pathways prepares students to earn a two- or four-year degree and/or professional certificate. For the Pathways program, at a minimum, students must take three sequential classes in a

designated pathway. Comparatively, at a vo-tech high school in Delaware, a student must take three consecutive years of coursework.

Public education in Sussex County is delivered by seven comprehensive school districts, one countywide vo-tech school district, and one charter school. In total, for the 2021–2022 school year, 33,305 students received an education in Sussex County public schools.<sup>1</sup> Of the students receiving a public education in Sussex County, there are 30,879 students (92.7%) at a comprehensive school district, 1,306 students (3.9%) at Sussex Tech, and 1,120 students (3.4%) at Sussex Academy.

The following tables provide demographics for students in public school in Sussex County, a five-year review of student characteristics at Sussex Tech, and the Sussex Tech student population compared to the state and counties in the 2021–22 school year. Enrollment numbers are determined by the September 30th count each year. There were 1,306 students enrolled in Sussex Tech in the 2021–22 school year.

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<sup>1</sup> Numbers do not include private and homeschooled students or students who choice into a public school in another county.



Table 6. Demographics for Sussex County Public School Students by High School, 2021–22 School Year

<i>District</i>	<i>School</i>	<i>Total Students</i>	<i>Percent English Learner</i>	<i>Percent from Low- Income Families</i>	<i>Percent Students with Disabilities</i>	<i>Percent Black or African American</i>	<i>Percent Hispanic or Latino</i>	<i>Percent White or Caucasian</i>	<i>Percent Other</i>
Cape Henlopen	Cape Henlopen High School	1,713	4.0%	14.7%	12.8%	10.80%	15.9%	66.7%	6.6%
Delmar	Delmar High School	659	3.3%	9.0%	7.0%	15.02%	10.2%	65.3%	9.6%
Indian River	Indian River High School	1,003	8.1%	12.6%	13.8%	7.98%	26.1%	61.0%	4.9%
Indian River	Sussex Central High School	1,916	19.6%	20.2%	15.2%	12.42%	44.4%	37.8%	5.4%
Laurel	Laurel Senior High School	729	8.1%	34.2%	18.2%	25.65%	16.6%	50.2%	7.5%
Milford	Milford Senior High School	1,173	12.5%	26.3%	17.0%	25.23%	23.1%	46.2%	5.5%
Seaford	Seaford Senior High School	805	16.2%	32.1%	18.9%	34.91%	27.9%	31.1%	6.1%
Sussex Academy	Sussex Academy (K–12)	1,120	3.6%	4.9%	4.6%	3.30%	13.9%	73.3%	9.5%
Sussex Technical	Sussex Technical High School	1,306	2.4%	17.8%	10.0%	17.92%	19.2%	55.5%	7.4%
Woodbridge	Woodbridge High School	695	11.1%	31.2%	19.9%	26.62%	28.4%	39.9%	5.2%

Source: Delaware Report Card, Delaware Department of Education, 2022

Table 7. Sussex County Vocational Technical School District Student Characteristics

	2018	2019	2020	2021	2022
<b>Gender</b>					
Female	Not available	Not available	Not available	53%	53%
Male	Not available	Not available	Not available	47%	47%
<b>Race and Ethnicity</b>					
African American	13.1%	12.6%	14.6%	16%	17.9%
Asian American	2.1%	2.3%	1.7%	1.3%	1.1%
Hispanic/Latino	13.2%	13.6%	14.7%	17.4%	19.2%
Multi-Racial	5.2%	5.6%	6.7%	6.9%	5.1%
Native Hawaiian/Pacific Islander	0.1%	0.2%	0.2%	0.2%	0.2%
White or Caucasian	66.0%	64.8%	61.2%	57.6%	55.5%
<b>Student Groups</b>					
English Learners	Not available	Not available	Not available	1.7%	2.4%
Students with Disabilities	Not available	Not available	Not available	9.8%	10.0%
Students from Low-Income Families	Not available	Not available	Not available	19.0%	17.8%

Source: Delaware Report Card, Delaware Department of Education, 2022

Table 8. Sussex County Vocational Technical School District Student Characteristics Compared to State and Counties 2020–21

	Sussex Tech	Sussex County	Kent County	New Castle County	Delaware
<b>Gender</b>					
Female	53%	48.9%	48.9%	48.9%	48.9%
Male	47%	51.1%	51.1%	51.1%	51.1%
<b>Race and Ethnicity</b>					
American Indian or Alaskan Native	< 1%	< 1%	< 1%	< 1%	< 1%
African American	16%	16.3%	33.1%	33.9%	30.1%
Asian American	1.3%	1.4%	1.9%	6.3%	4.3%
Hispanic/Latino	17.4%	25.4%	11.4%	18.4%	18.3%
Multi-Racial	6.9%	4.8%	5.9%	4.1%	4.6%
Native Hawaiian/Pacific Islander	0.2%	< 1%	< 1%	< 1%	< 1%
White or Caucasian	57.6%	51.5%	47.2%	36.8%	42.3%
<b>Student Groups</b>					
Students from Low-Income Families	19.0%	26.5%	29.2%	25.8%	26.7%
English Learners	1.7%	14.9%	6.1%	9.6%	9.9%
Students with Disabilities	9.8%	15.7%	17.3%	16.9%	16.8%

Source: Delaware Report Card, Delaware Department of Education, 2022; Redding Consortium for Educational Equity Data Report, 2020

Over the past five years, the student population at Sussex Tech has gone from 66 percent white students to about 55 percent white students with an increase in the Hispanic/Latino and African American student populations. Compared to Sussex County, Sussex Tech has more African American students than are represented in the County and comparable representation for Hispanic/Latino students, White students, and students from low-income families. Sussex Tech is underrepresented in English Learners and Students with Disabilities compared to the county.

## Student Performance

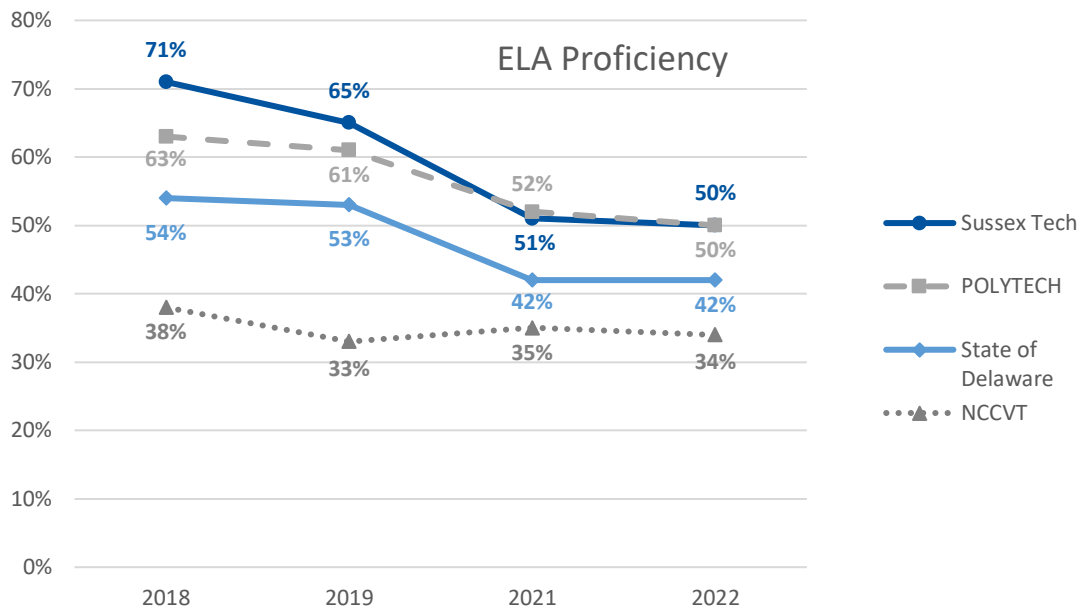
The following section provides a brief comparison of student performance at Sussex Tech to public schools in the state, POLYTECH, and NCCVT. The most widely used measure of academic, teaching, and learning success is student performance on state standardized tests. The section provides data on student performance in English Language Arts (ELA) and Math; percent of students who are college and career ready; and four-year graduation rates (see definitions for college and career readiness on page 11).

Due to the disruptions caused by the COVID-19 pandemic, state testing was not administered in the 2019–20 school year. Local Education Agencies were required to administer the SBAC and SAT for the 2020–21 school year. Fewer students participated in the testing for a variety of reasons during the pandemic than in a typical academic year. Further, participation rates varied by region, school district, or charter. Due to these differences in participation, DDOE cautions against comparing the 2021 data directly to previous year data.<sup>2</sup>

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<sup>2</sup> The Delaware Department of Education’s full guidance on use of the 2021 data is published online at the following address: <https://www.doe.k12.de.us/cms/lib/DE01922744/Centricity/Domain/111/DDOE%20FAQ%20Impact%20on%20Assessment%202021.pdf>

Figure 1. Sussex County Vocational Technical School District ELA Proficiency Compared to State, POLYTECH, and New Castle County Vo-Tech, 4-Year Comparison

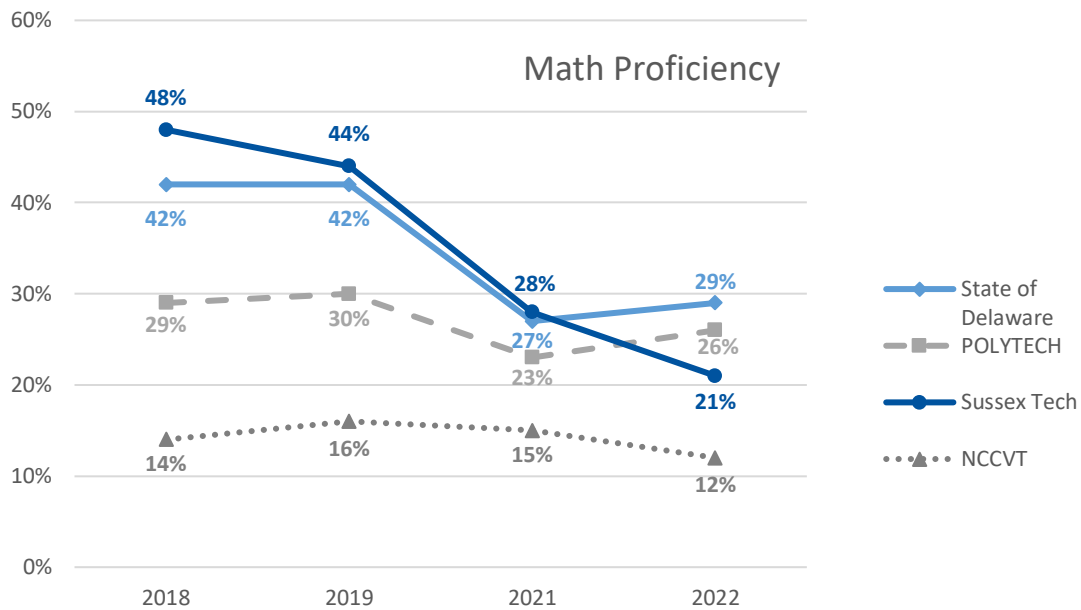


\*2020 data was included due to COVID-19

Source: Delaware Report Card, Delaware Report Card, Delaware Department of Education, 2022

Between 2018 and 2022, Sussex Tech has had a higher percentage of students meeting or exceeding the state standards in ELA than the statewide average and the NCCVT School District.

Figure 2. Sussex County Vocational Technical School District Math Proficiency Compared to State, POLYTECH, and New Castle County Vo-Tech, 4-Year Comparison



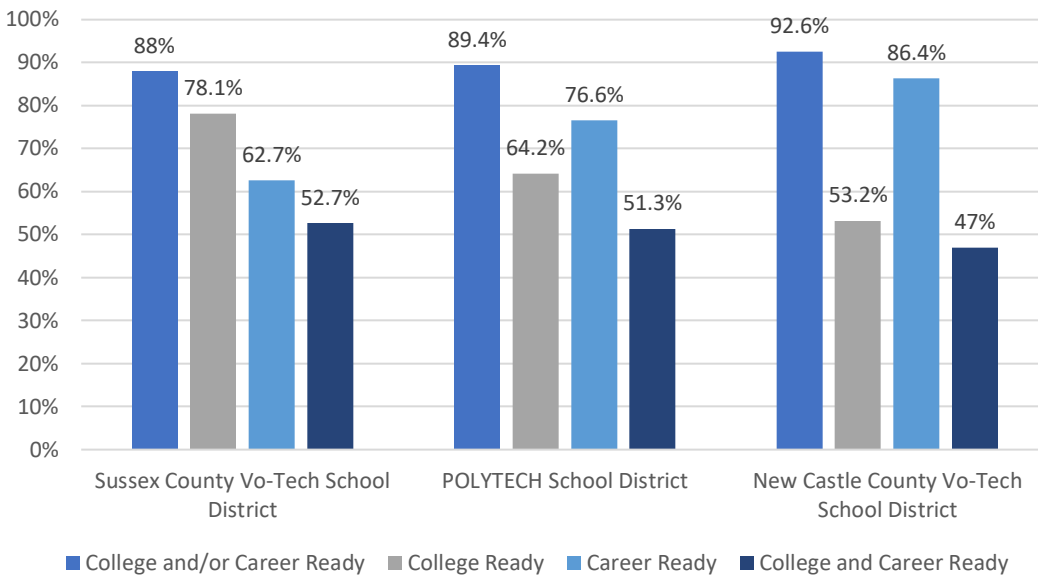
\*2020 data was not included due to COVID-19

Source: Delaware Report Card, Delaware Report Card, Delaware Department of Education, 2022

From 2018 to 2021, Sussex Tech had a higher percentage of students meeting or exceeding the state standards in math, compared to the statewide average, NCCVT, and POLYTECH. In 2022, the percentage of students meeting or exceeding the state standard was higher than NCCVT, but lower than the state of Delaware and POLYTECH.

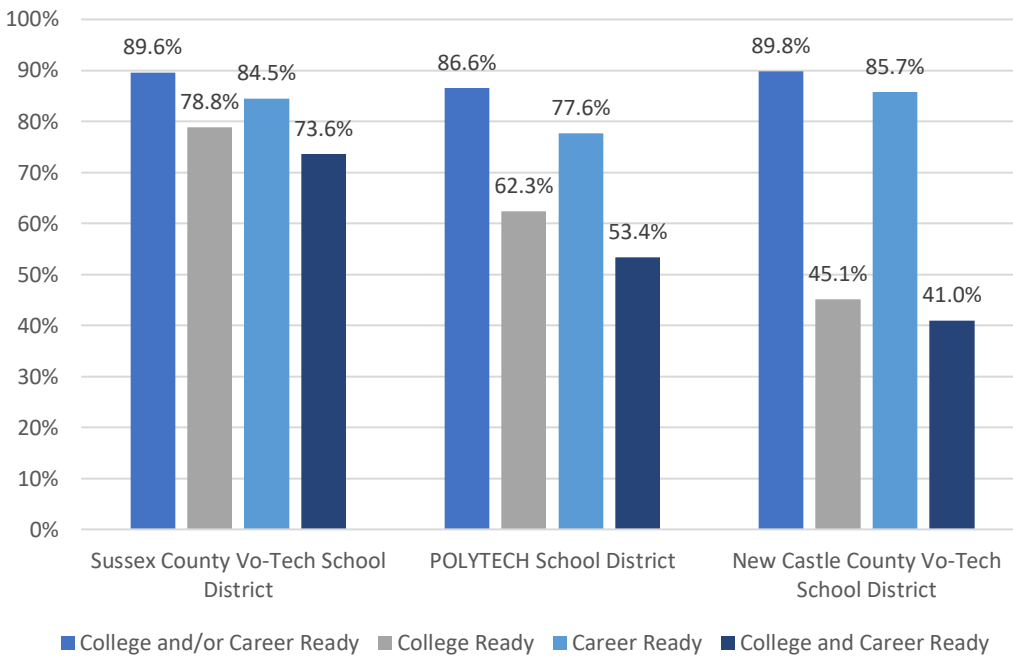
Figures 3 and 4 compare Sussex Tech’s college and career readiness metrics to POLYTECH and the NCCVT districts. These indicators can help Sussex Tech examine how well their programs prepare students for college and/or a career. For definitions of “College Ready,” “Career Ready,” “College and Career Ready,” and “College and/or Career Ready” see page 11.

Figure 3. Sussex County Vocational Technical School District College and Career Readiness Compared to POLYTECH and New Castle County Vo-Tech School Districts, 2018



Source: Delaware Report Card, Delaware Department of Education, 2022

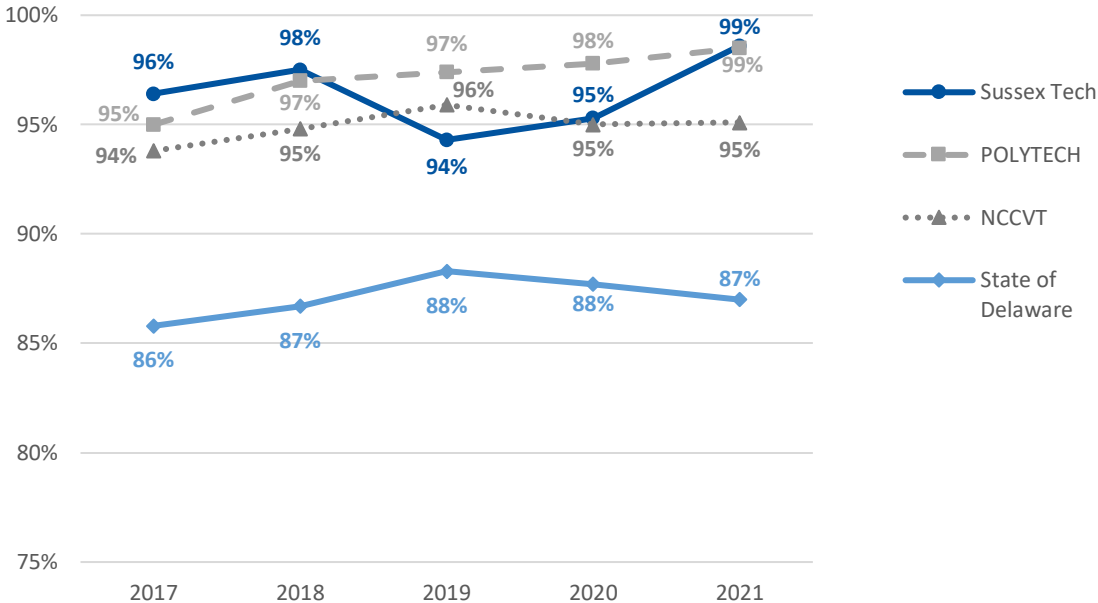
Figure 4. Sussex County Vocational Technical School District College and Career Readiness Compared to POLYTECH and New Castle County Vo-Tech School Districts, 2019



Source: Delaware Report Card, Delaware Department of Education, 2022

In 2018 and 2019, Sussex Tech had similar percentages of students who were College and/or Career Ready compared to NCCVT and POLYTECH. Notably, Sussex Tech has more students who are College Ready than the other two districts. At Sussex Tech from 2018 to 2019, there was a 21.8 percentage point increase in the number of students who were Career Ready (from 62.7% to 84.5%). The 2019 percent of students who were Career Ready (84.5%) more closely aligns with the percent of Career Ready students at POLYTECH and NCCVT.

Figure 5. Sussex County Vocational Technical School District 5-Year Graduation Rates Compared to State, POLYTECH, and New Castle County Vo-Tech, 2017–2021



Source: Delaware Report Card, Delaware Department of Education, 2022

Between 2017 and 2021, the four-year graduation rates for Sussex Tech have remained high and similar to the other vo-tech districts. Notably, Sussex Tech and the other vo-tech districts consistently have achieved higher graduation rates than the state average.

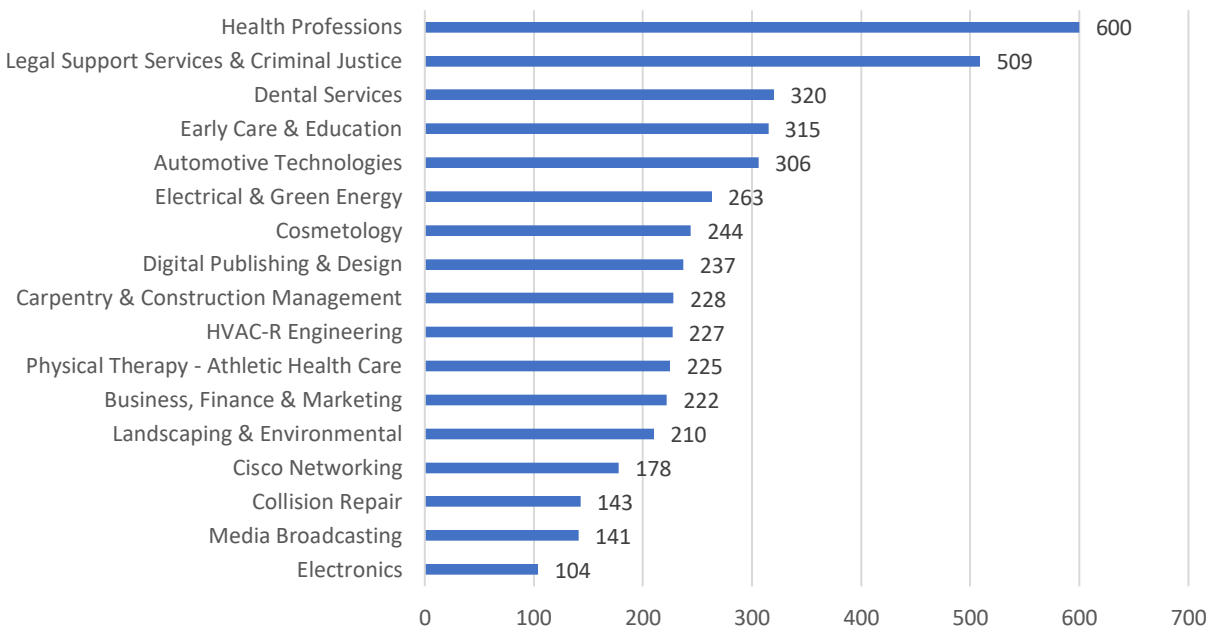
### Sussex Tech Enrollment and Work-Based Learning

Sussex Tech offers 18 CTE programs, academic courses, electives, CTE-related courses, a Work-Based Learning (WBL) program, and adult education programs. Sussex Tech recently added a Welding and Fabrication CTE program and data is not readily available for this program, therefore, most analysis will include 17 CTE program areas. This section provides an overview of Sussex Tech CTE, adult education, and WBL enrollment between 2018 and 2022, highlighting trends in enrollment and CTE comparisons across the state of Delaware.

The WBL program at Sussex Tech provides students with a hands-on experience in a real-world job setting. The purpose of WBL is to complement coursework and prepare students for the workforce as they work alongside professionals in the industry. The adult education programs at Sussex Tech include Apprenticeship Training, Driver’s Education, Groves High School (a state approved program where adults and out-of-school youth can earn a high school education and Delaware High School diploma), Health Care Professions, and English as a Second Language. At Sussex Tech, individuals can also earn their GED and receive rapid training to become a Certified Nursing Assistant or Home Healthcare Aide.

Over the past five years, the Health Professions program consistently had the highest student enrollment. Between 2019 and 2022, Electronics has had the lowest student enrollment.

Figure 6. Total Enrollment by CTE Program at Sussex Tech, 2018–2022



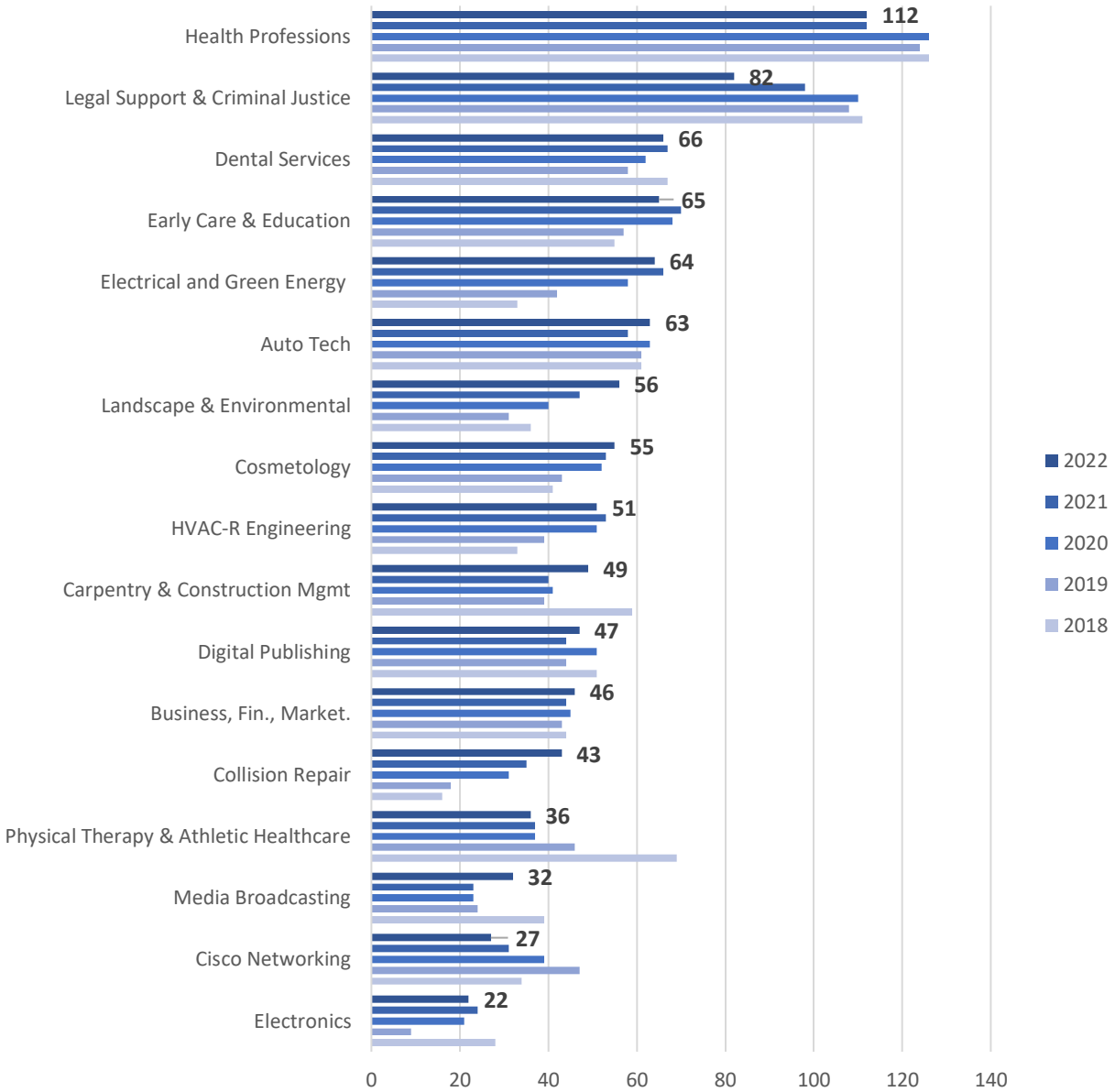
Source: Sussex County Vocational Technical School District, 2022

Figure 6 above shows the total enrollment of students in a CTE program between 2018 and 2022. The total enrollment for the CTE program was calculated by adding up the enrollment totals per year. Enrollment data for each CTE program is included later in this report.

Figure 7 below shows the total enrollment, per year, for each CTE program between 2018 and 2022. This figure illustrates the fluctuations in enrollment and popularity over time.



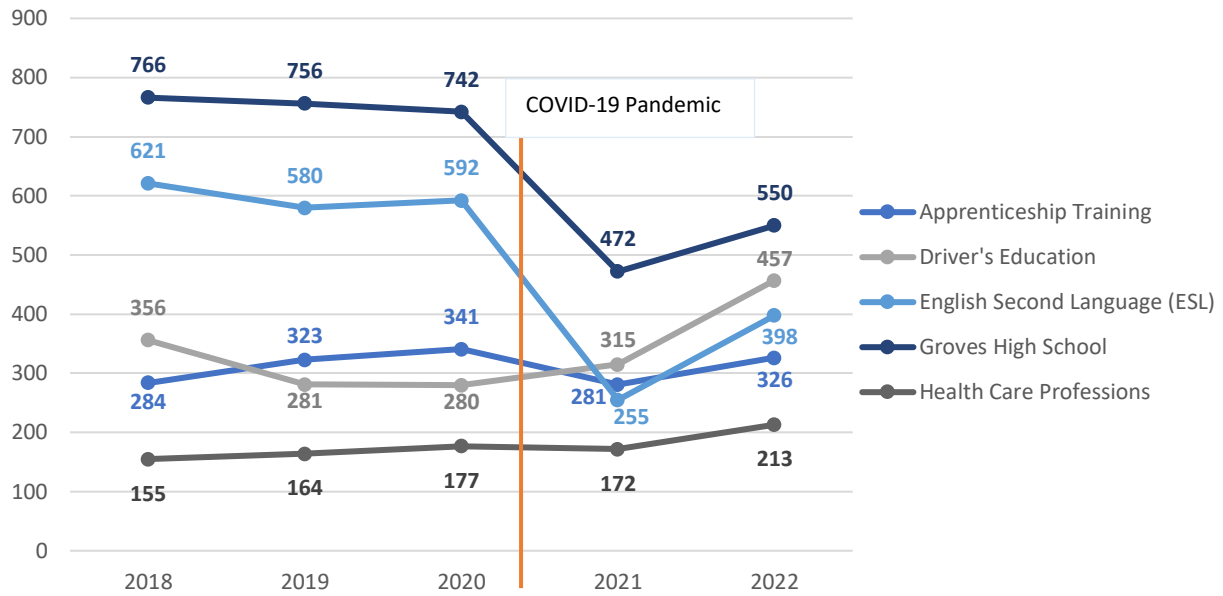
Figure 7. Total Enrollment by CTE Program, Per Year, 2018–2022\*



Source: Sussex County Vocational Technical School District, 2022

Figure 8 below shows adult education enrollment between 2018 and 2022. The most popular program for adult education enrollment is Groves High School. Enrollment has taken a dip in most programs since 2020, but Driver’s Education has consistently risen. Enrollment may have declined in adult education due to the pandemic and extra financial or familial burdens placed on individuals.

Figure 8. Sussex Tech Adult Education Enrollment, 2018–2022



Source: Sussex County Vocational Technical School District, 2022

Table 9 below provides a snapshot of the common CTE programs offered at all Delaware vo-tech districts. The table also shows the CTE programs that all counties except Sussex Tech offer. For a full list of CTE programs used for this analysis, see Appendix C. The full list includes 43 programs. Programs with similar names and purposes were only counted once, such as Legal Administrative Assistant and Legal Support Services.

Table 9 shows that out of 43 programs, **six programs are offered in all Delaware vo-tech districts and five programs are offered at POLYTECH and NCCVT but not at Sussex Tech.**

Table 9. Comparison Table, CTE Programs Offered in Delaware Vocational Technical School Districts

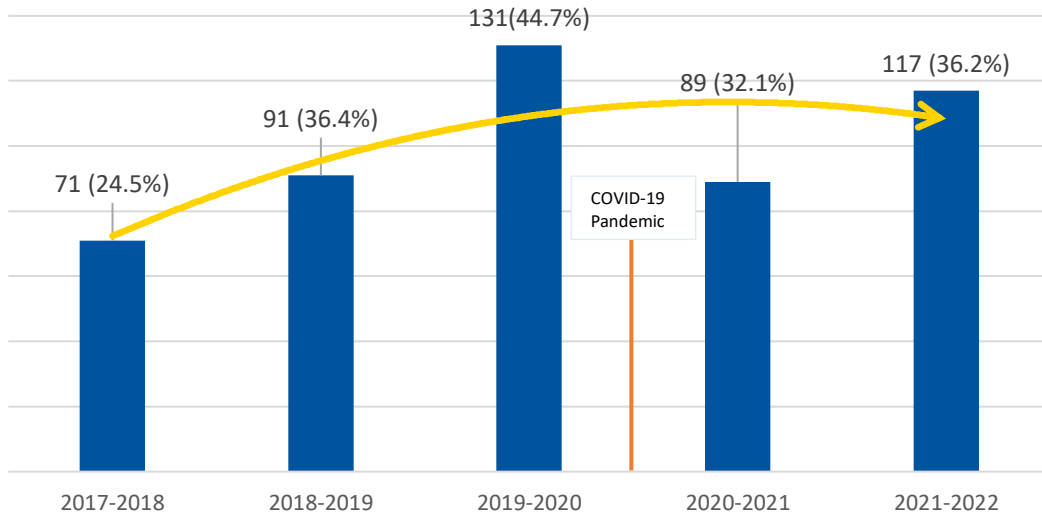
Program	Sussex Tech	POLYTECH	New Castle County Vo-Tech Schools			
			Delcastle	Hodgson	Howard	Sussex
Auto/Diesel Technologies	✓	✓	✓	✓	✓	✓
Carpentry & Construction Management	✓	✓	✓	✓	✓	✓
Cosmetology	✓	✓	✓	✓	✓	
Early Care & Education	✓	✓		✓		✓
Electrical & Green Energy	✓	✓	✓	✓		✓
Welding & Fabrication	✓	✓	✓			
Computer Science/Engineering/Programming	No	✓	✓			✓
Culinary Arts	No	✓	✓	✓	✓	✓
Masonry	No	✓	✓	✓		
Pre-Engineering	No	✓		✓		
Teacher Academy for K-12 Education	No	✓	✓		✓	

Source: Sussex County Vocational Technical School District; Delaware Department of Education, 2021  
 Note: Some programs have different names in different districts or were combined due to similarity.  
 Yellow highlight emphasizes the programs offered by all districts except Sussex Tech.

Figure 9 below shows the total number of seniors participating in WBL between school year 2017–18 and 2021–22. Participation was rising between 2017 and 2019, dipped in 2020, and is on the rise again. The dip during the 2020–21 school year may be a result of the pandemic

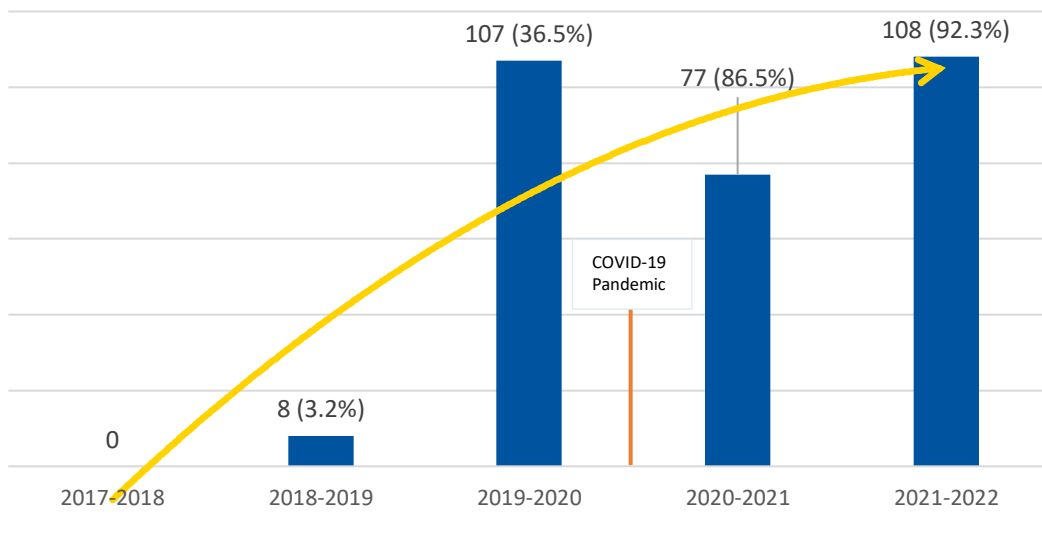
(students may have been unable to access in-person placements). The number of seniors participating in WBL is back to pre-pandemic level participation. In the 2021–22 school year, 108 of the 117 seniors participated in WBL for at least half the school day, as shown in Figure 10.

Figure 9. Total Number of Seniors Participating in Work-Based Learning, 2017–2022



Source: Sussex County Vocational Technical School District, 2022

Figure 10. Seniors in Work-Based Learning for at Least Half the School Day, 2017–2022



Source: Sussex County Vocational Technical School District, 2022

# Sussex Tech CTE Program Analysis and Labor Market Review

## Overview

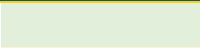






This section of the report provides a more in-depth look at the 18 Sussex Tech CTE programs offered, focusing on enrollment trends, industry certifications, occupational projections, labor market analysis, and key takeaways. There is also information included about CTE programs for Sussex Tech to consider.

One of the core purposes of Sussex Tech is to prepare students for success in the industry and job they study and train for while in high school. To ensure students are prepared for the job market, it is critical to provide them opportunities to earn recognized industry credentials and meet industry standards through coursework and WBL programs. There are numerous credentials that individuals can acquire; for each CTE program, this section of the report highlights the most common industry standards in the nation and across the Delaware vo-tech districts. NCCVT was omitted from the certification tables due to insufficient data. A list of publicly available information on NCCVT certifications is in Appendix B.

The labor market analysis focuses on 2020–2030 projections and emphasizes national, state of Delaware, Dover, Delaware, and Salisbury, Maryland, data. To analyze the labor market, information was pulled from the Occupational Information Network (ONET). ONET is the nation’s primary source of occupational information and has information on almost 1,000 occupations that span the entire U.S. economy.

The labor market analysis used data from a national “core occupation” defined by ONET that closely aligns with a Sussex Tech CTE Area. For example, the ONET national core occupation: **Automotive Service Technicians and Mechanics**, closely aligns with the Sussex Tech CTE program: **Automotive**

**Technologies**. The analysis includes information from the Automotive Service Technicians and Mechanics occupation as well as 10 related occupations. Providing data on related occupations gives a better sense of the outlook for specific jobs and how Sussex Tech can best prepare students to meet the demands of the job market. This information provides a clear picture for how an occupation is predicted to perform between 2020 and 2030. This key shows how the labor market analysis information is arranged.

<i>Projected Growth Nationally</i>	<i>Color/Symbol</i>
Faster than average	
Average	
Little or no change	
Slower than average	
Decline	
Bright Outlook	
Decline	

ONET definitions and U.S. Bureau of Labor Statistics (BLS) data informed the key takeaways for the labor market analysis. According to the BLS, the average job growth in Delaware between 2020 and 2030 is approximately 8.6 percent. Using ONET and BLS metrics, occupations with at least 10 percent growth are “fast growing.” Delaware careers with at least 30 annual job openings are considered to have “a large number of openings.” This number is estimated from ONET’s definition of “a large number of openings” and adjusted to the Delaware population.

The definitions used for key takeaways are listed below:

**Very Positive:** There are very positive indicators present and the occupation shows any of the following indicators of exceptional growth:

- More than half of the occupations listed are projected to be “fast growing” in Delaware, **OR**
- More than half of the occupations listed are projected to have at least 30 annual openings in Delaware

**Mostly Positive:** There are mostly positive indicators present, but the occupation does not show the indicators of exceptional growth or slowed growth present in the other categories.

**Mixed:** There are some positive indicators present, but the occupation shows any of the following indicators of decline or slow growth:

- 25 percent or more of the occupations listed are expected to decline, **OR**
- Fewer than two occupations are projected to be “fast growing” in Delaware, **OR**
- Fewer than two occupations are projected to have at least 30 annual openings in Delaware

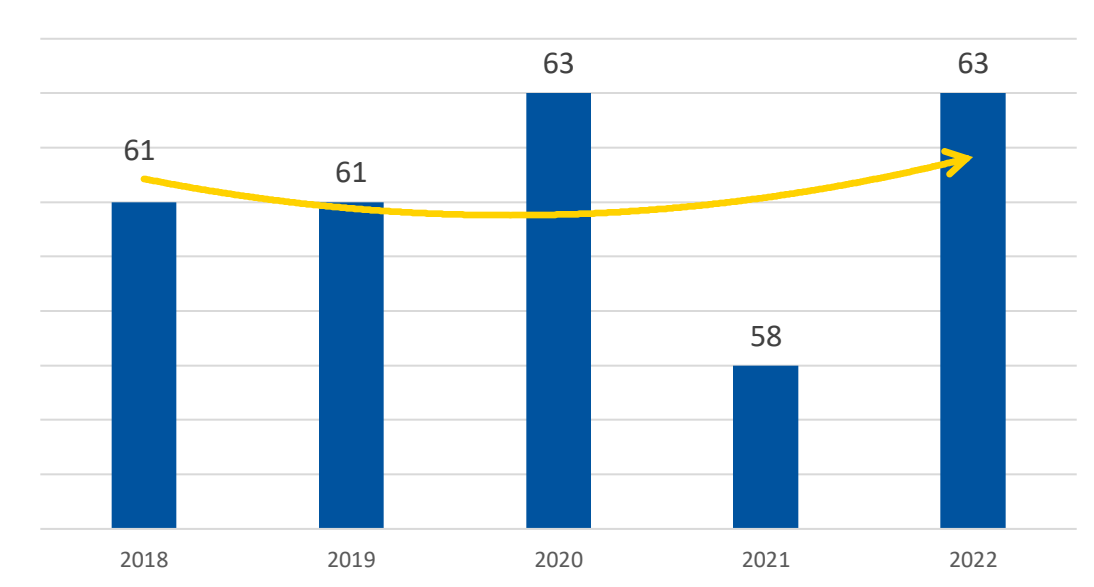
**Bright Outlook:** Occupations are defined as a “Bright Outlook” if they are projected to grow at least 10 percent from 2020 to 2030, are projected to have at least 100,000 openings over the ten-year period or are identified as emerging occupations due to technological advancements or breakthroughs.

## Automotive Technologies

Automotive technologies (Auto Tech) refers to the study of self-propelled vehicles or machines. These vehicles or machines can be standard automobiles, sports cars, tractor-trailers, marine vehicles, and more (Stoltz, 2021). At Sussex Tech, the automotive technologies course is designed to prepare students for careers in the auto/diesel industry. The automotive technologies unit covers operation and maintenance of auto, diesel, and engine systems. The unit provides insight on electrical, engine repair, engine performance, computer-controlled systems, heating, and air conditioning, steering and suspension, and brakes. During senior year, students can participate in WBL to gain work experience and learn valuable skills in a job setting. Potential careers in the automotive technologies field include auto/diesel technician, shop supervisor, and marine-engine repair technician.

All three Delaware vo-tech districts have an automotive technologies program. Figure 11 below highlights the 2018–2022 enrollment in Auto Tech. Enrollment for each year captures Sussex Tech students in Grades 10, 11, and 12. **Between 2018 and 2022, enrollment mostly remained consistent with a slight decline in 2021.**

Figure 11. Sussex Tech Automotive Technologies Enrollment, 2018–2022



Source: Sussex County Vocational Technical School District, 2022

## Industry Standards and Credentials

The National Institute for Automotive Service Excellence (ASE) is a nonprofit organization that tests and certifies automotive professionals. The ASE certification is widely recognized as the industry standard credential for automotive professionals. All three Delaware vo-tech districts

offer ASE certifications. For a list of national certifications related to automotive technologies occupations see Appendix A.

Table 10 below summarizes the certifications offered at Sussex Tech and POLYTECH and the certifications recognized by the Delaware Department of Education (DDOE). **For Auto Tech, Sussex Tech prepares students for 11 of the 16 certifications that DDOE recognizes and 10 certifications that align with POLYTECH.**

Table 10. Sussex Tech, POLYTECH, and DDOE Certifications—Automotive Technologies

<i>Certification</i>	<i>Sussex Tech</i>	<i>POLYTECH</i>	<i>DDOE</i>
ASE A4 Steering and Suspension	✓	✓	✓
ASE A5 Brakes	✓	✓	✓
ASE A6 Electrical/Electronic Systems	✓	✓	✓
ASE A8 Engine Performance	✓	✓	✓
ASE A1 Engine Repair	✓	✓	✓
ASE A3 Manual Drive Train/Axles	✓	✓	✓
ASE A9 Light Vehicle Diesel Engine	✓	✓	✓
ASE A7 Heating and Air Conditioning	✓	✓	✓
DE State Apprenticeship Advanced Placement	✓	✓	✓
Student Automotive Service Excellence (ASE)	✓	✓	✓
ASE G1 Automotive Maintenance & Light Repair	No	No	✓
ASE A2 Automatic Transmission/Transaxle	No	No	✓
ICEV EETC Principles of Small Engine Technology Certification	No	No	✓
National Automotive Technician Education Foundation (NATEF)	No	No	✓
Automotive Service Excellence (ASE)	✓	No	✓
CDL Written Test	No	No	✓

Source: Sussex County Vocational Technical School District; Delaware Department of Education, 2021

## Labor Market Analysis

The ONET national core occupation **Automotive Service Technicians and Mechanics** closely aligns with the Sussex Tech CTE Area **Automotive Technologies**. Table 11 below includes data on 10 occupations closely related to Automotive Service Technicians and Mechanics.

### *Emerging Industry Highlight—Electric Vehicles*

Closely related to automotive technologies is the electric vehicle (EV) industry. The use of EVs is rising exponentially and electric vehicle sales in the United States have increased 200 percent between 2020 and 2021 (Fischer, 2021). The current presidential administration has set a goal that by 2030 half of all new cars sold will be zero-emissions (electric, fuel cell, or hybrid electric) (Cage, 2022). If that goal is met, then by 2050, 60 to 70 percent of cars would be EVs. Many people are hesitant to purchase EVs due to the lack of infrastructure to charge and service them. The administration has made it a top priority to update and add new infrastructure



through the Infrastructure Investment and Jobs Act. Out of the \$1.2 trillion package, \$15 billion was allocated to speed up the adoption and market of EVs, \$7.5 billion was allocated to the construction of a national EV charging network and another \$7.5 billion to replace diesel busses and ferries. These investments will likely increase the adoption of EVs for both personal and commercial use.

Delaware is actively encouraging people to purchase EVs. The Delaware Department of Natural Resources and Environmental Control (DNREC) announced they will extend the Clean Vehicle Rebate Program through the end of 2022 (Delaware News, 2022). DNREC is offering a \$2,500 rebate for EVs under \$60,000 and a \$1,000 rebate for plug-in hybrid EVs under \$60,000 (Delaware News, 2022). The Delaware General Assembly has also recently passed Senate Bill 21, which allows state agencies to charge a fee for public or employee use of EV supply equipment that is installed by the agency (Delaware General Assembly, 2021).

Across the United States, community colleges are slowly adding EV maintenance as course offerings. Currently, there are no stand-alone EV maintenance programs at the high school level. Switch Vehicles Inc. (n.d.) has a program where students can build a street legal EV from scratch while learning mechanical and maintenance skills. The Switch Vehicle program has been implemented in a handful of schools nationwide (Switch Vehicles Inc, n.d.). If offered at Sussex Tech, EV technology and maintenance might match well with existing automotive technology programs.

## **Key Takeaways: Automotive Technologies**

**The outlook for occupations in the Automotive Technologies field is mostly positive.** There are several positive indicators in this field and few indicators to suggest slowing growth or decline. The emerging EV market presents an opportunity for the industry to grow in a way that is not captured by the current labor market projections.




Of the 11 occupations examined:

- Two occupations are projected to be fast growing occupations in Delaware from 2020 to 2030:
  - Motorboat Mechanics/Service Technicians (24%)
  - Control and Valve Installers, Except Mechanical Doors (12%\*)
- Three occupations have a large number of projected annual openings:
  - Automotive Service Technicians and Mechanics (193)
  - Bus and Truck Mechanics/Diesel Engine Specialists (60)
  - Automotive Body and Related Repairers (38)
- One occupation is considered by ONET to be a “Bright Outlook” occupation based on national trends (indicated by the sun symbol in Table 11).

- Two occupations are projected to decline nationally or in Delaware through 2030 (indicated by the red arrow in Table 11).

\*The projected growth is 12 percent, but there are only 3 annual openings between 2020 and 2030. The field may be growing, but job openings for Sussex Tech graduates are not guaranteed.

Table 11. Automotive Technologies Occupational Analysis

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
 Motorboat Mechanics and Service Technicians	24%	14	\$47,100 annual \$22.65 hourly	-	\$46,730 annual \$22.46 hourly	13% - Faster than average
Motorcycle Mechanics	-	-	-	-	-	10% - Average
Bus and Truck Mechanics and Diesel Engine Specialists	8%	60	\$48,390 annual \$23.27 hourly	\$47,590 annual \$22.88 hourly	\$47,170 annual \$22.68	8% - Average
Electric Motor, Power Tool, and Related Repairers	-	-	\$37,500 annual \$18.03 hourly	-	-	7% - Average
Automotive Engineering Technicians	-	-	\$37,020 annual \$17.80 hourly	-	-	6% - Average
Automotive Body and Related Repairers	4%	38	\$37,970 annual \$18.25 hourly	\$35,830 annual \$17.23 hourly	\$38,730 annual \$18.62 hourly	5% - Average
Rail Car Repairers	-	-	-	-	-	5% - Average
<b>Core Occupation: Automotive Service Technicians and Mechanics</b>	1%	193	\$47,940 annual \$23.05 hourly	\$47,230 annual \$22.71 hourly	\$44,830 annual \$21.56 hourly	0% - Little or no change
Control and Valve Installers and Repairers, Except Mechanical Door	12%	3	\$61,800 annual \$29.71 hourly	\$60,890 annual \$29.27 hourly	\$61,190 annual \$29.42 hourly	2% - Slower than average
 Engine and Other Machine Assemblers	-	-	-	-	-	-12% - Decline
 Electronic Equipment Installers and Repairers, Motor Vehicles	-	-	\$53,030 annual \$25.50 hourly	-	-	-16% - Decline

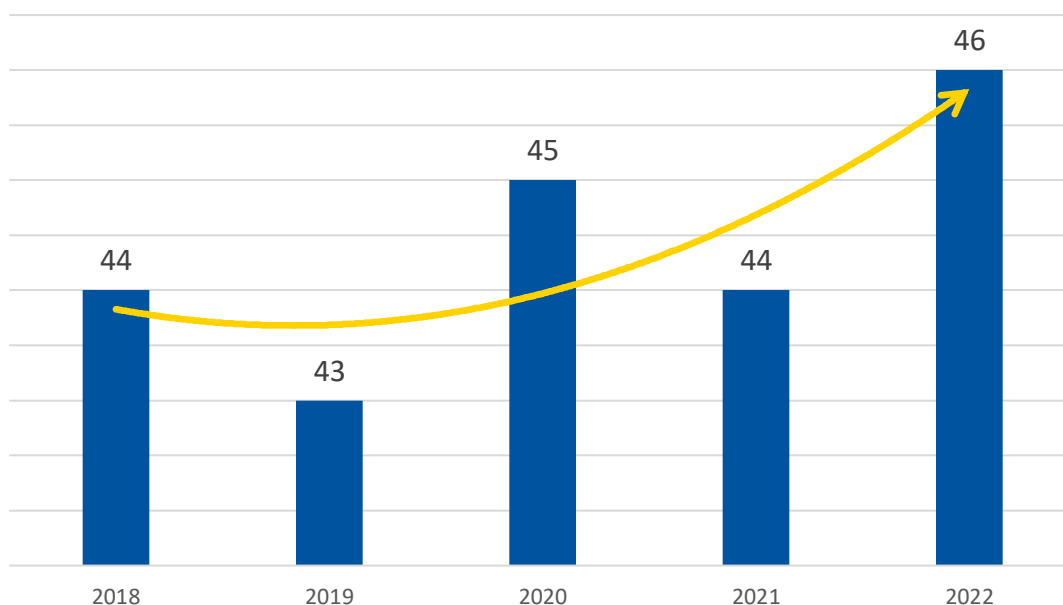
Source: Occupational Information Network, 2021; (-) = no data available

## Business, Finance, and Marketing Technologies

Business, Finance, and Marketing (BFM) Technologies refer broadly to the practical skills needed in the competitive business environment and the common technologies used in the business setting. At Sussex Tech, the program is designed to build a strong foundation in business fundamentals, such as personal finance, accounting, marketing, and management, through practice with software and other innovations used in the business world. In addition to business fundamentals, the program includes virtual simulations and discussions of real-world business scenarios, supplemented by engagement with outside business partners and a WBL internship experience. Through the program fundamentals and related electives, students are exposed to a variety of fields and are set up to pursue careers or further education in a broad scope of areas. Potential careers in the BFM Technologies field include officer manager, systems analyst, and accountant.

Sussex Tech and NCCVT have programs related to business, finance, and marketing, while POLYTECH does not. Figure 12 below highlights the 2018–2022 enrollment in BFM. Enrollment for each year captures students in Grades 10, 11, and 12. **Between 2018 and 2022, enrollment has remained consistent, remaining between 43 and 46 students.**

Figure 12. Sussex Tech Business, Finance, and Marketing Technologies Enrollment, 2018–2022



Source: Sussex County Vocational Technical School District, 2022

## Industry Standards and Credentials

Microsoft Office is a family of software used in the office setting and BFM careers. The Microsoft Office suite is often marketed as “Microsoft 365,” a collection of 23 cloud-based applications. The company offers 80 certification courses and examinations under the Microsoft Office and Office 365 banners. There are free online courses leading to these certifications, but the exams to become certified cost \$100 or more as of June 2022.

Intuit is an American business software company specializing in financial software. They are the creators of QuickBooks, a double-entry accounting program designed for small businesses. As of 2021, QuickBooks and QuickBooks online represent over 75 percent of the market share in accounting software. The QuickBooks Certified User (QBCU) certification is administered by Intuit partner Real World Training and officially recognized by Intuit. For a full list of national certifications related to BFM occupations see Appendix A.

Table 12 listed below summarizes the certifications offered at Sussex Tech and certifications recognized by DDOE. **Sussex Tech prepares students for one of the eight certifications that DDOE recognizes.**

Table 12. Sussex Tech and DDOE Certifications—Business, Finance, and Marketing Technologies

<i>Certification</i>	<i>Sussex Tech</i>	<i>DDOE</i>
Microsoft Office Specialist: Word	✓	No
Microsoft Office Specialist: Word Expert	✓	No
Microsoft Office Specialist: PowerPoint	✓	No
Microsoft Office Specialist: Excel	✓	No
Microsoft Office Specialist: Excel Specialist	✓	No
Precision Exams: Accounting I	✓	No
Precision Exams: Accounting II	✓	No
Principles of Accounting	No	✓
Certiport MOS Excel Certification	No	✓
Precision Business Management Exam	No	✓
Intuit QuickBooks QBCU Certifications	✓	✓
iCEV Express Business Professionals Business Office Technology Cert	No	✓
iCEV Express Business Professionals Career Preparedness Cert	No	✓
HubSpot Inbound	No	✓
Website Portfolio	No	✓

Source: Sussex County Vocational Technical School District; Delaware Department of Education, 2021

## Labor Market Analysis

For this section, there are three core occupations that closely align with the **Sussex Tech CTE Area: Business, Finance, and Marketing Technologies**. These occupations are listed below. To provide more in-depth information, Table 13 below also has data on 14 occupations closely related to the following occupations:

1. **Bookkeeping, Accounting, and Auditing Clerks**
2. **Office Clerks**
3. **Information Technology Project Managers**

## Key Takeaways: Business, Finance, and Marketing Technologies

**The outlook is mixed for careers in the Business, Finance, and Marketing Technologies Field.** Though the large number of job openings in most of the occupations is a strong positive indicator, seven occupations, including two core occupations, are projected to decline over time.








Of the 17 occupations examined:





- Three occupations are projected to be fast growing occupations in Delaware from 2020 to 2030:
  - Software Developers (21%)
  - Medical Secretaries and Administrative Assistants (15%)
  - Management Analysts (13%)
- Thirteen occupations have a large number of projected annual openings in Delaware. The top three are:
  - Bookkeeping, Accounting, and Auditing Clerks (658)
  - Medical Secretaries and Administrative Assistants (650)
  - Office Clerks (648)
- Seven occupations are considered by ONET to be “Bright Outlook” occupations based on national trends (indicated by the sun symbol in Table 13).
  - Office Clerks and Bookkeeping, Accounting, and Auditing Clerks are Bright Outlooks due to their large projected annual openings, even though their growth is projected to decline
- Seven occupations are projected to decline nationally or in Delaware through 2030 (indicated by the red arrow in Table 13).

Certifications:

- Sussex Tech prepares students for one of the eight certifications that DDOE recognizes.

Table 13. Business, Finance, and Marketing Technologies Occupational Analysis

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
 Software Developers	21%	601	\$108,440 annual \$52.13 hourly	\$96,220 annual \$46.26 hourly	\$101,580 annual \$48.84 hourly	22% - Faster than average
 Management Analysts	13%	355	\$79,650 annual \$38.29 hourly	\$64,000 annual \$30.77 hourly	\$67,500 annual \$32.45 hourly	14% - Faster than average
 Medical Secretaries and Administrative Assistants	15%	650	\$37,450 annual \$18.01 hourly	\$35,060 annual \$16.86 hourly	\$35,420 annual \$17.03 hourly	11% - Faster than average
 Computer and Information Systems Managers	8%	143	\$162,150 annual \$77.96 hourly	\$117,330 annual \$56.41 hourly	\$129,680 annual \$62.35 hourly	11% - Faster than average
Administrative Services & Facilities Managers	7%	71	\$131,030 annual \$62.99 hourly	\$118,290 annual \$56.87 hourly	\$95,290 annual \$45.81 hourly	9% - Average
<b>Core Occupation: Information Technology Project Managers</b>	-	-	\$101,000 annual \$48.56 hourly	\$77,290 annual \$37.16 hourly	\$82,630 annual \$39.73 hourly	9% - Average
Computer Systems Engineers/Architects	-	-	\$101,000 annual \$48.56 hourly	\$77,290 annual \$37.16 hourly	\$82,630 annual \$39.73 hourly	9% - Average
Project Management Specialists	4%	183	\$101,760 annual \$48.93 hourly	\$92,290 annual \$44.37 hourly	\$77,500 annual \$37.26 hourly	6% - Average
 Receptionists and Information Clerks	2%	305	\$29,430 annual \$14.15 hourly	\$26,970 annual \$12.97 hourly	\$28,600 annual \$13.75 hourly	4% - Slower than average
Billing and Posting Clerks	3%	180	\$46,920 annual \$22.56 hourly	\$43,430 annual \$20.88 hourly	\$37,080 annual \$17.83 hourly	3% - Slower than average
  <b>Core Occupation: Office Clerks</b>	-3%	648	\$30,050 annual \$14.45 hourly	\$29,860 annual \$14.36 hourly	\$29,660 annual \$14.26 hourly	-2% - Decline

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
 <b>Core Occupation: Bookkeeping, Accounting, and Auditing Clerks</b>	-3%	658	\$46,910 annual \$22.55 hourly	\$38,250 annual \$18.39 hourly	\$40,430 annual \$19.44 hourly	-3% - Decline
 Credit Authorizers, Checkers, and Clerks	-	-	\$48,600 annual \$23.36 hourly	-	-	-5% - Decline
 Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	-20%	113	\$41,290 annual \$19.85 hourly	\$37,250 annual \$17.91 hourly	\$37,080 annual \$17.83 hourly	-8% - Decline
 Brokerage Clerks	-11%	21	\$62,570 annual \$30.08 hourly	-	-	-10% - Decline
 File Clerks	-14%	37	\$28,990 annual \$13.94 hourly	\$30,310 annual \$14.57 hourly	\$29,680 annual \$14.27 hourly	-13% - Decline
 Payroll and Timekeeping Clerks	-13%	42	\$48,310 annual \$23.23 hourly	\$45,640 annual \$21.94 hourly	\$38,200 annual \$18.37 hourly	-13% - Decline

Source: Occupational Information Network, 2021; (-) = no data available

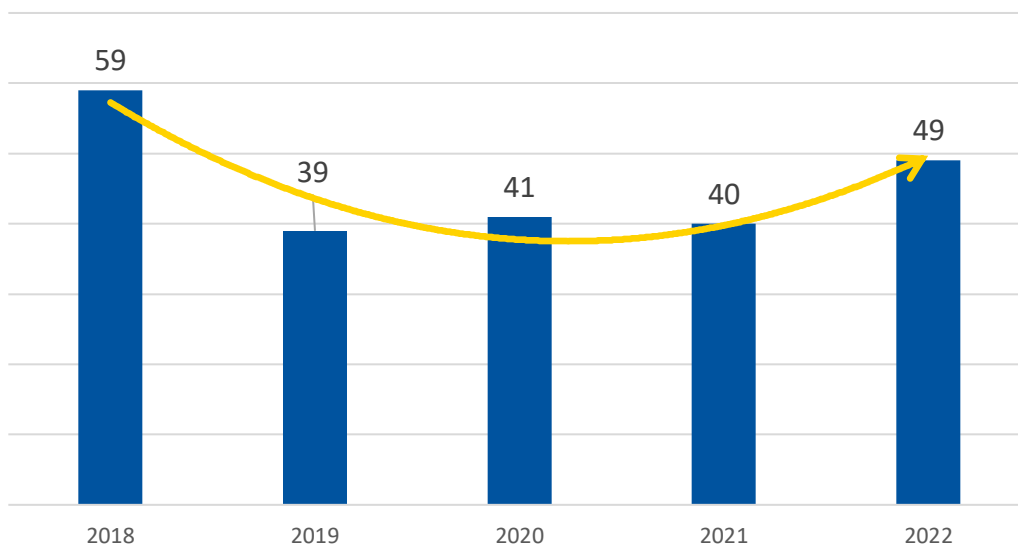


## Carpentry and Construction Management

The carpentry and construction management field requires individuals to operate construction and building machinery, use hands-on and technical skills, and learn project management skills and the ability to move from a blueprint to a finalized project. At Sussex Tech, the program is designed to provide students with the knowledge and skills for employment in residential, commercial, and industrial construction trades. Students build a new home from the foundation as part of the program, and they have the option of specializing in mill and cabinet carpentry to learn the technical skills of fine craftsmanship. Potential careers in Carpentry and Construction Management include roofing and siding, contracting, and tile setting.

All three Delaware vo-tech districts have a Carpentry and Construction Management program. Figure 13 below highlights the 2018–2022 enrollment in Carpentry & Construction Management. Enrollment for each year captures students in Grades 10, 11, and 12. **Between 2018 and 2022, enrollment mostly declined with a slight uptick in 2022.**

Figure 13. Sussex Tech Carpentry and Construction Management Enrollment, 2018–2022



Source: Sussex County Vocational Technical School District, 2022

### Industry Standards and Credentials

The U.S. Occupational Safety and Hazard Administration (OSHA) offers a training program that provides workers with basic and more advanced training about common safety and health hazards for jobs and their OSHA rights. The 10-hour training program is primarily intended for entry-level workers. The training emphasizes hazard identification, avoidance, control, and

prevention. Those who complete the training receive a Completion Card indicating their basic safety knowledge to potential employers.

The National center for Construction Education and Research (NCCER) is an education foundation formed in 1996 with the support of over 125 construction CEOs and academic leaders. NCCER has since evolved into curricula for more than 70 craft and maintenance areas with a centralized registry of qualified individuals. Curricula is distributed through Pearson, and leads to a final exam in the appropriate career areas. For a list of national certifications related to carpentry and construction occupations see Appendix A.

Table 14 listed below summarizes the certifications offered at Sussex Tech and POLYTECH and the certifications recognized by DDOE. For Carpentry and Construction Management, Sussex Tech prepares students for three of the five certifications that DDOE recognizes and one certification that aligns with POLYTECH.

Table 14. Sussex Tech, POLYTECH, and DDOE Certifications—Carpentry and Construction Management

<i>Certification</i>	<i>Sussex Tech</i>	<i>POLYTECH</i>	<i>DDOE</i>
OSHA 10	✓	✓	No
NCCER Core Curriculum	✓	No	✓
NCCER Carpentry Module Level 1	✓	✓	✓
DE State Apprenticeship Advanced Placement	✓	No	✓
NCCER Construction Technology Module Certifications	No	No	✓
iCEV Home Builders Association of Alabama Residential Const. Skills	No	No	✓

Source: Sussex County Vocational Technical School District; Delaware Department of Education, 2021

## Labor Market Analysis

To analyze the labor market for occupations related to carpentry and construction management, this report provides information on a national “core occupation” that closely aligns with a Sussex Tech CTE Area. For this section, the national **core occupations are Carpenters and Construction Managers**, which closely align with the **Sussex Tech CTE Area: Carpentry and Construction Management**. To provide more in-depth information, Table 15 below also has data on 10 occupations closely related to Carpenters and Construction Managers.





## Key Takeaways: Carpentry and Construction Management

**The outlook for careers in the Carpentry and Construction Management field is very positive.** More than half of the occupations have over 30 annual openings, in addition to strong growth in several occupations. Additionally, the core occupation is a “Bright Outlook” occupation.

Of the 12 occupations examined:

- Five occupations are projected to be fast growing occupations in Delaware from 2020 to 2030. The top three are:
  - Construction Managers (29%)
  - Structural Iron and Steel Workers (20%)
  - Supervisors of Construction Trades and Extraction Workers, including Solar Energy and Installation Managers (18%)
- Seven occupations have a large number of projected annual openings in Delaware. The top three are:
  - Carpenters (273)
  - Supervisors of Construction Trades and Extraction Workers, including Solar Energy and Installation Managers (273)
  - Construction Managers (84)
- One occupation is considered by ONET to be a “Bright Outlook” occupation based on national trends (indicated by the sun symbol in Table 15).
- Three occupations are projected to decline nationally or in Delaware through 2030 (indicated by the red arrow in Table 15).

Table 15. Carpentry and Construction Management Occupational Analysis

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
 <b>Core Occupation: Construction Managers</b>	29%	84	\$125,990 annual \$60.57 hourly	\$119,850 annual \$57.62 hourly	\$102,110 annual \$49.09 hourly	12% - Faster than average
Civil Engineers	7%	68	\$99,630 annual \$47.90 hourly	\$86,860 annual \$41.76 hourly	\$79,120 annual \$38.04 hourly	8% - Average
Structural Iron and Steel Workers	20%	44	\$54,470 annual \$26.19 hourly	\$61,240 annual \$29.44 hourly	-	6% - Average
First-Line Supervisors of Construction Trades and Extraction Workers	18%	273	\$77,030 annual \$37.03 hourly	\$75,120 annual \$36.12 hourly	\$61,820 annual \$29.72 hourly	6% - Average
Solar Energy Installation Managers	18%	273	\$77,030 annual \$37.03 hourly	\$75,120 annual \$36.12 hourly	\$61,820 annual \$29.72 hourly	6% - Average
Drywall and Ceiling Tile Installers	14%	20	\$45,780 annual \$22.01 hourly	-	\$45,780 annual \$22.01 hourly	5% - Slower than average
Sheet Metal Workers	-	-	\$61,300 annual \$29.47 hourly	\$61,930 annual \$29.77 hourly	\$44,220 annual \$21.26 hourly	4% - Slower than average
<b>Core Occupation: Carpenters</b>	16%	273	\$48,300 annual \$23.22 hourly	\$47,080 annual \$22.63 hourly	\$54,720 annual \$26.31 hourly	2% - Slower than average
Civil Engineering Technologists and Technicians	0%	31	\$48,220 annual \$23.19 hourly	\$45,420 annual \$21.84 hourly	\$46,740 annual \$22.47 hourly	2% - Slower than average
 Construction and Building Inspectors	2%	62	\$62,020 annual \$29.82 hourly	\$60,110 annual \$28.90 hourly	\$49,610 annual \$23.85 hourly	-3% - Decline
 Brickmasons and Blockmasons	1%	16	\$62,370 annual \$29.99 hourly	-	\$47,210 annual \$22.70 hourly	-5% - Decline
 Structural Metal Fabricators and Fitters	-2%	13	\$48,210 annual \$23.18 hourly	-	-	-11% - Decline

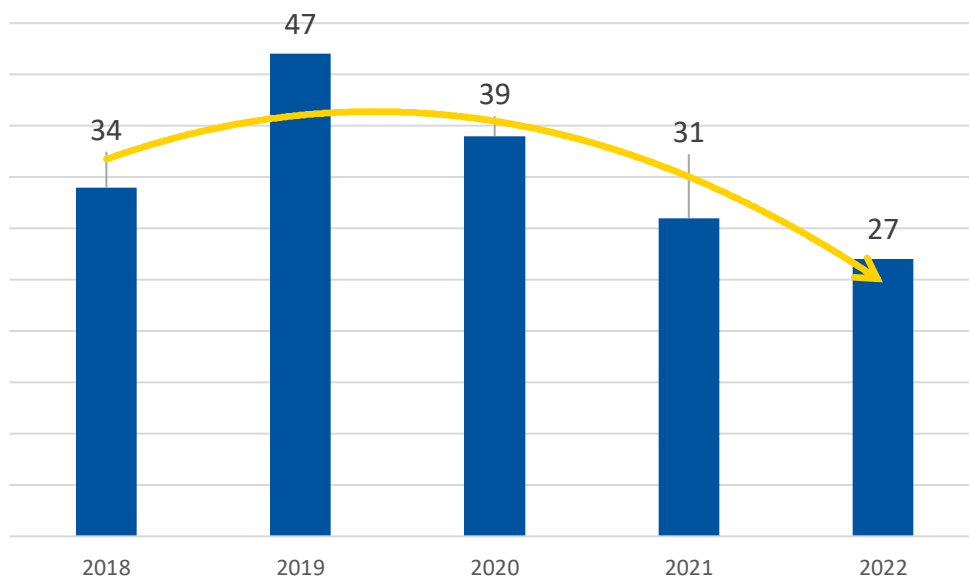
Source: Occupational Information Network, 2021; (-) = no data available

## Cisco Networking

The computer networking field refers to the practical skills needed to set up and manage computer hardware and network infrastructure. At Sussex Tech, the Cisco Networking program has students utilizing various pieces of Cisco hardware, the leading manufacturer for networking hardware, to design, build, and manage networks while collaboratively solving problems. The program leads to several important certifications in the field. Potential careers in networking include network administration, software development, and business analytics.

Sussex Tech and NCCVT have a Cisco/Computer Networking program, while POLYTECH does not. Figure 14 below highlights the 2018–2022 enrollment in Cisco Networking. Enrollment for each year captures students in Grades 10, 11, and 12. **Between 2018 and 2022, enrollment has mostly declined, with an uptick in 2019.**

Figure 14. Sussex Tech Cisco Networking Enrollment, 2018–2022



Source: Sussex County Vocational Technical School District, 2022

## Industry Standards and Credentials

CompTIA is an industry-leading certifier in the Information Technology field. The CompTIA A+ certification is the industry standard for establishing a career in IT. Students must complete two exams (Core 1 and Core 2) covering mobile devices, networking technology, hardware, virtualization, cloud computing, operating systems, security, software, and operational procedures. For a full list of national certifications related to Cisco/Computer Networking occupations see Appendix A.

Table 16 listed below summarizes the certifications offered at Sussex Tech and the certifications recognized by DDOE. POLYTECH does not have a Cisco Networking program, so that column was removed from the table. However, POLYTECH does have a Computer Engineering Technology program and offers the CompTIA A+ and CompTIA Network+ certifications. **For Cisco Networking, Sussex Tech prepares students for two of the nine certifications that DDOE recognizes.**

Table 16. Sussex Tech and DDOE Certifications—Cisco Networking

<i>Certification</i>	<i>Sussex Tech</i>	<i>DDOE</i>
TestOut PC Pro	✓	✓
CompTIA A+	✓	✓
CompTIA Network+	No	No
CCENT	No	✓
CCENT Routing and Switching	No	✓
Certiport for Security+, Network+, and Microsoft Technology Associate	No	✓
CompTIA IT Fundamentals	No	✓
Microsoft Exam 98-349 Windows OS	No	✓
Microsoft Exam 98-366 Networking Fundamentals	No	✓
MTA Security Fundamentals	No	✓

Source: Sussex County Vocational Technical School District; Delaware Department of Education, 2021

## Labor Market Analysis

To analyze the labor market for occupations related to Cisco networking, this report provides information on a national “core occupation” that closely aligns with a Sussex Tech CTE Area. For this section, the national **core occupation is Computer Network Support Specialists**, which closely aligns with the **Sussex Tech CTE Area: Cisco Networking**. To provide more in-depth information, Table 17 below also has data on 10 occupations closely related to Computer Network Support Specialists.

## Key Takeaways: Cisco Networking



**The outlook for the Cisco Networking field is very positive.** More than half of the occupations have over 30 annual openings, in addition to strong growth in two occupations.

Of the 11 occupations examined:

- Two occupations are projected to be fast growing occupations in Delaware from 2020 to 2030:

- Information Security Analysts (26%)
  - Software Developers (21%)
- Eight occupations have a large number of projected annual openings in Delaware. The top three are:
  - Software Developers (601)
  - Computer Systems Analysts (170)
  - Computer User Support Specialists (135)
- Two occupations are considered by ONET to be “Bright Outlook” occupations based on national trends (indicated by the sun symbol on Table 17).
- No occupations are projected to decline nationally or in Delaware through 2030.

Table 17. Cisco Networking Occupational Analysis

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
 Information Security Analysts	26%	78	\$102,410 annual \$49.23 hourly	-	\$96,070 annual \$46.19 hourly	33% - Faster than average
 Software Developers	21%	601	\$108,440 annual \$52.14 hourly	\$96,220 annual \$46.26 hourly	\$101,580 annual \$48.84 hourly	22% - Faster than average
Computer Systems Engineers/Architects	-	-	\$101,000 annual \$48.56 hourly	\$77,290 annual \$37.16 hourly	\$82,630 annual \$39.73 hourly	9% - Average
Computer User Support Specialists	7%	135	\$60,360 annual \$29.02 hourly	\$55,730 annual \$26.79 hourly	\$48,540 annual \$23.34 hourly	9% - Average
Information Security Engineers	-	-	\$101,000 annual \$48.56 hourly	\$77,290 annual \$37.16 hourly	\$82,630 annual \$39.73 hourly	9% - Average
<b>Core Occupation: Computer Network Support Specialists</b>	0%	34	\$60,360 annual \$29.02 hourly	\$50,500 annual \$24.28 hourly	\$61,150 annual \$29.40 hourly	8% - Average
Database Administrators	9%	73	\$82,480 annual \$39.66 hourly	\$62,620 annual \$30.11 hourly	\$77,340 annual \$37.18 hourly	8% - Average
Computer Systems Analysts	3%	170	\$99,340 annual \$47.76 hourly	\$90,780 annual \$43.64 hourly	\$94,810 annual \$45.58 hourly	7% - Average
Computer Network Architects	0%	34	\$131,410 annual \$63.18 hourly	\$89,070 annual \$42.82 hourly	\$117,380 annual \$56.43 hourly	6% - Average
Telecommunications Engineering Specialists	0%	34	\$131,410 annual \$63.18 hourly	\$89,070 annual \$42.82 hourly	\$117,380 annual \$56.43 hourly	6% - Average
Network and Computer Systems Administrators	2%	74	\$78,360 annual \$37.67 hourly	\$61,560 annual \$29.60 hourly	\$77,340 annual \$37.18 hourly	5% - Average

Source: Occupational Information Network, 2021; (-) = no data available

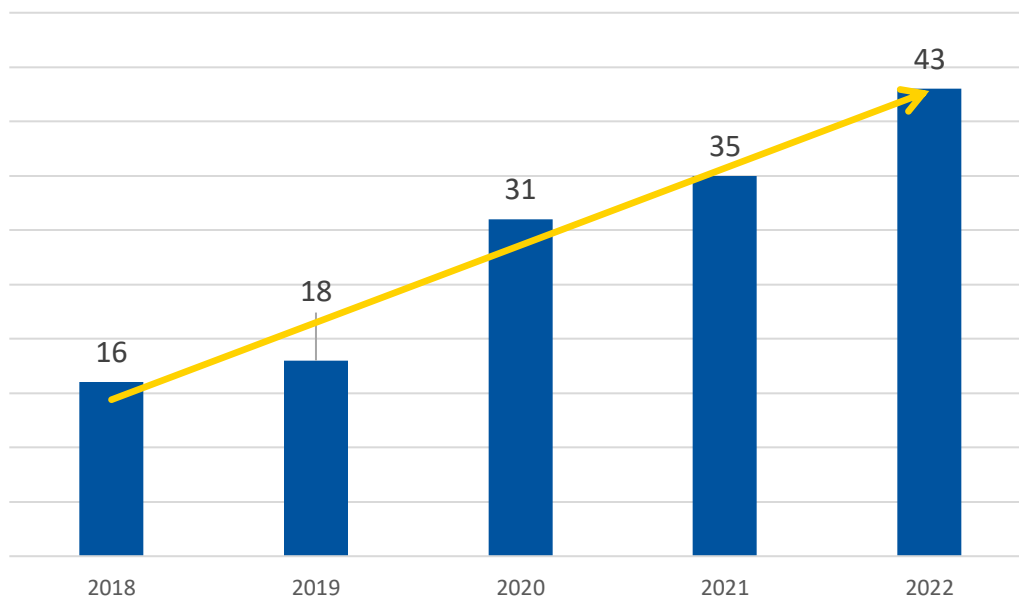


## Collision Repair Technologies

Collision Repair Technologies refers to the specific skills needed to repair the various components of vehicles damaged in accidents or crashes, including replacing and repairing, detailing, tear-down and reassembly, and preparation of new parts. At Sussex Tech, the collision repair technologies course is designed to prepare students for careers in the auto/diesel industry specifically related to repair. The unit includes an overview of shop safety, power hand tools, and industry standard equipment while learning techniques in painting, dent repair, plastic shaping, primer application, paint mixing, and painting with waterborne and solvent-based paints. During senior year, students can participate in WBL to gain work experience and learn valuable skills in a job setting. Potential careers in the Collision Repair Technologies field include collision repair technician, glass installer, and dealership body shop manager.

All three Delaware vo-tech districts have a Collision Repair/Auto Body Repair program. Figure 15 below highlights the 2018–2022 enrollment in Collision Repair. Enrollment for each year captures students in Grades 10, 11, and 12. **Between 2018 and 2022, enrollment has steadily increased.**

Figure 15. Sussex Tech Collision Repair Technologies Enrollment, 2018–2022



Source: Sussex County Vocational Technical School District, 2022

## Industry Standards & Credentials

As previously discussed in the Automotive Technologies section, the ASE certification is widely recognized as the industry standard credential for automotive professionals. For a full list of national certifications related to Collision Repair Technologies occupations see Appendix A.

Table 18 listed below summarizes the certifications offered at Sussex Tech and the certifications recognized by DDOE. **For Collision Repair, Sussex Tech prepares students for four of the seven certifications that DDOE recognizes.**

Table 18. Sussex Tech and DDOE Certifications—Collision Repair Technologies

Certification	Sussex Tech	DDOE
ASE B5 Mechanical & Electrical Components	✓	✓
ASE B3 Non-Structural Analysis & Damage Repair	✓	✓
ASE B2 Painting & Refinishing	✓	✓
ASE B4 Structural Analysis & Damage Repair	✓	✓
iCar Refinish Technician Platinum Path	no	✓
iCar Platinum	no	✓
ASE B6 Damage Analysis and Estimating	no	✓

Source: Sussex County Vocational Technical School District; Delaware Department of Education, 2021

## Labor Market Analysis

To analyze the labor market for occupations related to collision repair technologies, this report provides information on a national “core occupation” that closely aligns with a Sussex Tech CTE Area. For this section, the national **core occupation is Automotive Body and Related Repairers**, which closely aligns with the **Sussex Tech CTE Area: Collision Repair Technologies**. To provide more in-depth information, Table 19 below also has data on 10 occupations closely related to Automotive Body and Related Repairers.

## Key Takeaways: Collision Repair Technologies

**The outlook for the Collision Repair Technologies field is mixed.** Delaware-specific data for the related occupations were limited and inconclusive. Though there are some positive indicators, such as a strong number of job openings in three occupations, no occupations were “fast growing” in Delaware or nationally.

Of the 11 occupations examined:

- No occupations are projected to be fast growing occupations in Delaware or nationally from 2020 to 2030.
- Three occupations have a large number of projected annual openings in Delaware:
  - Automotive Service Technicians and Mechanics (193)

- Bus and Truck Mechanics and Diesel Engine Specialists (60)
- Automotive Body Repairers (38)
- No occupations are considered by ONET to be a “Bright Outlook” occupation based on national trends.
- Three occupations are projected to decline nationally or in Delaware through 2030 (indicated by the red arrow in Table 19).

#### Enrollment

- Between 2018 and 2022, enrollment has steadily increased.

Table 19. Collision Repair Technologies Occupational Analysis

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
Automotive Glass Installers and Repairers	-	-	-	-	-	9% - Average
Bus and Truck Mechanics and Diesel Engine Specialists	8%	60	\$48,390 annual \$23.27 hourly	\$47,590 annual \$22.88 hourly	\$47,170 annual \$22.68 hourly	8% - Average
Electric Motor, Power Tool, and Related Repairers	-	-	\$37,500 annual \$18.03 hourly	-	-	7% - Average
<b>Core Occupation: Automotive Body and Related Repairers</b>	4%	38	\$37,970 annual \$18.25 hourly	\$35,830 annual \$17.23 hourly	\$38,730 annual \$18.62 hourly	5% - Average
Rail Car Repairers	-	-	-	-	-	5% - Average
Motorcycle Mechanics	-	-	-	-	-	10% - Average
Automotive Service Technicians and Mechanics	1%	193	\$47,940 annual \$23.05 hourly	\$47,230 annual \$22.71 hourly	\$44,830 annual \$21.55 hourly	0% - Little or no change
Tire Builders	-	-	-	-	-	-1% - Little or no change
↓ Engine and Other Machine Assemblers	-	-	-	-	-	-12% - Decline

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
↓ Grinding and Polishing Workers, Hand	-	-	-	-	-	-14% - Decline
↓ Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	-	-	-	-	-	-16% - Decline

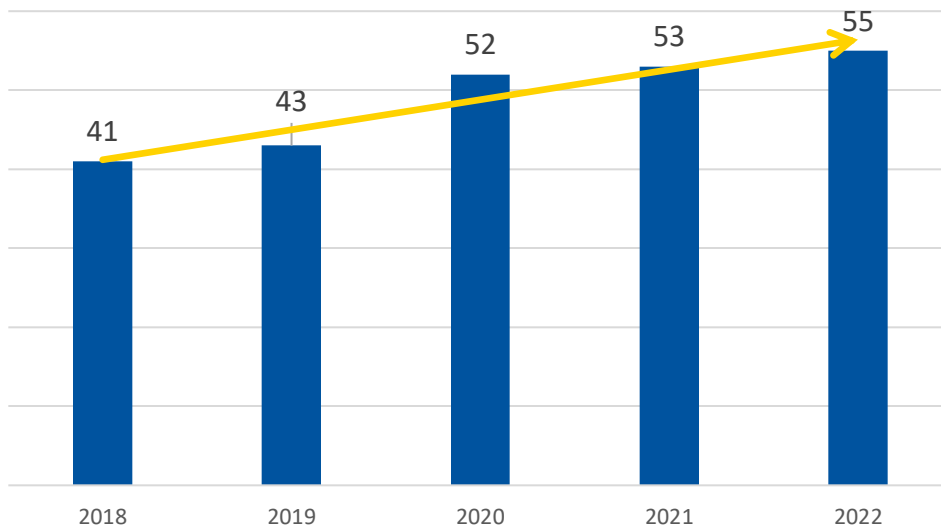
Source: Occupational Information Network, 2021; (-) = no data available

## Cosmetology

Cosmetology refers to the professional skill or practice of beautifying the face, hair, and skin. At Sussex Tech, students in the Cosmetology program are trained in current theory and techniques in shampooing, hair shaping, hair coloring, permanent waving, facials, scalp treatments, and manicuring. They are eligible to take the State Cosmetology Board Examination at the end of the program. Potential careers in the Cosmetology field include shampoo technician, make-up artist, and salon owner/manager.

All three Delaware vo-tech districts have Cosmetology program. Figure 16 below highlights the 2018–2022 enrollment in Cosmetology. Enrollment for each year captures students in grades 10, 11, and 12. **Between 2018 and 2022, enrollment has steadily increased.**

Figure 16. Sussex Tech Cosmetology Enrollment, 2018–2022



Source: Sussex County Vocational Technical School District, 2022

## Industry Standards and Credentials

Practicing as a Cosmetologist in the state of Delaware requires licensure from the Delaware Board of Cosmetology and Barbering. The Board develops standards for professional competency, promulgates rules and regulations, and adjudicates complaints against professionals when necessary. The Board regulates the areas of cosmetology, barbering, aesthetics, electrology, and nail technology. Licensure requires passing the state examination in addition to completing an educational program. The CTE program provides a direct path from school to working as a Cosmetologist. For a full list of national certifications related to automotive technologies occupations see Appendix A.

Table 20 listed below summarizes the certifications offered at Sussex Tech and POLYTECH and the certifications recognized by DDOE. **For Cosmetology, there is only one certification recognized by DDOE, and Sussex Tech and POLYTECH both prepare students for that certification.**

Table 20. Sussex Tech, POLYTECH, and DDOE Certifications—Cosmetology

<i>Certification</i>	<i>Sussex Tech</i>	<i>POLYTECH</i>	<i>DDOE</i>
DE State Cosmetology Board Certification: Practical and Theory	✓	✓	✓

Source: Sussex County Vocational Technical School District; Delaware Department of Education, 2021

## Labor Market Analysis

To analyze the labor market for occupations related to cosmetology, this report provides information on a national “core occupation” that closely aligns with a Sussex Tech CTE Area. For this section, the national **core occupation is Hairdressers, Hairstylists, and Cosmetologists**, which closely aligns with the **Sussex Tech CTE Area Cosmetology**. To provide more in-depth information, Table 21 below also has data on 10 occupations closely related to Hairdressers, Hairstylists, and Cosmetologists.

## Key Takeaways: Cosmetology

**The outlook for the Cosmetology field is mostly positive.** There are several positive indicators in this field, and no indicators to suggest slowing growth or decline.








Of the 11 occupations examined:

- Two occupations are projected to be fast growing occupations in Delaware from 2020 to 2030:
  - Hairdressers, Hairstylists, and Cosmetologists (26%)
  - Shampooers (26%)
- Three occupations have a large number of projected annual openings in Delaware:
  - Retail Salespersons (1,727)
  - Hairdressers, Hairstylists, and Cosmetologists (316)
  - Shampooers (34)
- Seven occupations are considered by ONET to be “Bright Outlook” occupations based on national trends (indicated by the sun symbol on Table 21).
- Two occupations are projected to decline nationally or in Delaware through 2030 (indicated in red on Table 21).

## Enrollment

Between 2018 and 2022, enrollment has steadily increased.

Table 21. Cosmetology Occupational Analysis

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
 Makeup Artists, Theatrical and Performance	-	-	-	-	-	37% - Faster than average
 Manicurists and Pedicurists	-	-	\$29,830 annual \$14.34 hourly	-	\$29,840 annual \$14.35 hourly	33% - Faster than average
 Shampooers	26%	34	\$22,850 annual \$10.99 hourly	-	\$24,440 annual \$11.75 hourly	30% - Faster than average
 Skincare Specialists	-	-	-	-	-	29% - Faster than average
 <b>Core Occupation: Hairdressers, Hairstylists, and Cosmetologists</b>	26%	316	\$30,740 annual \$14.78 hourly	\$27,780 annual \$13.36 hourly	\$29,420 annual \$14.14 hourly	19% - Faster than average
 Barbers	-	-	-	-	-	18% - Faster than average
Spa Managers	-	-	-	-	-	7% - Average
Fashion Designers	-	-	-	-	-	1% - Little or no change
 Retail Salespersons	9%	1,727	\$27,810 annual \$13.37 hourly	\$27,340 annual \$13.14 hourly	\$27,310 annual \$13.13 hourly	-1% Little or no change
 Tailors, Dressmakers, and Custom Sewers	7%	12	\$27,990 annual \$13.46 hourly	-	-	-7% - Decline
 Sewers, Hand	-	-	-	-	-	-10% - Decline

Source: Occupational Information Network, 2021; (-) = no data available

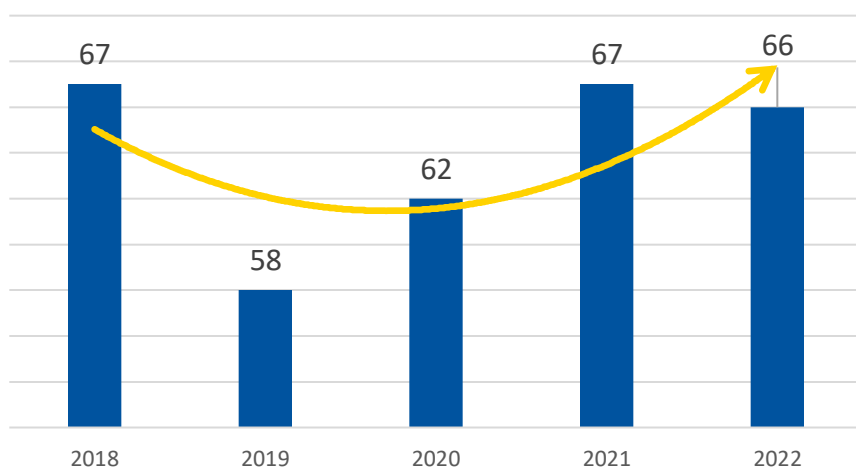


## Dental Services and Technologies

Dental assistants are essential staff members and work directly with dentists to examine and treat patients. Dental assistants typically prepare patients for treatment and perform technical procedures like digital radiographs, sterilization, and infection control. Dental assistants also ensure patient records and charts are accurate. The Dental Services and Technologies program at Sussex Tech is designed to prepare students to work as dental assistants and for various dental health care opportunities. Students will gain the knowledge and skills used by dental assistants, which will benefit them in the workplace or in postsecondary education fields such as dental hygiene. Students will also learn advanced skills that apply to other dentistry career fields. At Sussex Tech, students will learn and train in the classroom and in clinical settings, including in an on-site dental facility with modern equipment. Potential careers in the dental services and technology field include dental assistants, dental hygienists, and dental office administrators.

All three Delaware vo-tech districts have a Dental Services program. Figure 17 below highlights the 2018–2022 enrollment in Dental Services and Technology. Enrollment for each year captures students in Grades 10, 11, and 12. **Between 2018 and 2022, enrollment has varied. There was a decline in 2019, an increase from 2019 and 2021, and a slight decline in 2022.**

Figure 17. Sussex Tech Dental Services and Technologies Enrollment, 2018–2022



Source: Sussex County Vocational Technical School District, 2022

## Industry Standards and Credentials

The Dental Assisting National Board is the certifying organization for 16 of the 20 national certifications for Dental Assistants (ONET, Dental, 2021). For a full list of certifications related to dental professions see Appendix A.

Table 22 listed below summarizes the certifications offered at Sussex Tech and POLYTECH and the certifications recognized by DDOE. **For Dental Technologies, there are only two certifications recognized by DDOE, and Sussex Tech and POLYTECH both prepare students for those certifications.**

Table 22. Sussex Tech, POLYTECH, and DDOE Certifications—Dental Services and Technologies

<i>Certification</i>	<i>Sussex Tech</i>	<i>POLYTECH</i>	<i>DDOE</i>
Dental Assisting National Board—Radiology	✓	✓	✓
Heart Saver CPR Certification	✓	✓	✓

Source: Sussex County Vocational Technical School District; Delaware Department of Education, 2021

## Labor Market Analysis

To analyze the labor market for occupations related to dental services and technology, this report provides information on a national “core occupation” that closely aligns with a Sussex Tech CTE Area. For this section, the national **core occupation is Dental Assistants**, which closely aligns with the **Sussex Tech CTE Area: Dental Services and Technologies**. To provide more in-depth information, Table 23 below also has data on 10 occupations closely related to Dental Assistants.

## Key Takeaways: Dental Services and Technologies

**The outlook for the Dental Services and Technologies field is very positive.** In addition to other positive indicators, nearly all the related occupations are projected to be fast growing occupations. Additionally, the core occupation is a “Bright Outlook” occupation based on national trends.










Of the 11 occupations examined:

- Nine occupations are projected to be fast growing occupations in Delaware from 2020 to 2030. The top three are:
  - Physical Therapist Aides (28%)
  - Surgical Assistants (25%)
  - Medical Assistants (24%)
- Four occupations have a large number of projected annual openings in Delaware. The top three are:
  - Medical Assistants (424)
  - Dental Assistants (93)
  - Dental Hygienists (44)

- Nine occupations are considered by ONET to be “Bright Outlook” occupations based on national trends (indicated by the sun symbol in Table 23).

No occupations are projected to decline nationally or in Delaware through 2030.

Table 23. Dental Services and Technologies Occupational Analysis

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
 Physical Therapist Aides	28%	26	\$29,520 annual \$14.19 hourly	-	\$28,350 annual \$13.63 hourly	25% - Faster than average
 Medical Assistants	24%	424	\$36,470 annual \$17.54 hourly	\$30,000 annual \$14.42 hourly	\$34,090 annual \$16.39 hourly	18% - Faster than average
 Veterinary Technologists and Technicians	11%	36	\$36,360 annual \$17.48 hourly	\$45,840 annual \$22.04 hourly	\$36,690 annual \$17.64 hourly	15% - Faster than average
 Ophthalmic Medical Technicians	18%	22	\$37,390 annual \$17.97 hourly	-	\$36,420 annual \$17.51 hourly	14% - Faster than average
 Dental Laboratory Technicians	14%	18	\$46,500 annual \$22.36 hourly	-	-	12% - Faster than average
 <b>Core Occupation: Dental Assistants</b>	14%	93	\$45,110 annual \$21.69 hourly	\$40,590 annual \$19.51 hourly	\$36,750 annual \$17.67 hourly	11% - Faster than average
 Dental Hygienists	14%	44	\$80,080 annual \$38.50 hourly	\$77,450 annual \$37.24 hourly	\$78,340 annual \$37.66 hourly	11% - Faster than average
 Endoscopy Technicians	0%	0	-	-	-	11% - Faster than average
 Surgical Assistants	25%	20	\$48,320 annual \$23.23 hourly	-	-	11% - Faster than average

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
Ophthalmic Medical Technologists	-	-	\$48,080 annual \$23.12 hourly	\$45,790 annual \$22.01 hourly	\$43,250 annual \$20.79 hourly	9% - Average
Surgical Technologists	15%	25	\$48,350 annual \$23.25 hourly	-	\$46,440 annual \$22.33 hourly	9% - Average

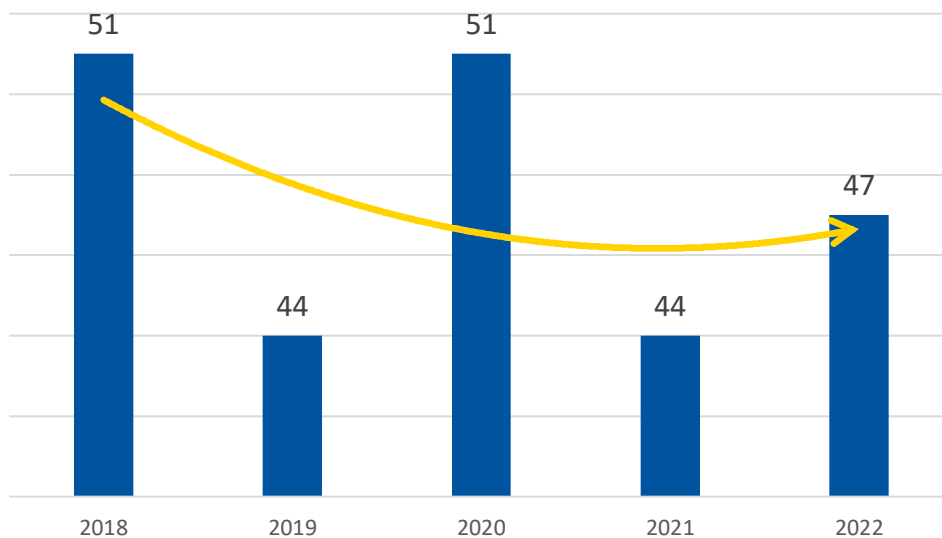
Source: Occupational Information Network, 2021; (-) = no data available

## Digital Publishing and Design Technologies

Digital publishing is the creation of digital content for digital consumption. For example, digital publishing can be used to make existing content from newspapers, magazines, or books, compatible with digital devices. This occupation group also involves making unique digital content such as videos, podcasts, infographics, and other digital advertising. The Digital Publishing and Design Technologies program at Sussex Tech prepares students to enter the graphic design industry and postsecondary design programs. The program focuses on the business applications of the industry, like advertising. Students learn the principles and practices of graphic design and how to use industry standard software such as Adobe InDesign, Photoshop, Illustrator, and Acrobat. Students leave with a portfolio and are prepared for entry level positions in the graphic design industry and postsecondary education programs. Potential careers include graphic designer, web designer/developer, and publication designer.

Sussex Tech and NCCVT have a Digital Publishing and Design Technologies program, while POLYTECH does not. Figure 18 below highlights the 2018–2022 enrollment in Digital Publishing and Design. Enrollment for each year captures students in Grades 10, 11, and 12. **Between 2018 and 2022 enrollment has varied, with declines in 2019 and 2021.**

Figure 18. Sussex Tech Digital Publishing and Design Technologies Enrollment, 2018–2022



Source: Sussex County Vocational Technical School District, 2022

## Industry Standards and Credentials

Adobe Systems Incorporated offer three of the seven national certifications for graphic designers (ONET, Graphic Designers, 2021). For a full list of certifications related to the graphic design occupation see Appendix A.

Table 24 listed below summarizes the certifications offered at Sussex Tech and POLYTECH and the certifications recognized by DDOE. **For Digital Publishing and Design Technologies, Sussex Tech offers four of the 14 certifications recognized by DDOE and none of the same certifications as POLYTECH.**

Table 24. Sussex Tech, POLYTECH, and DDOE Certifications—Digital Publishing and Design Technologies

<i>Certification</i>	<i>Sussex Tech</i>	<i>POLYTECH</i>	<i>DDOE</i>
SkillsED Graphic Deign	✓	?*	no
Website Portfolio	✓	No	✓
Adobe Certified Associate - Adobe Illustrator CC 2015	No	✓	✓
Adobe Certified Associate - Adobe Premiere Pro CC 2015	No	✓	✓
Adobe Certified Associate - Adobe Photoshop	No	✓	✓
Adobe Certified Associate - Premiere Pro	No	✓	✓
Adobe Certified Associate - Premier	No	✓	✓
Adobe Dreamweaver	No	No	✓
Adobe Illustrator	No	?	✓
Adobe Photoshop	No	?	✓
Adobe XD	No	No	✓
GAERF PrintEd Advertising Design	✓	No	✓
GAERF PrintEd Graphic Communications	✓	No	✓
Certified Photoshop Exam	No	No	✓
Google AdWords	No	No	✓

Source: Sussex County Vocational Technical School District; Delaware Department of Education, 2021

\*The question mark (?) indicates it is unclear if this certification is offered.

## Labor Market Analysis

To analyze the labor market for occupations related to digital publishing and design, this report provides information on a national “core occupation” that closely aligns with a Sussex Tech CTE Area. For this section, the national **core occupation is Graphic Designers**, which closely aligns with the **Sussex Tech CTE Area: Digital Publishing and Design Technologies**. To provide more in-depth information, Table 25 below also has data on 10 occupations closely related to Graphic Designers.

## Key Takeaways: Digital Publishing and Design Technologies

**The outlook for the Digital Publishing and Design Technologies field is mostly positive.** There are several positive indicators in this field and no indicators to suggest slowing growth or decline.

Of the 11 occupations examined:








- Three occupations are projected to be fast growing occupations in Delaware from 2020 to 2030:
  - Software Developers (21%)
  - Web and Digital Interface Designers (13%)
  - Web Developers (13%)
- Five occupations have a large number of projected annual openings in Delaware. The top three are:
  - Software Developers (601)
  - Art Directors (60)
  - Graphic Designers (40)
- Six occupations are considered by ONET to be “Bright Outlook” occupations based on national trends (indicated by the sun symbol in Table 25).
- One occupation is projected to decline nationally or in Delaware through 2030 (indicated in red in Table 25).

Certifications:

- For Digital Publishing and Design Technologies, Sussex Tech offers four of the 14 certifications recognized by DDOE and none of the same certifications as POLYTECH.



Table 25. Digital Publishing and Design Technologies Occupational Analysis

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
 Software Developers	21%	601	\$108,440 annual \$52.14 hourly	\$96,220 annual \$46.26 hourly	\$101,580 annual \$48.84 hourly	22% - Faster than average
 Fine Artists, Including Painters, Sculptors, and Illustrators	-	-	-	-	-	17% - Faster than average
 Special Effects Artists and Animators	-	-	-	-	-	16% - Faster than average
 Video Game Designers	-	-	\$54,910 annual \$26.40 hourly	-	\$49,350 annual \$23.73 hourly	13% - Faster than average
 Web and Digital Interface Designers	13%	35	\$54,910 annual \$26.40 hourly	-	\$49,350 annual \$23.73 hourly	13% - Faster than average
 Web Developers	13%	35	\$82,880 annual \$39.85 hourly	-	-	13% - Faster than average
Set and Exhibit Designers	-	-	-	-	-	9% - Average
Interior Designers	10%	17	\$48,500 annual \$23.32 hourly	-	\$48,760 annual \$23.44 hourly	0% - Little or no change
<b>Core Occupation: Graphic Designers</b>	5%	40	\$54,650 annual \$26.27 hourly	-	\$47,140 annual \$22.66 hourly	3% - Slower than average
Art Directors	2%	60	\$54,650 annual \$26.27 hourly	-	-	3% - Slower than average
 Desktop Publishers	-	-	-	-	-	-12% Decline

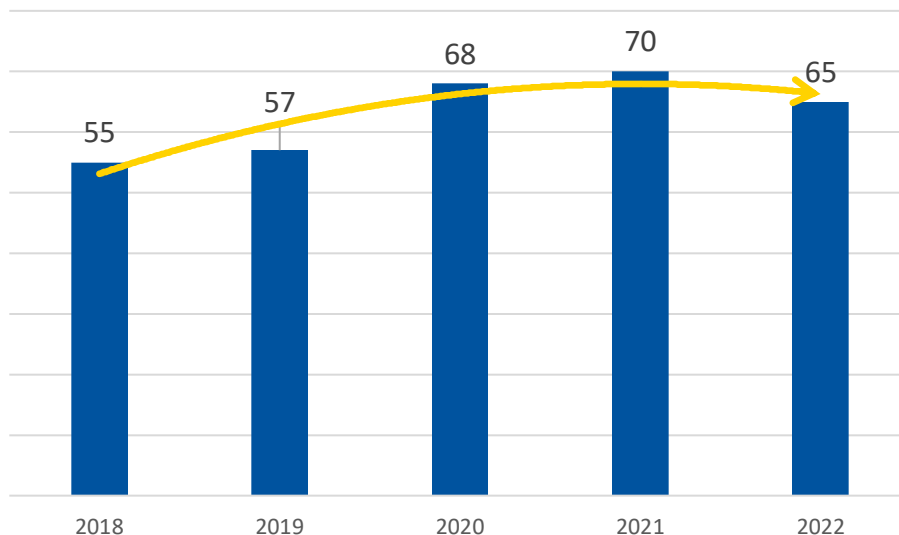
Source: Occupational Information Network, 2021; (-) = no data available

## Early Care and Education

Early childhood education refers to teaching children from birth to age eight. Early care and education programs typically focus on both academic and social instruction that prepare students to start Kindergarten. Students in the Early Care and Education program study child development, managing classrooms, regulations of childcare facilities, and more. The students can participate in hands on learning experiences at Parents and Children Together at Tech, a state-licensed day care center on the Sussex Tech Campus. This program prepares students for careers in childcare centers, early childhood education, elementary education, social work, or child psychology. Potential careers include childcare teacher, Kindergarten teacher, and special education teacher.

All three Delaware vo-tech districts have an Early Care and Education program. Figure 19 below highlights the 2018–2022 enrollment in Early Care and Education. Enrollment for each year captures students in Grades 10, 11, and 12. **Between 2018 and 2022, enrollment increased steadily until 2021 and decline slightly in 2022.**

Figure 19. Sussex Tech Early Care and Education Enrollment, 2018–2022



Source: Sussex County Vocational Technical School District, 2022

## Industry Standards and Credentials

At the national level, there are two recognized certifications: the Certified Childcare Professional and the Child Development Associate. Access the website with this certification information in Appendix A.

Table 26 listed below summarizes the certifications offered at Sussex Tech and POLYTECH and the certifications recognized by the DDOE. **For Early Care and Education, Sussex Tech prepares students for one of the five certifications that DDOE recognizes and one certification that aligns with POLYTECH.**

Table 26. Sussex Tech, POLYTECH, and DDOE Certifications—Early Care and Education

<i>Certification</i>	<i>Sussex Tech</i>	<i>POLYTECH</i>	<i>DDOE</i>
Early Care & Education/School Age Interim	✓	No	No
Infant/Child First Aid	✓	✓	No
Heart Saver CPR	✓	✓	✓
Training for Early Care in Education I	No	✓	✓
Training for Early Care in Education I & II	No	✓	✓
Delaware Stars Training	No	✓	No
Delaware First Preschool Teacher/Assistant	No	✓	No
Creative Mentoring Certification	No	✓	No
Teaching Strategies Gold (University of Delaware)	No	✓	No
Administer Medication Training	No	✓	No
Para Pro	No	✓	✓
Praxis Early Childhood Education	No	Optional	✓

Source: Sussex County Vocational Technical School District; Delaware Department of Education, 2021

## Labor Market Analysis

To analyze the labor market for occupations related to Early Care and Education, this report provides information on a national “core occupation” that closely aligns with a Sussex Tech CTE Area. For this section, the national **core occupation is Childcare Workers**, which closely aligns with the **Sussex Tech CTE Area: Early Care and Education**. To provide more in-depth information, Table 27 below also has data on 9 occupations closely related to Childcare Workers.

## Key Takeaways: Early Care and Education

**The outlook for the Early Care and Education field is very positive.** In addition to strong projected growth in several occupations, more than half of the occupations are projected to have a large number of annual openings. Additionally, the core occupation is a “Bright Outlook” occupation.

Of the 10 occupations examined:






- Five occupations are projected to be fast growing occupations in Delaware from 2020 to 2030. The top three are:
  - Home Health & Personal Care Ides (40%)


- Preschool Teachers, except Special Education (29%)
  - Childcare Workers (20%)
- Six occupations have a large number of projected annual openings in Delaware. The top three are:
  - Home Health and Personal Care Aides (1,554)
  - Teaching Assistants, except Special Education (553)
  - Preschool Teachers, except Special Education (290)
- Six occupations are considered by ONET to be “Bright Outlook” occupations based on national trends (indicated by the sun symbol in Table 27).
- No occupations are projected to decline nationally or in Delaware through 2030.

Certification:

- For Early Care and Education, Sussex Tech prepares students for one of the five certifications that DDOE recognizes and one certification that aligns with POLYTECH.

Table 27. Early Care and Education Occupational Analysis

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
 Home Health & Personal Care Aides	40%	1554	\$24,420 annual \$11.74 hourly	\$23,150 annual \$11.13 hourly	\$26,650 annual \$12.81 hourly	33% - Faster than average
 Preschool Teachers, Except Special Education	29%	290	\$28,560 annual \$13.73 hourly	\$27,110 annual \$13.03 hourly	\$28,270 annual \$13.59 hourly	18% - Faster than average
 Health Education Specialists	13%	27	\$60,910 annual \$29.28 hourly	\$49,520 annual \$23.81 hourly	\$62,670 annual \$30.13 hourly	12% - Faster than average
 Special Education Teachers, Preschool	-	-	-	-	-	12% - Faster than average
 <b>Core Occupation: Childcare Workers</b>	20%	158	\$22,850 annual \$10.99 hourly	\$22,290 annual \$10.72 hourly	\$24,760 annual \$11.90 hourly	9% - Average
Nannies	-	-	\$22,850 annual \$10.99 hourly	\$22,290 annual \$10.72 hourly	\$24,760 annual \$11.90 hourly	9% - Average
Teaching Assistants, Preschool, Elementary, Middle, and Secondary School, Except Special Education	7%	553	\$35,330 annual N/A hourly	\$34,920 annual N/A hourly	\$32,790 annual N/A hourly	9% - Average
Kindergarten Teachers, Except Special Education	3%	28	\$59,370 annual N/A hourly	\$60,270 annual N/A hourly	\$76,010 annual N/A hourly	8% - Average

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
 Nursing Assistants	14%	698	\$34,970 annual \$16.81 hourly	\$30,230 annual \$14.53 hourly	\$29,590 annual \$14.23 hourly	8% - Average
Special Education Teachers, Secondary School	2%	55	\$74,640 annual N/A hourly	\$62,420 annual N/A hourly	\$74,340 annual N/A hourly	8% - Average

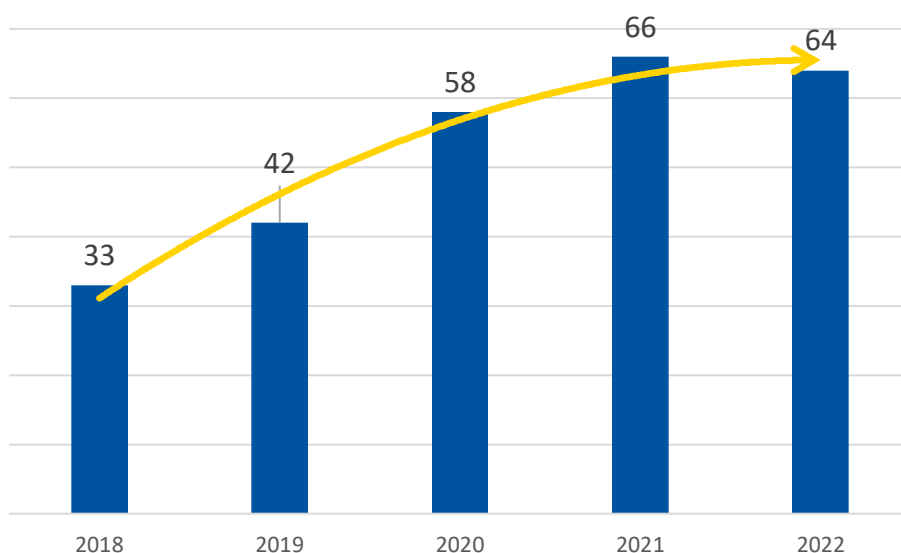
Source: Occupational Information Network, 2021; (-) = no data available

## Electrical and Green Energy Technologies

The electrical industry refers to jobs relating to installing, generating, distributing, or maintaining electrical power. Green energy is a subset of electrical energy that relates to generating power from renewable resources such as wind. Students in the Electrical and Green Energy Technologies program study the principles of electricity and the procedures and techniques for wiring various commercial and residential properties. This program prepares students for careers in the installation of maintenance of electrical systems in electronics and within buildings. All students receive instruction on the National Electric Code and are introduced to renewable energy sources and their related machines. Potential careers include electrical engineer, electrical lineman, and master electrician.

All three Delaware vo-tech districts have an Electrical and Green Energy program. Figure 20 below highlights the 2018–2022 enrollment in Electrical and Green Energy. Enrollment for each year captures students in Grades 10, 11, and 12. **Between 2018 and 2022, enrollment increased steadily until 2021 and declined slightly in 2022.**

Figure 20. Sussex Tech Electrical and Green Energy Technologies Enrollment, 2018–2022



Source: Sussex County Vocational Technical School District, 2022

## Industry Standards and Credentials

Popular certifying organizations include the International Association of Electrical Inspectors, International Association of Lighting Management Companies, and the International Electrical Testing Association (ONET, Electricians, 2021). For a full list of national certifications related to electrical and green energy see Appendix A.

Table 28 listed below summarizes the certifications offered at Sussex and POLYTECH, and the certifications recognized by DDOE. **For Electrical and Green Energy, Sussex Tech prepares students for all five of the certifications that DDOE recognizes and all the same certifications as POLYTECH.**

Table 28. Sussex Tech, POLYTECH, and DDOE Certifications—Electrical and Green Energy Technologies

<i>Certification</i>	<i>Sussex Tech</i>	<i>POLYTECH</i>	<i>DDOE</i>
OSHA 10	✓	✓	No
NCCER Core Curriculum	✓	✓	✓
NCCER Electrical Year 1	✓	✓	✓
DE State Apprenticeship Advanced Placement	✓	✓	✓
DE State Electrical Apprenticeship License	✓	✓	✓
Registered DE Electrical Apprentice - DE Board of Electrical Examiners	✓	✓	✓

Source: Sussex County Vocational Technical School District; Delaware Department of Education, 2021

## Labor Market Analysis

To analyze the labor market for occupations related to electrical and green energy, this report provides information on a national “core occupation” that closely aligns with a Sussex Tech CTE Area. For this section, the national **core occupation is Electricians**, which closely aligns with the **Sussex Tech CTE Area: Electrical and Green Energy Technologies**. To provide more in-depth information, Table 29 below also has data on 10 occupations closely related to Electricians.

## Key Takeaways: Electrical and Green Energy Technologies

**The outlook for the Electrical and Green Energy Technologies field is mostly positive.** There are several positive indicators in this field and few indicators to suggest slowing growth or decline.




Of the 11 occupations examined:

- Two occupations are projected to be fast growing occupations in Delaware from 2020 to 2030:
  - Plumbers, Pipefitters, and Steamfitters (15%)
  - Electricians (10%)
- Four occupations have a large number of projected annual openings in Delaware. The top three are:
  - General Maintenance and Repair Workers (328)
  - Electricians (300)
  - Plumbers, Pipefitters and Steamfitters (145)



- Two occupations are considered by ONET to be “Bright Outlook” occupations based on national trends (indicated by the sun symbol in Table 29).
- Two occupations are projected to decline nationally or in Delaware through 2030 (indicated by the red arrow in Table 29).

Table 29. Electrical and Green Energy Technologies Occupational Analysis

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
 Lighting Technicians	-	-	\$51,470 annual \$24.75 hourly	-	-	16% - Faster than average
<b>Core Occupation: Electricians</b>	10%	300	\$47,990 annual \$23.07 hourly	\$46,450 annual \$22.33 hourly	\$45,760 annual \$22.00 hourly	9% - Average
 Maintenance and Repair Workers, General	5%	328	\$43,920 annual \$21.12 hourly	\$37,820 annual \$18.18 hourly	\$37,510 annual \$18.03 hourly	8% - Average
Electric Motor, Power Tool, and Related Repairers	-	-	\$37,500 annual \$18.03 hourly	-	-	7% - Average
Electrical and Electronic Equipment Assemblers	-	-	\$37,460 annual \$18.01 hourly	-	\$29,630 annual \$14.25 hourly	7% - Average
Electrical and Electronics Installers and Repairers, Transportation Equipment	-	-	-	-	-	7% - Average
Plumbers, Pipefitters, and Steamfitters	15%	145	\$62,640 annual \$30.11 hourly	\$60,200 annual \$28.94 hourly	\$48,280 annual \$23.21 hourly	5% - Average
 Electrical and Electronics Repairers, Commercial and Industrial Equipment	-4%	14	\$67,140 annual \$32.28 hourly	-	\$61,670 annual \$29.65 hourly	5% - Average

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
Helpers—Electricians	9%	29	\$34,170 annual \$16.43 hourly	-	\$29,460 annual \$14.16 hourly	1% - Little or no change
Electrical Power-Line Installers and Repairers	8%	36	\$95,370 annual \$45.85 hourly	\$95,370 annual \$45.85 hourly	\$80,760 annual \$38.83 hourly	1% - Slower than average
↓ Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	-2%	3	\$100,030 annual \$48.09 hourly	-	\$99,980 annual \$48.07 hourly	-2% - Decline

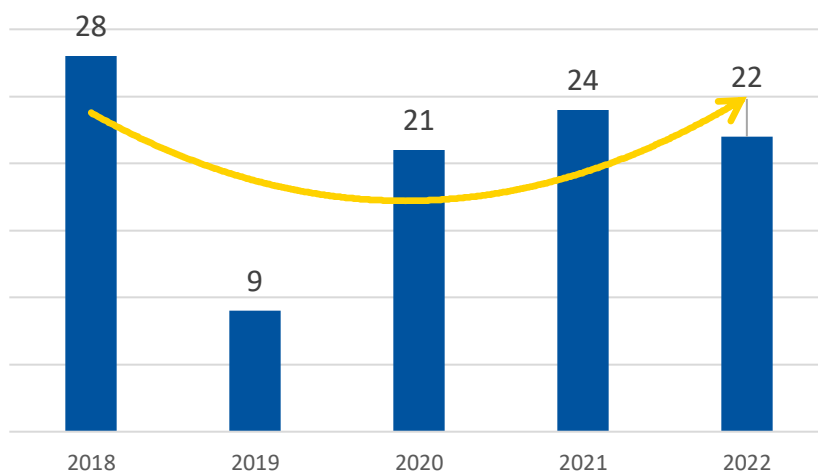
Source: Occupational Information Network, 2021; (-) = no data available

## Electronics

The industrial electronics industry involves working with electronic circuits within machines and devices and connecting devices through wireless communications or fiberoptics (Career College, 2022). The information technology (IT) industry provides services for software and hardware particularly focused on communication and connection to the internet (New Castle County, Business). Students in the electronics program at Sussex Tech study the technical aspects of electronics and prepare for postsecondary education for either electronics or IT. All students receive hands on instruction with basic electronics, DC circuits, AC circuits, semiconductors, digital (systems, logic, and applications), micro-processors, computer repair, networking, electronic measurement, audio systems repair, and process control. Students also learn amateur radio operations and can earn a Federal Communications Commission (FCC) license. Potential careers include electronic engineering, computer repair, and computer engineering.

Sussex Tech and POLYTECH have an Electronics program, NCCVT does not. Figure 21 below highlights the 2018–2022 enrollment Electronics. Enrollment for each year captures students in Grades 10, 11, and 12. Over the past five years, enrollment in Electronics has varied. There were only 9 students in the 10th grade that enrolled in the program in 2019, which explains the large enrollment decline in Figure 21. **Between 2018 and 2022, enrollment has varied. There was an enrollment decline in 2019, an increase between 2020 and 2021, and a slight decline in 2022. Between 2018 and 2022, Electronics had the lowest total enrollment of all programs with 104 students.**

Figure 21. Sussex Tech Electronics Enrollment, 2018–2022



Source: Sussex County Vocational Technical School District, 2022

## Industry Standards and Credentials

A popular certifying organization related to electronics is the National Association of Radio and Telecommunications Engineers, Inc. (ONET, Electronics, 2021). For a full list of national certifications related to Electronics occupations see Appendix A.

Table 30 listed below summarizes the certifications offered at Sussex Tech and POLYTECH and the certifications recognized by DDOE. **For Electronics, Sussex Tech prepares students for three of the six certifications that DDOE recognizes and one certification that aligns with POLYTECH.**

Table 30. Sussex Tech, POLYTECH, and DDOE Certifications—Electronics

<i>Certification</i>	<i>Sussex Tech</i>	<i>POLYTECH</i>	<i>DDOE</i>
FCC Amateur Radio	✓	No	No
ETAi SET Student Electronic Technician	✓	✓	✓
TestOut PC Pro	✓	No	✓
ETAi CETa	✓	No	✓
ETAi CSS	No	No	✓
MECP Certification	No	✓	✓
ISCET Certification	No	No	✓
Basic Installer	No	✓	No

Source: Sussex County Vocational Technical School District; Delaware Department of Education, 2021

## Labor Market Analysis

To analyze the labor market for occupations related to Electronics, this report provides information on a national “core occupation” that closely aligns with a Sussex Tech CTE Area. For this section, the national **core occupation is Electronics Engineers (Except Computer)**, which closely aligns with the **Sussex Tech CTE Area: Electronics**. To provide more in-depth information, Table 31 below also has data on 10 occupations closely related to Electronics Engineers (Except Computer).

## Key Takeaways: Electronics

**The outlook for the Electronics field is mixed.** Delaware-specific data for the related occupations were limited and inconclusive. Though there are some positive indicators such as a strong number of job openings in three occupations, no occupations were considered to be “fast growing” in Delaware.


Of the 11 occupations examined:

- No occupations are projected to be fast growing occupations in Delaware from 2020 to 2030. Nationally, Industrial Engineering is projected to be grow faster than the national average.
- Three occupations have a large number of projected annual openings in Delaware:
  - Industrial Engineers (43)
  - Mechanical Engineers (35)
  - Electrical Engineers (32)
- One occupation is considered by ONET to be a “Bright Outlook” occupation (indicated by the sun symbol in Table 31).
- No occupations are projected to decline nationally or in Delaware through 2030.

Enrollment:

- Between 2018 and 2022, Electronics had the lowest total enrollment of all programs with 104 students.

Table 31. Electronics Occupational Analysis

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
 Industrial Engineers	7%	43	\$99,340 annual \$47.76 hourly	\$79,380 annual \$38.16 hourly	\$80,340 annual \$38.63 hourly	14% - Faster than average
Electrical Engineers	4%	32	\$101,070 annual \$48.59 hourly	\$87,770 annual \$42.2 hourly	\$81,110 annual \$39.00 hourly	7% - Average
Mechanical Engineers	2%	35	\$100,900 annual \$48.51 hourly	-	\$96,910 annual \$46.59 hourly	7% - Average
<b>Core Occupation: Electronics Engineers</b>	-	-	\$112,500 annual \$54.09 hourly	-	-	6% - Average
Radio Frequency Identification Device Specialists	-	-	\$112,500 annual \$54.09 hourly	-	-	6% - Average
Mechatronics Engineers	-	-	\$127,110 annual \$61.11 hourly	-	\$89,130 annual \$42.85 hourly	3% - Slower than average
Microsystems Engineers	-	-	\$127,110 annual \$61.11 hourly	-	\$89,130 annual \$42.85 hourly	3% - Slower than average
Photonics Engineers	-	-	\$127,110 annual \$61.11 hourly	-	\$89,130 annual \$42.85 hourly	3% - Slower than average
Robotics Engineers	-	-	\$127,110 annual \$61.11 hourly	-	\$89,130 annual \$42.85 hourly	3% - Slower than average

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
Computer Hardware Engineers	-	-	-	-	-	2% - Slower than average
Electrical and Electronic Engineering Technologists and Technicians	-	-	\$74,300 annual \$35.72 hourly	-	\$81,550 annual \$39.21 hourly	2% - Slower than average

Source: Occupational Information Network, 2021; (-) = no data available

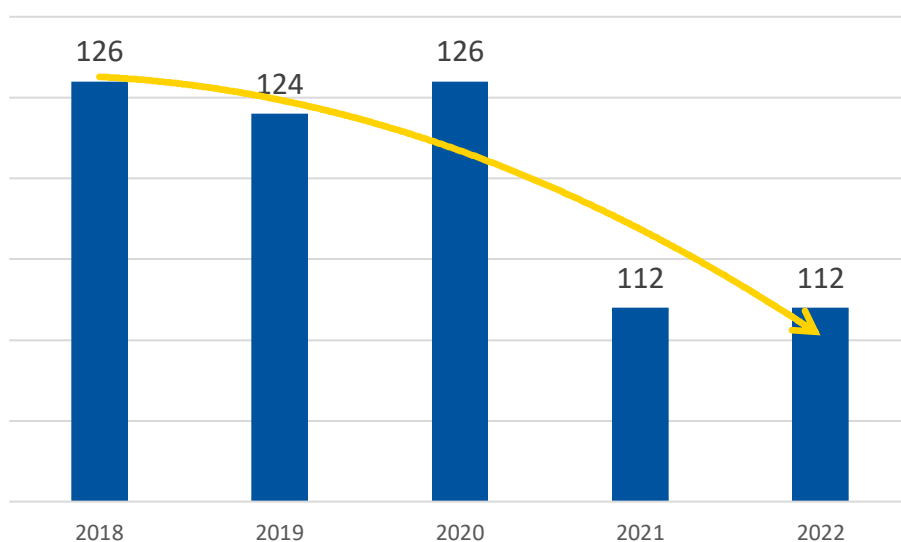


## Health Professions

The healthcare industry is made up of businesses and people who provide medical services, equipment, pharmaceuticals, insurance, or other support to provide healthcare. Students in the Health Professions program at Sussex Tech study biology and chemistry, anatomy/physiology, Spanish, and higher-level math. This program prepares students directly for careers in healthcare and for post-secondary education. All students receive instruction in clinical, lab, and classroom settings to earn their Certified Nursing Assistant (CNA) certification. Students are also certified in CPR/AED, First Aid and Bloodborne Pathogens. Potential careers include registered nurse, home health aide, and physician assistant.

Sussex Tech and NCCVT have a Health Professions/Nursing program, while POLYTECH does not. Figure 22 below highlights the 2018–2022 enrollment in Health Professions. Enrollment for each year captures students in Grades 10, 11, and 12. **Between 2018 and 2022 enrollment has varied. Enrollment was consistent from 2018 to 2020, declined in 2021, and remained the same in 2022. Between 2018 and 2022, the Health Professions program had the highest total enrollment of all programs with 600 students.**

Figure 22. Sussex Tech Health Professions Enrollment 2018–2022



Source: Sussex County Vocational Technical School District, 2022

## Industry Standards and Credentials

There are 20 national certifications related to health professions, specifically nursing assistants. Examples of certifications include basic life support and bloodborne pathogens offered by the

American Red Cross (ONET, Nursing, 2021). For a full list of certifications related to health professions see Appendix A.

Table 32 listed below summarizes the certifications offered at Sussex Tech and POLYTECH and the certifications recognized by DDOE. For Health Professions, there are three certifications that Sussex Tech and POLYTECH prepare students for that are recognized by DDOE.

Table 32. Sussex Tech, POLYTECH, and DDOE Certifications—Health Professions

<i>Certification</i>	<i>Sussex Tech</i>	<i>POLYTECH</i>	<i>DDOE</i>
DE State Certified Nursing Assistant	✓	✓	✓
Prometric DE Nurse Aide Exam	✓	✓	✓
First Aid	✓	✓	No
Blood Borne Pathogens	✓	?*	No
HIPPA	✓	?	No
American Heart Assoc (AHA) Basic Life Support CPR/AED	✓	✓	No
Heart Saver CPR	✓	✓	✓
National Health Career Association (NHA) Cert. Phlebotomy Tech (CPT)	No	No	✓
NCHSE National Health Science Assessment	No	No	✓

\*The question mark (?) indicates it is unclear if this certification is offered.

Source: Sussex County Vocational Technical School District; Delaware Department of Education, 2021

## Labor Market Analysis

To analyze the labor market for occupations related to health professions, this report provides information on a national “core occupation” that closely aligns with a Sussex Tech CTE Area. For this section, the national **core occupation is Nursing Assistants**, which closely aligns with the **Sussex Tech CTE Area: Health Professions**. To provide more in-depth information, Table 33 below also has data on 10 occupations closely related to Nursing Assistants.

## Key Takeaways: Health Professions

**The outlook for the Health Professions field is very positive.** Almost all the occupations are projected to be fast growing, have a large number of annual openings, or both.

Of the 11 occupations examined:







- Ten occupations are projected to be fast growing occupations in Delaware from 2020 to 2030. The top three are:
  - Home Health Aides (36%)
  - Physical Therapist Aides (28%)
  - Medical Assistants (24%)

- Eight occupations have a large number of projected annual openings in Delaware. The top three are:
  - Acute Care Nurses/Registered Nurses (818)
  - Nursing Assistants (818)
  - Medical Assistants (424)
- Six occupations are considered by ONET to be “Bright Outlook” occupations based on national trends (indicated by the sun symbol in Table 33).
- No occupations are projected to decline nationally or in Delaware through 2030.

### Enrollment

Between 2018 and 2022, the Health Professions program had the highest total enrollment of all programs with 600 students.

Table 33. Health Professions Occupational Analysis

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
 Home Health Aides	36%	280	\$24,420 annual \$11.74 hourly	\$23,150 annual \$11.13 hourly	\$26,650 annual \$12.81 hourly	33% - Faster than average
 Physical Therapist Aides	28%	26	\$29,520 annual \$14.19 hourly	-	\$28,350 annual \$13.63 hourly	25% - Faster than average
 Medical Assistants	24%	424	\$36,470 annual \$17.54 hourly	\$30,000 annual \$14.42 hourly	\$34,090 annual \$16.39 hourly	18% - Faster than average
 Emergency Medical Technicians	18%	87	\$36,810 annual \$17.70 hourly	\$33,750 annual \$16.23 hourly	\$34,310 annual \$16.50 hourly	11% - Faster than average
 Paramedics	18%	87	\$59,280 annual \$28.50 hourly	-	\$46,950 annual \$22.57 hourly	11% - Faster than average
 Surgical Assistants	18%	14	-	-	-	11% - Faster than average
Acute Care Nurses	15%	818	\$75,380 annual \$36.24 hourly	\$74,910 annual \$36.01 hourly	\$74,760 annual \$35.94 hourly	9% - Average
Licensed Practical and Licensed Vocational Nurses	16%	220	\$55,290 annual \$26.58 hourly	\$48,070 annual \$23.11 hourly	\$47,860 annual \$23.01 hourly	9% - Average
Registered Nurses	15%	818	\$75,380 annual \$36.24 hourly	\$74,910 annual \$36.01 hourly	\$74,760 annual \$35.94 hourly	9% - Average

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
<b>Core Occupation: Nursing Assistants</b>	14%	698	\$34,970 annual \$16.81 hourly	\$30,230 annual \$14.53 hourly	\$29,590 annual \$14.23 hourly	8% - Average
Psychiatric Aides	-	-	\$32,880 annual \$15.81 hourly	-	-	7% - Average

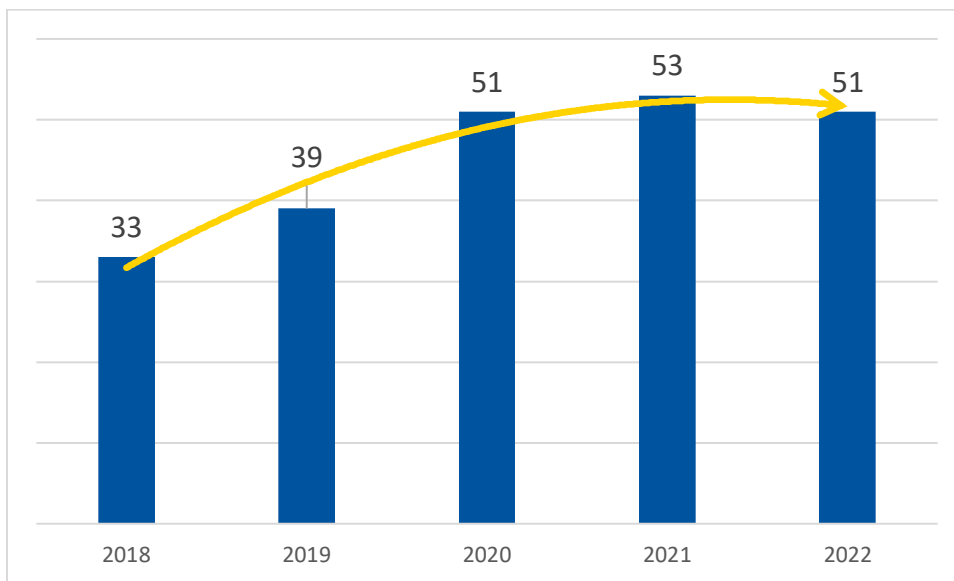
Source: Occupational Information Network, 2021; (-) = no data available

## HVAC-R Engineering

HVAC-R refers to heating, ventilation, air conditioning, and refrigeration. This industry refers to the different systems that circulate air in and out of spaces, both commercial and residential. Students in the HVAC-R Engineering program at Sussex Tech study heating, ventilation, air conditioning, and refrigeration. This program prepares students for careers in installation, repair, and troubleshooting of the aforementioned systems and their related electronic components. All students receive instruction on sizing, installation, soldering, and wiring of copper plastic and metal piping as well as how to read and draft blueprints. Potential careers include entry level helper, service technician, and facilities maintenance personnel.

Sussex Tech and NCCVT have an HVAC program and POLYTECH does not. Figure 23 below highlights the 2018–2022 enrollment in the HVAC-R Engineering program. Enrollment for each year captures students in Grades 10, 11, and 12. **Between 2018–2022, enrollment increased steadily until 2021 and declined slightly in 2022.**

Figure 23. Sussex Tech HVAC-R Engineering Enrollment, 2018–2022



Source: Sussex County Vocational Technical School District, 2021

### Industry Standards and Credentials

In the HVAC-R industry, there are 129 certifications that individuals can acquire, and a popular certifying organization is the ESCO Group (ONET, Heating, 2021). For a full list of national certifications see Appendix A.

Table 34 listed below summarizes the certifications offered at Sussex Tech and certifications recognized by DDOE. **For HVAC-R Engineering, Sussex Tech prepares students for six of the eight certifications that DDOE recognizes.**

Table 34. Sussex Tech and DDOE Certifications—HVAC-R Engineering

<i>Certification</i>	<i>Sussex Tech</i>	<i>DDOE</i>
NCCER Level 1 Final Exam	✓	✓
NCCER Core Curriculum	✓	✓
NCCER HVAC-R Module	✓	✓
EPA 608 Type I	✓	✓
EPA 608 Type II	✓	✓
EPA 608 Type III	✓	No
DE State Apprenticeship Advanced Placement	✓	✓
U.S. EPA Approved Refrigerant Type I Cert.	No	✓
U.S. EPA Approved Refrigerant Type II Cert.	No	✓

Source: Sussex County Vocational Technical School District; Delaware Department of Education, 2021

## Labor Market Analysis

To analyze the labor market for occupations related to HVAC-R engineering, this report provides information on a national “core occupation” that closely aligns with a Sussex Tech CTE Area. For this section, the national **core occupation is Heating, Air Conditioning, and Refrigeration Mechanics and Installers**, which closely aligns with the **Sussex Tech CTE Area: HVAC-R Engineering**. To provide more in-depth information, Table 35 below also has data on 10 occupations closely related to Heating, Air Conditioning, and Refrigeration Mechanics and Installers.

## Key Takeaways: HVAC-R Engineering

**The outlook for the HVAC-R Engineering field is mostly positive.** There are several positive indicators in this field and few indicators to suggest slowing growth or decline.

Of the 11 occupations examined:

- Five occupations are projected to be fast growing occupations in Delaware from 2020 to 2030. The top three are:
  - Industrial Machinery Mechanics (17%)
  - Plumbers, Pipefitters, and Steamfitters/Solar Thermal Installers (15%)
  - Control and Valve Installers and Repairers, Except Mechanical Door (12%\*)
- Five occupations have a large number of projected annual openings in Delaware. The top three are:
  - General Maintenance and Repair Workers (328)

- Heating, Air Conditioning, and Refrigeration Mechanics and Installers (177)
  - Plumbers, Pipefitters, and Steamfitters (145)
- One occupation is considered by ONET to be a “Bright Outlook” occupation (indicated by the sun symbol in Table 35)
- One occupation is projected to decline nationally or in Delaware through 2030 (indicated by the red arrow in Table 35).

\*The projected growth is 12 percent, but there are only 3 annual openings between 2020 and 2030. The field may be growing, but job openings for Sussex Tech graduates are not guaranteed.



Table 35. HVAC-R Engineering Occupational Analysis

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
 Industrial Machinery Mechanics	17%	101	\$61,670 annual \$29.65 hourly	\$60,470 annual \$29.07 hourly	\$48,040 annual \$23.1 hourly	21% - Faster than average
Maintenance and Repair Workers, General	5%	328	\$43,920 annual \$21.12 hourly	\$37,820 annual \$18.18 hourly	\$37,510 annual \$18.03 hourly	8% - Average
Electric Motor, Power Tool, and Related Repairers	-	-	\$37,500 annual \$18.03 hourly	-	-	7% - Average
Geothermal Technicians	-	-	\$36,980 annual \$17.78 hourly	\$36,970 annual \$17.77 hourly	\$36,870 annual \$17.73 hourly	6% - Average
Stationary Engineers and Boiler Operators	6%	6	\$71,440 annual \$34.35 hourly	-	\$60,970 annual \$29.31 hourly	6% - Average
<b>Core Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers</b>	10%	177	\$54,010 annual \$25.96 hourly	\$48,390 annual \$23.26 hourly	\$47,520 annual \$22.85 hourly	5% - Average
Plumbers, Pipefitters, and Steamfitters	15%	145	\$62,640 annual \$30.11 hourly	\$60,200 annual \$28.94 hourly	\$48,280 annual \$23.21 hourly	5% - Average
Solar Thermal Installers and Technicians	15%	145	\$62,640 annual \$30.11 hourly	\$60,200 annual \$28.94 hourly	\$48,280 annual \$23.21 hourly	5% - Average

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
Boilermakers	-	-	-	-	-	-1% - Little or no change
Control and Valve Installers and Repairers, Except Mechanical Door	12%	3	\$61,800 annual \$29.71 hourly	\$60,890 annual \$29.27 hourly	\$61,190 annual \$29.42 hourly	2% - Slower than average
↓ Home Appliance Repairers	8%	9	\$57,180 annual \$27.49 hourly	-	\$35,860 annual \$17.24 hourly	-4% - Decline

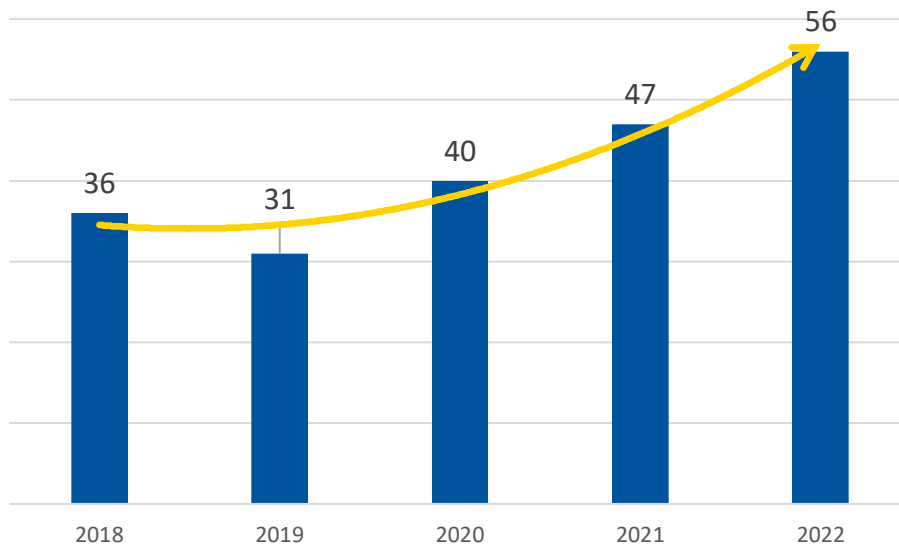
Source: Occupational Information Network, 2021; (-) = no data available

## Landscape Management and Environmental Technologies

Landscape architecture is the design of spaces that considers the interactions of humans with their built environment. Landscape architects use elements of art, environmental sustainability, architecture, engineering, and sociology to build both functional and aesthetically pleasing environments (Holmes, 2022). Students in the Landscape Management and Environmental Technologies program at Sussex Tech learn problem-solving skills in relation to many environmental subjects such as natural resources, ecology, aquatics, wildlife, wetlands, waste management, and more. This program prepares students for postsecondary study in landscape and environmental fields. All students receive instruction on environmental testing, monitoring technology, and a state-of-the-art greenhouse. Potential careers include environmental technician/engineer, environmental consultant/planner, and landscaper.

Sussex Tech and POLYTECH have a Landscape Management and Environmental Technologies program. Figure 24 below highlights the 2018–2022 enrollment in Landscape Management and Environmental Technologies. Enrollment for each year captures students in Grades 10, 11, and 12. **Between 2018 and 2022, enrollment has mostly increased, with a slight decline in 2019.**

Figure 24. Sussex Tech Landscape Management and Environmental Technologies Enrollment, 2018–2022



Source: Sussex County Vocational Technical School District, 2022

## Industry Standards and Credentials

There are 17 national certifications related to landscape management and environmental technologies, and a popular certifying organization is the National Registry of Environmental Professionals (ONET, Environmental, 2021). For a full list of national certifications related to landscape management and technologies see Appendix A.

Table 36 listed below summarizes the certifications offered at Sussex Tech and POLYTECH and the certifications recognized by DDOE. **For Landscape Management and Environmental Technologies, Sussex Tech prepares students for one of the two certifications that DDOE recognizes and none of the same certifications as POLYTECH.**

Table 36. Sussex Tech, POLYTECH, and DDOE Certifications— Landscape Management and Environmental Technologies

<i>Certification</i>	<i>Sussex Tech</i>	<i>POLYTECH</i>	<i>DDOE</i>
National Pesticide Applicators Certification	✓	?*	✓
iCEV Ducks Unlimited Ecology Conservation and Management Cert.	No	No	✓
Integrated Pest Management	No	✓	No

Source: Sussex County Vocational Technical School District; Delaware Department of Education, 2021

\*The question mark (?) indicates it is unclear if this certification is offered.

## Labor Market Analysis

To analyze the labor market for occupations related to Landscape Management and Environmental Technologies, this report provides information on a national “core occupation” that closely aligns with a Sussex Tech CTE Area. For this section, the national **core occupation is Environmental Engineering Technologists and Technicians**, which closely aligns with the **Sussex Tech CTE Area: Landscape Management and Environmental Technologies**. To provide more in-depth information, Table 37 below also has data on 10 occupations closely related to Environmental Engineering Technologists and Technicians.

## Key Takeaways: Landscape Management and Environmental Technologies

**The outlook for the Landscape Management and Environmental Technologies field is mixed.**

Though the high number of job openings in four of the careers is a positive indicator, no occupations are projected to be fast growing occupations.

Of the 11 occupations examined:


- No occupations are projected to be fast growing occupations in Delaware from 2020 to 2030.

- Four occupations have a large number of projected annual openings in Delaware. The top three are:
  - Environmental Compliance Inspectors (118)
  - Industrial Engineers (43)
  - Civil Engineering Technologists and Technicians (31)
- Two occupations are considered by ONET to be “Bright Outlook” occupations based on national trends (indicated by the sun symbol in Table 37).
- Two occupations are projected to decline nationally or in Delaware through 2030 (indicated by the red arrow in Table 37).

Credentials:

- For Landscape Management and Environmental Technologies, Sussex Tech prepares students for one of the two certifications that DDOE recognizes and none of the same certifications as POLYTECH.

Table 37. Landscape Management and Environmental Technologies Occupational Analysis

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
 Industrial Engineers	7%	43	\$99,340 annual \$47.76 hourly	\$79,380 annual \$38.16 hourly	\$80,340 annual \$38.63 hourly	14% - Faster than average
 Environmental Science and Protection Technicians, Including Health	8%	22	\$45,040 annual \$21.65 hourly	-	\$39,240 annual \$18.87 hourly	11% - Faster than average
<b>Core Occupation: Environmental Engineering Technologists and Technicians</b>	1%	12	-	-	-	8% - Average
Environmental Scientists and Specialists, Including Health	5%	31	\$53,990 annual \$25.96 hourly	\$53,990 annual \$25.96 hourly	\$49,240 annual \$23.67 hourly	8% - Average
Water/Wastewater Engineers	1%	12	\$99,630 annual \$47.90 hourly	\$86,860 annual \$41.76 hourly	\$79,120 annual \$38.04 hourly	8% - Average
Environmental Compliance Inspectors	4%	118	\$65,890 annual \$31.68 hourly	\$53,260 annual \$25.61 hourly	\$59,670 annual \$28.69 hourly	6% - Average
Calibration Technologists and Technicians	-	-	-	-	-	4% - Slower than average
Environmental Engineers	1%	12	\$84,480 annual \$40.62 hourly	\$79,920 annual \$38.42 hourly	-	4% - Slower than average

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
↓ Industrial Engineering Technologists and Technicians	-2%	4	\$62,800 annual \$30.19 hourly	-	-	4% - Slower than average
Civil Engineering Technologists and Technicians	0%	31	\$48,220 annual \$23.19 hourly	\$45,420 annual \$21.84 hourly	\$46,740 annual \$22.47 hourly	2% - Slower than average
↓ Water and Wastewater Treatment Plant and System Operators	3%	23	\$48,240 annual \$23.19 hourly	\$48,240 annual \$23.19 hourly	\$46,590 annual \$22.40 hourly	-3% - Decline

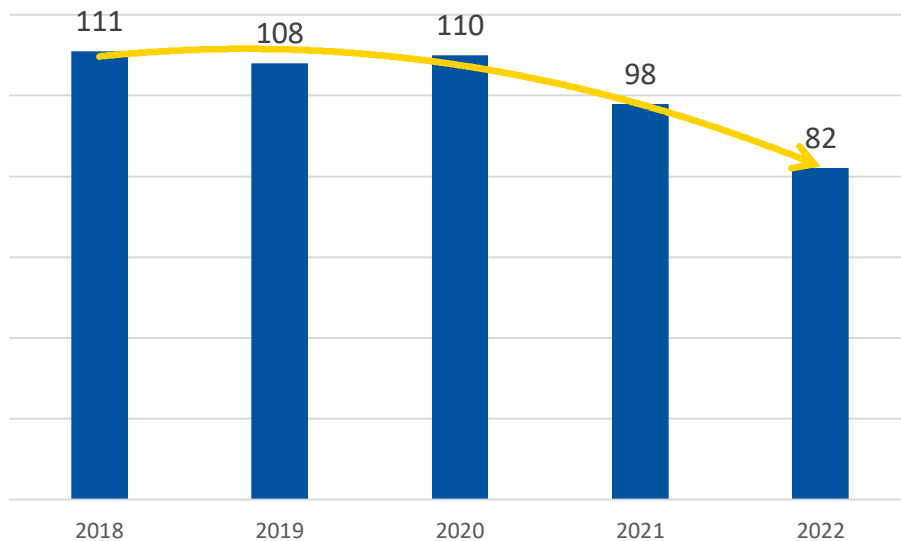
Source: Occupational Information Network, 2021; (-) = no data available

## Legal Support Services and Criminal Justice Technologies

The criminal justice system in the United States is the system that identifies crimes committed and provides judgement on those crimes. Students in the Legal Support Services and Criminal Justice Technologies program at Sussex Tech study Legal Services, Law Enforcement, Emergency and Fire Management Services, Correction Services, Security and Protective Services, and Crime Scene Investigation. This program prepares students for careers in law enforcement and emergency services. All students receive instruction from organizations such as police officers and emergency dispatchers. Potential careers include judicial case processor, security guard, and legal office receptionist.

All three Delaware vo-tech districts have a Legal Support Services or Criminal Justice program. Figure 25 below highlights the 2018–2022 enrollment in Legal Support Services and Criminal Justice. Enrollment for each year captures students in Grades 10, 11, and 12. Over the past five years, enrollment in Legal Support Services and Criminal Justice has declined, with a slight uptick in 2020. **Between 2018 and 2022, enrollment has varied. There was a slight uptick in 2020 and a decline from 2020 to 2022.**

Figure 25. Sussex Tech Legal Support Services and Criminal Justice Technologies Enrollment, 2018–2022



Source: Sussex County Vocational Technical School District, 2022

## Industry Standards and Credentials

There are nine national certifications that paralegals and legal assistants can earn (ONET, Paralegals, 2021) and 14 national certifications that security guards can earn (ONET, Security,



2021). These two ONET occupations are most closely related to legal support services and criminal justice. For a full list of national certifications related to legal services and criminal justice occupations see Appendix A.

Table 38 listed below summarizes the certifications offered at Sussex Tech and POLYTECH and the certifications recognized by DDOE. **For Legal Support Services and Criminal Justice Technologies, Sussex Tech prepares students for all three certifications that DDOE recognizes and one certification that aligns with POLYTECH.**

Table 38. Sussex Tech, POLYTECH, and DDOE Certifications—Legal Support Services and Criminal Justice Technologies

<i>Certification</i>	<i>Sussex Tech</i>	<i>POLYTECH</i>	<i>DDOE</i>
APCO International Public Safety Telecommunications PST-1 Cert.	✓	No	✓
State of Delaware Security Guard Licensing & Cert.	✓	No	✓
Paralegal Professional	✓	No	No
FEMA - Emergency Management Training	✓	✓	✓

Source: Sussex County Vocational Technical School District; Delaware Department of Education, 2021

## Labor Market Analysis

To analyze the labor market for occupations related to legal support services and criminal justice, this report provides information on a national “core occupation” that closely aligns with a Sussex Tech CTE Area. For this section, the national **core occupations are Paralegals and Legal Assistants and Security Guards**, which closely align with the **Sussex Tech CTE Area: Legal Support Services and Criminal Justice Technologies**. To provide more in-depth information, Table 39 below also has data on 10 occupations closely related to Paralegals and Legal Assistants and Security Guards.

## Key Takeaways: Legal Support Services and Criminal Justice Technologies

**The outlook for the Legal Support Services and Criminal Justice Technologies field is very positive.** In addition to other positive indicators, more than half of the occupations are projected to have a large number of annual openings in Delaware.


Of the 12 occupations examined:

- Four occupations are projected to be fast growing occupations in Delaware from 2020 to 2030. The top three are:
  - Public Safety Telecommunicators/Dispatchers (18%)
  - Security Guards (12%)
  - Police and Sherriff’s Patrol Officers (11%)

- Six occupations have a large number of projected annual openings in Delaware. The top three are:
  - Security Guards (454)
  - Paralegals and Legal Assistants (200)
  - Police and Sheriff’s Patrol Officers (148)
- Three occupations are considered by ONET to be “Bright Outlook” occupations based on national trends (indicated by the sun symbol in Table 39).
- One occupation is projected to decline nationally or in Delaware through 2030 (indicated by the red arrow in Table 39).

Table 39. Legal Support Services and Criminal Justice Technologies Occupational Analysis

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
 <b>Core Occupation:</b> <b>Security Guards</b>	12%	454	\$30,850 annual \$14.83 hourly	\$31,000 annual \$14.9 hourly	\$31,050 annual \$14.93 hourly	15% - Faster than average
 <b>Core Occupation:</b> <b>Paralegals and Legal Assistants</b>	9%	200	\$58,500 annual \$28.13 hourly	\$46,270 annual \$22.25 hourly	\$47,040 annual \$22.62 hourly	12% - Faster than average
 First-Line Supervisors of Security Workers	10%	41	\$47,850 annual \$23.00 hourly	\$47,040 annual \$22.62 hourly	\$50,450 annual \$24.25 hourly	10% - Faster than average
Transit and Railroad Police	-	-	\$64,930 annual \$31.21 hourly	-	-	9% - Average
Public Safety Telecommunicators/Dispatchers	18%	27	\$47,970 annual \$23.06 hourly	\$47,970 annual \$23.06 hourly	\$37,170 annual \$17.87 hourly	8% - Average
Police and Sheriff's Patrol Officers	11%	148	\$80,140 annual \$38.53 hourly	\$80,140 annual \$38.53 hourly	\$61,970 annual \$29.79 hourly	7% - Average
Court, Municipal, and License Clerks	2%	87	\$36,860 annual \$17.72 hourly	\$37,000 annual \$17.79 hourly	\$38,840 annual \$18.67 hourly	6% - Average
Transportation Security Screeners	-	-	-	-	-	0% - Little or no change
Eligibility Interviewers, Government Programs	8%	11	\$41,180 annual \$19.80 hourly	-	\$36,860 annual \$17.72 hourly	4% - Slower than average

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
Court Reporters and Simultaneous Captioners	6%	7	\$70,730 annual \$34.00 hourly	-	-	3% - Slower than average
Title Examiners, Abstractors, and Searchers	-	-	\$58,750 annual \$28.24 hourly	-	-	2% - Slower than average
 Legal Secretaries and Administrative Assistants	-23%	79	\$47,870 annual \$23.01 hourly	\$44,050 annual \$21.18 hourly	\$46,760 annual \$22.48 hourly	-21% Decline

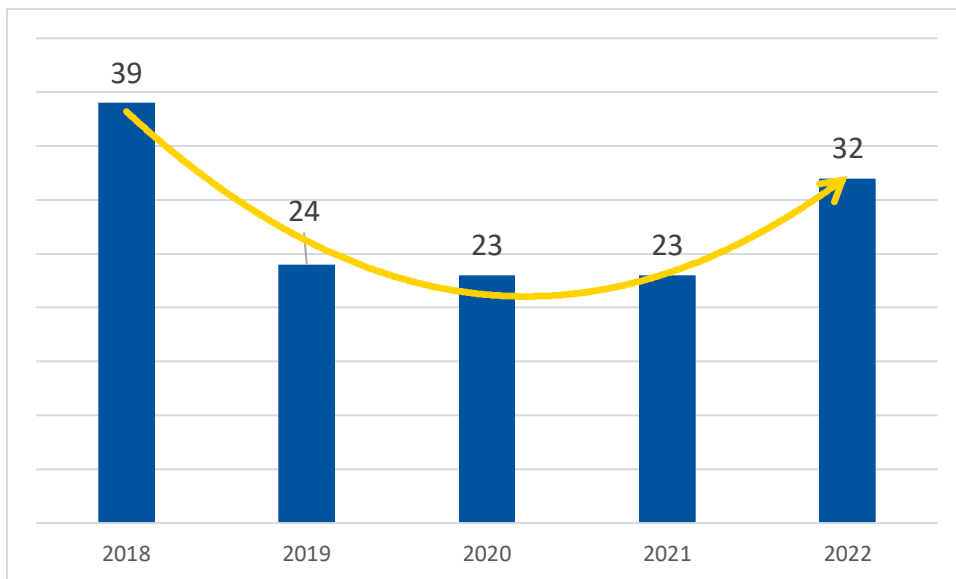
Source: Occupational Information Network, 2021; (-) = no data available

## Media Broadcasting Communications Technologies

Media Broadcasting Communications Technologies is the study of the production, communication, and dissemination techniques and methods used in written, oral, and visual media. At Sussex Tech, the Media Broadcasting Communications Technologies program is designed to give students experience on state-of-the-art broadcasting equipment and professional editing suites to prepare them for a variety of media careers. During their senior year, students can participate in WBL to gain work experience and learn valuable skills in a job setting. Potential careers in the media broadcasting and communications field include television reporter, audio engineer, and editor.

All three Delaware vo-tech districts have a Media Broadcasting Communications Technologies program. Figure 26 below highlights the 2018–2022 enrollment in Media Broadcasting Communications Technologies. Enrollment for each year captures students in Grades 10, 11, and 12. **Between 2018 and 2022 enrollment mostly declined then had an uptick in 2022.**

Figure 26. Sussex Tech Media Broadcasting Communications Technologies Enrollment, 2018–2022



Source: Sussex County Vocational Technical School District, 2022

### Industry Standards and Credentials

Avid Technology is the developer of Avid Media Composer, the industry standard software for film editing. Avid software is typically used in complex productions; it is a valuable tool to learn for anyone pursuing a traditional media career.

Adobe Inc. is the developer of a suite of media products known as Adobe Creative Cloud that are used in different types of media editing and publishing. In addition to the well-known image editor Adobe Photoshop, media professionals use Adobe Premiere Pro for video editing, Adobe After Effects for the creation and animation of visual effects and computer graphics, and Adobe Audition for audio mixing. For a full list of national certifications related to media and broadcasting occupations see Appendix A.

Table 40 listed below summarizes the certifications offered at Sussex Tech and POLYTECH and the certifications recognized by DDOE. **For Media Broadcasting Communications Technologies, Sussex Tech prepares students for three of the five certifications that DDOE recognizes and one of the same certifications as POLYTECH.**

Table 40. Sussex Tech, POLYTECH, and DDOE Certifications— Media Broadcasting Communications Technologies

<i>Certification</i>	<i>Sussex Tech</i>	<i>POLYTECH</i>	<i>DDOE</i>
AVID Media Composer 101 version 8.4	✓	No	✓
AVID Media Composer 110 version 8.4	✓	No	✓
Adobe Premiere Pro	✓	✓	✓
Adobe After Effects	No	✓	✓
Website Portfolio	No	No	✓

Source: Sussex County Vocational Technical School District; Delaware Department of Education, 2021

## Labor Market Analysis

To analyze the labor market for occupations related to automotive technology, this report provides information on a national “core occupation” that closely aligns with a Sussex Tech CTE Area. For this section, there are three national core occupations related to media broadcasting:

1. Broadcast Announcers and Radio Disc Jockeys
2. Audio and Video Technicians
3. Film and Video Editors

These three occupations closely align with the **Sussex Tech CTE Area: Media Broadcasting Communications Technologies**. To provide more in-depth information, Table 41 below also has data on 13 occupations closely related to Broadcast Announcers and Radio Disc Jockeys; Audio and Video Technicians; and Film and Video Editors.

## Key Takeaways: Media Broadcasting Communications Technologies

**The outlook for the Media Broadcasting Communications Technologies field is mixed.**

Delaware-specific data for the related occupations were limited and inconclusive. The available

Delaware data show several indicators of slow growth or decline in this career area, though the national outlook is much stronger.

Of the 16 occupations examined:









- Audio and Video Technicians (13%\*) is projected to be a fast-growing occupation in Delaware from 2020 to 2030.
- Public Relations Specialists (102) has a large number of projected annual openings in Delaware.
- Twelve occupations are considered by ONET to be “Bright Outlook” occupations based on national trends (indicated by the sun symbol in Table 41).
- Three occupations are projected to decline nationally or in Delaware through 2030 (indicated by the red arrow in Table 41).
  - Growth for Broadcast Technicians; News Analysts, Reporters, and Journalists; and Editors is projected to decline in Delaware.

\*The projected growth is 13 percent, but there are only eight annual openings between 2020 and 2030. The field may be growing, but job openings for Sussex Tech graduates are not guaranteed.

Enrollment

- Between 2018 and 2022 enrollment mostly declined then had an uptick in 2022.

Table 41. Media Broadcasting Communications Technologies Occupational Analysis

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
 <b>Core Occupation: Film and Video Editors</b>	-	-	-	-	-	33% - Faster than average
 <b>Core Occupation: Audio and Video Technicians</b>	13%	8	\$59,770 annual \$28.73 hourly	-	\$48,010 annual \$23.08 hourly	26% - Faster than average
 Media Programming Directors	2%	4	\$50,250 annual \$24.16 hourly	-	\$47,470 annual \$22.82 hourly	24% - Faster than average
 Media Technical Directors/Managers	2%	4	\$50,250 annual \$24.16 hourly	-	\$47,470 annual \$22.82 hourly	24% - Faster than average
 Producers and Directors	2%	4	\$50,250 annual \$24.16 hourly	-	\$47,470 annual \$22.82 hourly	24% - Faster than average
 Camera Operators, Television, Video, and Film	-	-	-	-	-	24% - Faster than average
 Sound Engineering Technicians	-	-	-	-	-	17% - Faster than average
 Lighting Technicians	-	-	-	-	-	16% - Faster than average



<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
 Special Effects Artists and Animators	-	-	-	-	-	16% - Faster than average
 Public Relations Specialists	5%	102	\$61,890 annual \$29.76 hourly	\$56,640 annual \$27.23 hourly	\$49,860 annual \$23.97 hourly	11% - Faster than average
 Broadcast Technicians	-6%	1	-	-	-	11% - Faster than average
 <b>Core Occupation: Broadcast Announcers and Radio Disc Jockeys</b>	-	-	-	-	-	10% - Faster than average
 News Analysts, Reporters, and Journalists	-17%	8	\$47,990 annual \$23.07 hourly	-	-	6% - Average
 Editors	-9%	16	\$62,900 annual \$30.24 hourly	-	\$48,910 annual \$23.51 hourly	5% - Average
Proofreaders and Copy Markers	-	-	-	-	-	5% - Average
Calibration Technologists and Technicians	-	-	-	-	-	4% - Slower than average

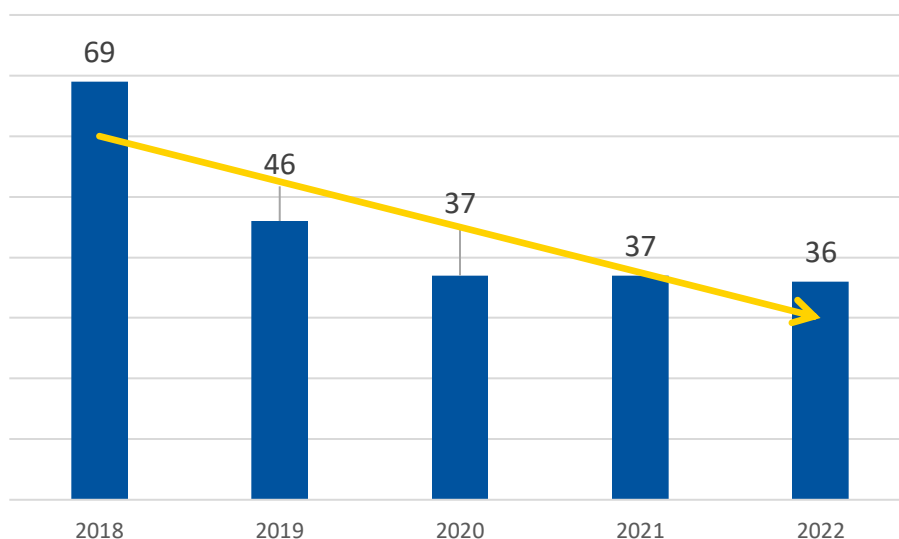
Source: Occupational Information Network, 2021; (-) = no data available

## Physical Therapy – Athletic Health Care

Physical Therapy – Athletic Health Care refer to the processes for improving mobility and strength, restoring independence, relieving pain, and recovering from sports-related injuries. At Sussex Tech, the physical therapy course is designed to prepare students for a broad range of careers in personal therapy and athletic training. The unit provides general background on healthcare terminology, CPR and First-Aid certification, and hands on experience in physical therapy and personal training. During senior year, students can participate in WBL to gain work experience and learn valuable skills in a job setting. Careers in the athletic healthcare include physical therapist or assistant, fitness instructor, and paramedic.

All three Delaware vo-tech districts have a Physical Therapy – Athletic Health Care program. Figure 27 below highlights the 2018–2022 enrollment in Physical Therapy – Athletic Health Care. Enrollment for each year captures students in Grades 10, 11, and 12. **Between 2018 and 2022, enrollment has declined; 2022 enrollment was about half the 2018 enrollment.**

Figure 27. Sussex Tech Physical Therapy – Athletic Health Care Enrollment, 2018–2022



Source: Sussex County Vocational Technical School District, 2022

## Industry Standards and Credentials

The American Heart Association is one of the leading cardiovascular research and education organizations in the United States, and one of the most widely recognized providers of First Aid and CPR training along with the American Red Cross. The organization provides training courses leading to a 2-year certification in First Aid, CPR, and AEDs. It is usually required, if not strongly

desired, to hold this type of certification in the physical therapy and athletic training field. For a full list of national certifications related to Physical Therapy – Athletic Health Care see Appendix A.

Table 42 listed below summarizes the certifications offered at Sussex Tech and the certifications recognized by DDOE. **For Physical Therapy – Athletic Health Care, Sussex Tech prepares students for three of the four certifications that DDOE recognizes.**

Table 42. Sussex Tech and DDOE Certifications—Physical Therapy – Athletic Health Care

<i>Certification</i>	<i>Sussex Tech</i>	<i>DDOE</i>
AHA Heart Saver First Aid/CPR AED	✓	No
Physical Therapy Assistant Aide	✓	✓
AHA Healthcare Professional Basic Life Support	✓	✓
NSCA Certified Personal Trainer	✓	✓
AECA Certified Rehabilitation Technician	No	✓
AHA Blood Borne Pathogens	✓	No

Source: Sussex County Vocational Technical School District; Delaware Department of Education, 2021

## Labor Market Analysis

To analyze the labor market for occupations related to Physical Therapy – Athletic Health Care, this report provides information on a national “core occupation” that closely aligns with a Sussex Tech CTE Area. For this section, there are three national core occupations that relate:

1. Athletic Trainers
2. Physical Therapists
3. Physical Therapist Aides

These occupations closely align with the **Sussex Tech CTE Area: Physical Therapy – Athletic Health Care**. To provide more in-depth information, Table 43 below also has data on six occupations closely related to Athletic Trainers, Physical Therapists, and Physical Therapist Aides.

## Key Takeaways: Physical Therapy – Athletic Health Care

**The outlook for the Physical Therapy – Athletic Health Care field is very positive.** In addition to other positive indicators, more than half of the occupations are projected to be fast growing occupations. Additionally, the three core occupations are “Bright Outlook” occupations.

Of the nine occupations examined:









- Six occupations are projected to be fast growing occupations in Delaware from 2020 to 2030. The top three are:
  - Physical Therapist Assistants (42%)

- Psychiatric Technicians (29%)
  - Physical Therapist Aides (28%)
- Two occupations have a large number of projected annual openings in Delaware:
  - Physical Therapists (69)
  - Physical Therapist Assistants (46)
- Eight occupations are considered by ONET to be “Bright Outlook” occupations based on national trends (indicated by the sun symbol in Table 43).
- No occupations are projected to decline nationally or in Delaware through 2030.

Enrollment:

- Between 2018 and 2022, enrollment has declined; 2022 enrollment was about half the 2018 enrollment.

Table 43. Physical Therapy – Athletic Health Care Occupational Analysis

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
 Occupational Therapy Assistants	-	-	\$77,960 annual \$37.48 hourly	-	\$64,030 annual \$30.78 hourly	36% - Faster than average
 Physical Therapist Assistants	42%	46	\$71,730 annual \$34.49 hourly	\$62,510 annual \$30.05 hourly	\$60,780 annual \$29.22 hourly	35% - Faster than average
 <b>Core Occupation: Physical Therapist Aides</b>	28%	26	\$29,520 annual \$14.19 hourly	-	\$28,350 annual \$13.63 hourly	25% - Faster than average
 <b>Core Occupation: Athletic Trainers</b>	-	-	\$46,910 annual N/A hourly	-	-	23% - Faster than average
 <b>Core Occupation: Physical Therapists</b>	25%	69	\$97,630 annual \$46.94 hourly	\$98,160 annual \$47.19 hourly	\$93,500 annual \$44.95 hourly	21% - Faster than average
 Occupational Therapy Aides	-	-	-	-	-	21% - Faster than average
 Psychiatric Technicians	29%	29	\$36,450 annual \$17.53 hourly	-	\$36,450 annual \$17.52 hourly	13% - Faster than average
 Recreational Therapists	16%	11	\$36,990 annual \$17.79 hourly	-	-	10% - Faster than average
Psychiatric Aides	24%	26	\$32,880 annual \$15.81 hourly	-	-	7% - Average

Source: Occupational Information Network, 2021; (-) = no data available

## Welding and Fabrication Technology

Welding and Fabrication is the practice of using heat, pressure, or both to fuse metal into usable products. The practice is an essential piece of manufacturing, construction, and other production-based industries. At Sussex Tech, the welding and fabrication course is designed to give students a broad overview of the tools and processes used in the welding field and the associated skills needed to succeed in the workforce. The unit covers the three most commonly used thermal cutting processes, several common welding processes, and associated skills in metal fabrication, blueprint reading, and metallurgy. During senior year, students can choose one of three specializations and participate in WBL to gain work experience and learn valuable skills in a job setting. Potential careers in the welding field include construction welders, pipefitters, and boilermakers.

Sussex Tech recently added the Welding and Fabrication CTE program to their school, so there is no enrollment data available. NCCVT and POLYTECH both have courses related to Welding and Fabrication.

### Industry Standards and Credentials

NCCER has developed curricula for more than 70 craft and maintenance areas, including a four-level curriculum for welding that covers oxyfuel cutting, welding symbols, and stainless-steel groove welds.

The American Welding Society (AWS) works to advance the science, technology, and application of welding and allied joining and cutting processes worldwide, including brazing, soldering, and thermal spraying. AWS is the standard professional organization for people in the welding profession and is an extremely helpful certification to achieve.

Table 44 listed below summarizes the certifications offered at Sussex Tech and POLYTECH and the certifications recognized by DDOE. There was insufficient data for the welding CTE area at POLYTECH, and it is currently unclear exactly how many certifications DDOE offers. For Welding and Fabrication Technology, Sussex Tech plans to prepare students for four certifications, two of which DDOE recognizes.

Table 44. Sussex Tech, POLYTECH, and DDOE Certifications—Welding and Fabrication Technology

<i>Certification</i>	<i>Sussex Tech</i>	<i>POLYTECH</i>	<i>DDOE</i>
NCCER Welding Level 1 Module Cert. (CORE)	SY 22–23	✓	✓
NCCER Welding Level II Module Cert.	No	?	✓
AWS Sense Level 1	SY 22–23	?	?
AWS D1.1	SY 22–23	?	?

<i>Certification</i>	<i>Sussex Tech</i>	<i>POLYTECH</i>	<i>DDOE</i>
DE State Apprenticeship Advanced Placement	SY 22–23	?	✓

Source: Sussex County Vocational Technical School District; Delaware Department of Education, 2021

\*The question mark (?) indicates it is unclear if this certification is offered.

## Labor Market Analysis

To analyze the labor market for occupations related to Welding and Fabrication Technology, this report provides information on a national “core occupation” that closely aligns with a Sussex Tech CTE Area. For this section, the national **core occupation is Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders**, which closely aligns with the **Sussex Tech CTE Area: Welding and Fabrication Technology**. To provide more in-depth information, Table 45 below also has data on 10 occupations closely related to Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders.

## Key Takeaways: Welding and Fabrication Technology





**The outlook for the Welding and Fabrication Technology field is mixed.** While there are positive indicators such as a strong number of job openings in three occupations and strong growth in two, a majority of the related occupations in this area are projected to decline.

Of the 11 occupations examined:

- Two occupations are projected to be fast growing occupations in Delaware from 2020 to 2030:
  - Industrial Machinery Mechanics (17%)
  - Woodworking Machine Setters, Operators, and Tenders, Except Sawing (14%\*)
- Three occupations have a large number of projected annual openings in Delaware:
  - Industrial Machinery Mechanics (101)
  - Welders, Cutters, Solderers, and Brazers (76)
  - Electrical and Electronic Equipment Assemblers (41)
- One occupation is considered by ONET to be a “Bright Outlook” occupation (indicated by the sun symbol in Table 45).
- Six occupations are projected to decline nationally or in Delaware through 2030 (indicated by the red arrow in Table 45).

\*The projected growth is 14 percent, but there are only three annual openings between 2020 and 2030. The field may be growing, but job openings for Sussex Tech graduates are not guaranteed.

Table 45. Welding and Fabrication Technology Occupational Analysis

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
 Industrial Machinery Mechanics	17%	101	\$61,670 annual \$29.65 hourly	\$60,470 annual \$29.07 hourly	\$48,040 annual \$23.10 hourly	21% - Faster than average
Woodworking Machine Setters, Operators, and Tenders, Except Sawing	14%	3	-	-	-	10% - Average
Welders, Cutters, Solderers, and Brazers	3%	76	\$48,210 annual \$23.18 hourly	\$47,940 annual \$23.05 hourly	\$39,570 annual \$19.02 hourly	8% - Average
Electrical and Electronic Equipment Assemblers	0%	41	\$37,460 annual \$18.01 hourly	-	\$29,630 annual \$14.25 hourly	7% - Average
<b>Core Occupation: Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders</b>	-	-	-	-	-	-1% - Little or no change
 Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	-	-	-	-	-	-4% - Decline
 Structural Metal Fabricators and Fitters	-2%	13	\$48,210 annual \$23.18 hourly	-	-	-11% - Decline
 Forging Machine Setters, Operators, and Tenders, Metal and Plastic	-	-	-	-	-	-13% - Decline



<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
↓ Grinding and Polishing Workers, Hand	-	-	-	-	-	-14% - Decline
↓ Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic	-	-	-	-	-	-15% - Decline
↓ Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	-	-	-	-	-	-16% - Decline

Source: Occupational Information Network, 2021; (-) = no data available

## CTE Programs for Consideration

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This section of the report provides information on three CTE programs for consideration: **Plumbing, Culinary Arts, and Emergency Medical Technician (EMT)**. These three courses were included based on Sussex Tech’s interest in a plumbing program and research that showed Culinary Arts and EMT programs are commonly offered at vo-tech schools around the country.

### Plumbing

Plumbers install and repair the piping for gas, water, and other systems. This can take place in residential housing, businesses, or factories/warehouses. They also install fixtures such as sinks and toilets, repair and replace septic systems, and maintain existing drainage systems such as sinks. Potential careers include plumber, pipefitter, and commercial building maintenance.

### Industry Standards and Credentials

NCCER offers a four-level curriculum covering topics such as plumbing tools, types of valves and potable water treatment (National Center for Construction Education & Research). For a full list of national certifications related to plumbing see Appendix A. NCCVT is the only vo-tech district in Delaware that has a plumbing program, and they prepare students for a NCCER certification. **DDOE recognizes one plumbing certification—the NCCER Plumbing Module Certification.**

### Labor Market Analysis

To analyze the labor market for occupations related to plumbing, this report provides information on a national “core occupation” that closely aligns with the CTE Area. For this section, the national **core occupation is Plumbers, Pipefitters, and Steamfitters**, which closely aligns with the **CTE Program: Plumbing**. To provide more in-depth information, Table 46 below also has data on 10 occupations closely related to Plumbers, Pipefitters, and Steamfitters.

### Key Takeaways: Plumbing


**The outlook for the Plumbing field is very positive.** More than half of the occupations are projected to be fast growing, have a large number of projected annual openings, or both.

Of the 11 occupations examined:

- Seven occupations are projected to be fast growing occupations in Delaware from 2020 to 2030. The top three are:
  - Septic Tank Services and Sewer Pipe Cleaners (25%)
  - Construction Laborers (21%)
  - Plumbers, Pipefitters, and Steamfitters (15%)

- Six occupations have a large number of projected annual openings in Delaware. The top three are:
  - General Maintenance and Repair Workers (328)
  - Construction Laborers (304)
  - Heating, Air Conditioning, and Refrigeration Mechanics and Installers (177)
- One occupation is considered by ONET to be a “Bright Outlook” occupation (indicated by the sun symbol in Table 46).
- One occupation is projected to decline nationally or in Delaware through 2030 (indicated by the red arrow in Table 46).

Table 46. Plumbing Occupational Analysis

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
 Septic Tank Servicers and Sewer Pipe Cleaners	25%	18	\$44,650 annual \$21.47 hourly	-	\$45,190 annual \$21.73 hourly	14% - Faster than average
Construction Laborers	21%	304	\$37,630 annual \$18.09 hourly	\$35,160 annual \$16.90 hourly	\$33,480 annual \$16.10 hourly	8% - Average
Maintenance and Repair Workers, General	5%	328	\$43,920 annual \$21.12 hourly	\$37,820 annual \$18.18 hourly	\$37,510 annual \$18.03 hourly	8% - Average
Helpers—Pipelayers, Plumbers, Pipefitters, and Steamfitters	14%	31	\$36,410 annual \$17.50 hourly	\$35,220 annual \$16.93 hourly	\$36,360 annual \$17.48 hourly	6% - Average
Stationary Engineers and Boiler Operators	6%	6	\$71,440 annual \$34.35 hourly	-	\$60,970 annual \$29.31 hourly	6% - Average
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	10%	177	\$54,010 annual \$25.96 hourly	\$48,390 annual \$23.26 hourly	\$47,520 annual \$22.85 hourly	5% - Average
<b>Core Occupation: Plumbers, Pipefitters, and Steamfitters</b>	15%	145	\$62,640 annual \$30.11 hourly	\$60,200 annual \$28.94 hourly	\$48,280 annual \$23.21 hourly	5% - Average
Solar Thermal Installers and Technicians	15%	145	\$62,640 annual \$30.11 hourly	\$60,200 annual \$28.94 hourly	\$48,280 annual \$23.21 hourly	5% - Average

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
Boilermakers	-	-	-	-	-	-1% - Little or no change
Control and Valve Installers and Repairers, Except Mechanical Door	12%	3	\$61,800 annual \$29.71 hourly	\$60,890 annual \$29.27 hourly	\$61,190 annual \$29.42 hourly	2% - Slower than average
↓ Pipelayers	8%	14	\$40,640 annual \$19.54 hourly	\$36,690 annual \$17.64 hourly	-	-2% - Decline

Source: Occupational Information Network, 2021; (-) = no data available

## Culinary Arts

Culinary Arts refers to the preparation, cooking, plating, presentation, and service of food. This can also include baking and pastries but not always. Students can get a job right out of high school or pursue higher education at a 2-year or culinary institute. Students can also earn industry certifications at the completion of a culinary arts program (Larson, 2022). Potential careers in the Culinary Arts field include executive chef, baker, and restaurant manager.

### Industry Standards and Credentials

The American Culinary Federation, Inc. is the certifying organization for eight out of 10 national certifications for Restaurant Cooks. For a full list of national certifications related to occupations related to Culinary Arts see Appendix A.

**All Delaware vo-tech districts except Sussex Tech have a Culinary Arts program** and all four high schools in the NCCVT district offer Culinary Arts. Listed below are the certifications offered at POLYTECH and recognized by DDOE. Table 47 shows that **DDOE recognizes six certifications related to Culinary Arts.**

Table 47. POLYTECH and DDOE Certifications—Culinary Arts

<i>Certification</i>	<i>POLYTECH</i>	<i>DDOE</i>
iCEV AMSA Culinary Meat Selection and Cookery	No	✓
iCEV Food Safety and Science Cert.	No	✓
iCEV Meat Evaluation Cert.	No	✓
iCEV Plant Science Cert.	No	✓
ProStart National Cert. of Achievement (COA)	✓	✓
ServSafe Manager Cert.	✓	✓
ServSafe Food Handler	✓	?

Source: Delaware Department of Education, 2021

\*The question mark (?) indicates it is unclear if this certification is offered.

### Labor Market Analysis

To analyze the labor market for occupations related to plumbing, this report provides information on a national “core occupation” that closely aligns with a CTE Program. For this section, the national **core occupation is Restaurant Cooks**, which closely aligns with the **CTE Program: Culinary Arts**. To provide more in-depth information, Table 48 below also has data on 10 occupations closely related to Restaurant Cooks.

## Key Takeaways: Culinary Arts

**The outlook for the Culinary Arts field is very positive.** In addition to strong projected growth in several occupations, more than half of the occupations are projected to have a large number of job openings. Additionally, the core occupation is a “Bright Outlook” occupation.

Of the 11 occupations examined:

- Five occupations are projected to be fast growing occupations in Delaware from 2020 to 2030. The top three are:
  - Restaurant Cooks (54%)
  - Chefs and Head Cooks (33%)
  - Short Order Cooks (18%)
- Six occupations have a large number of projected annual openings in Delaware. The top three are:
  - Restaurant Cooks (674)
  - Food Preparation Workers (626)
  - Institution and Cafeteria Cooks (394)
- Two occupations are considered by ONET to be “Bright Outlook” occupations based on national trends (indicated by the sun symbol in Table 48).
- Two occupations are projected to decline nationally or in Delaware through 2030 (indicted by the red arrow in Table 48).

Delaware Considerations:

- All Delaware vo-tech districts except Sussex Tech have a Culinary Arts program and all four high schools in the NCCVT district offer Culinary Arts.
- In Delaware and the counties, jobs in food production are most common. In Sussex County, the two largest employers are Perdue Farms Inc. and Mountaire Farms Inc.
  - This information, in combination with the positive outlook for culinary occupations, and large number of projected openings may inform decision-makers and school leaders at Sussex Tech about the potential value a Culinary Arts program could bring to the high school.

Table 48. Culinary Arts Occupational Analysis

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
 <b>Core Occupation: Restaurant Cooks</b>	54%	674	\$29,910 annual \$14.38 hourly	\$28,930 annual \$13.91 hourly	\$28,980 annual \$13.93 hourly	49% - Much faster than average
 Chefs and Head Cooks	33%	79	\$50,080 annual \$24.08 hourly	\$43,580 annual \$20.95 hourly	\$47,840 annual \$23.00 hourly	25% - Much faster than average
Bakers	2%	19	\$29,840 annual \$14.34 hourly	-	\$29,500 annual \$14.18 hourly	10% - Average
Cooks, Short Order	18%	32	\$23,010 annual \$11.06 hourly	-	\$24,440 annual \$11.75 hourly	10% - Average
Cooks, Institution and Cafeteria	2%	394	\$38,310 annual \$18.42 hourly	\$38,310 annual \$18.42 hourly	\$37,180 annual \$17.88 hourly	7% - Average
Food Batchmakers	2%	21	\$30,190 annual \$14.52 hourly	\$35,880 annual \$17.25 hourly	\$29,500 annual \$14.18 hourly	6% - Average
Food Preparation Workers	11%	626	\$28,100 annual \$13.51 hourly	\$26,920 annual \$12.94 hourly	\$26,360 annual \$12.67 hourly	6% - Average
Food Cooking Machine Operators and Tenders	-	-	-	-	-	5% - Average
Cooks, Private Household	-	-	-	-	-	2% - Slower than average



<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
↓ Cooks, Fast Food	2%	170	\$23,220 annual \$11.16 hourly	\$22,070 annual \$10.61 hourly	\$21,990 annual \$10.57 hourly	-2% - Decline
↓ Butchers and Meat Cutters	13%	20	\$38,960 annual \$18.73 hourly	\$36,960 annual \$17.77 hourly	\$37,360 annual \$17.96 hourly	-5% - Decline

Source: Occupational Information Network, 2021; (-) = no data available

## Emergency Medical Services

Emergency Medical Technicians and Responders provide emergent medical care and transportation of patients to medical facilities. They provide basic care to stabilize patients and can manage respiratory, cardiac, and trauma emergencies (U.S. Bureau, 2022). Potential careers can include Emergency Medical Technician, paramedic, and firefighter.

### Industry Standards and Credentials

Common national certifications include the AED certification from the Red Cross and the Emergency Medical Technician (EMT) and Emergency Medical Responder (EMR) certifications from the National Registry of Emergency Medical Technicians.

NCCVT is the only district in Delaware that offers an EMT program and the certifications they prepare their students for are: CPR & AED, EMR, EMT, First Aid, and First Responder Exam (New Castle County Vocational Technical School District, Emergency). Table 49 shows that **DDOE recognizes five certifications related to EMT/EMS.**

Table 49. DDOE Certifications—Emergency Medical Services

<i>Certification</i>	<i>DDOE</i>
Community Emergency Response Training (CERT)	✓
Emergency Medical Technician (EMT)	✓
Emergency Medical Response (EMR)	✓
EMT Certification Registry	✓
FEMA Emergency Management Training	✓

Source: Delaware Department of Education, 2021

### Labor Market Analysis

To analyze the labor market for occupations related to Emergency Medical Services, this report provides information on a national “core occupation” that closely aligns with a CTE Program. For this section, the national **core occupation is Emergency Medical Technicians**, which closely aligns with the **CTE Program: Emergency Medical Technicians**. To provide more in-depth information, Table 50 below also has data on 10 occupations closely related to EMTs.






### Key Takeaways: Emergency Medical Services

**The outlook for the Emergency Medical Services field is very positive.** Every occupation is projected to be fast growing, have a large number of annual openings, or both. Additionally, the core occupation is a “Bright Outlook” occupation.

Of the 11 occupations examined:

- All 11 occupations are projected to be fast growing occupations in Delaware from 2020 to 2030. The top three are:
  - Respiratory Therapists (30%)
  - Emergency Medical Technicians and Paramedics (18%)
- Seven occupations have a large number of projected annual openings in Delaware. The top three are:
  - Critical Care Nurses and Registered Nurses (818)
  - Nursing Assistants (698)
  - Licensed Practical and Licensed Vocational Nurses (220)
- Five occupations are considered by ONET to be “Bright Outlook” occupations based on national trends (indicated by the sun symbol in Table 50).
- No occupations are projected to decline nationally or in Delaware through 2030.

Table 50. Emergency Medical Services Occupational Analysis

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
 Respiratory Therapists	30%	41	\$74,970 annual \$36.04 hourly	\$66,260 annual \$31.86 hourly	\$61,150 annual \$29.4 hourly	23% - Faster than average
 Ambulance Drivers and Attendants, Except Emergency Medical Technicians	16%	13	\$30,300 annual \$14.57 hourly	-	\$29,660 annual \$14.26 hourly	16% - Faster than average
 <b>Core Occupation: Emergency Medical Technician</b>	18%	87	\$36,810 annual \$17.70 hourly	\$33,750 annual \$16.23 hourly	\$34,310 annual \$16.5 hourly	11% - Faster than average
 Paramedics	18%	87	\$59,280 annual \$28.50 hourly	-	\$46,950 annual \$22.57 hourly	11% - Faster than average
 Surgical Assistants	15%	25	-	-	-	11% - Faster than average
Acute Care Nurses	15%	818	\$75,380 annual \$36.24 hourly	\$74,910 annual \$36.01 hourly	\$74,760 annual \$35.94 hourly	9% - Average
Critical Care Nurses	15%	818	\$75,380 annual \$36.24 hourly	\$74,910 annual \$36.01 hourly	\$74,760 annual \$35.94 hourly	9% - Average
Licensed Practical and Licensed Vocational Nurses	16%	220	\$55,290 annual \$26.58 hourly	\$48,070 annual \$23.11 hourly	\$47,860 annual \$23.01 hourly	9% - Average

<i>Occupation</i>	<i>Projected Growth Delaware (2020–2030)</i>	<i>Projected Annual Job Openings DE (2020–2030)</i>	<i>Median Wages Delaware (2021)</i>	<i>Median Wages Dover, DE Area (2021)</i>	<i>Median Wages Salisbury, MD Area (2021)</i>	<i>Projected Growth National (2020–2030)</i>
Registered Nurses	15%	818	\$75,380 annual \$36.24 hourly	\$74,910 annual \$36.01 hourly	\$74,760 annual \$35.94 hourly	9% - Average
Cardiovascular Technologists and Technicians	16%	24	\$47,400 annual \$22.79 hourly	-	\$60,110 annual \$28.9 hourly	8% - Average
Nursing Assistants	14%	698	\$34,970 annual \$16.81 hourly	\$30,230 annual \$14.53 hourly	\$29,590 annual \$14.23 hourly	8% - Average

Source: Occupational Information Network, 2021; (-) = no data available

## Next Steps for Consideration

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Currently, Sussex Tech does an excellent job preparing students in English Language Arts and math and has high graduation rates compared to public schools in Delaware. Between 2018 and 2019, Sussex Tech showed a significant increase in the percentage of students who were both college and career ready (from 52.7% to 73.6%, see Figures 3 and 4). To continue to provide students an excellent education and purposeful career preparation, next steps for consideration are listed below.

Based on the report findings and key takeaways, the next steps are:

- **Review each CTE program holistically.**
  - Take into consideration the largest employers in Delaware and the counties, enrollment and WBL trends, industry credentials (both national and statewide), and projected growth and annual job openings between 2020 and 2030 (with particular attention to the state of Delaware; Dover, Delaware; and Salisbury, Maryland).
  - Reference Tables 1 and 2 in the executive summary for an overview of all CTE programs and the key takeaways from the report.
- **Perform yearly data collection and updates around the certifications offered at Sussex Tech, POLYTECH, and NCCVT and the certifications recognized by DDOE.** Alignment in certifications across the state will help students have a coherent experience and better prepare them for the Delaware and national workforce. Alignment will also help schools and districts communicate and plan more openly, effectively, and efficiently.
- **Provide yearly exit surveys for graduating seniors to collect data on their plans after graduation.** These data can inform Sussex Tech about where students end up after graduation and how well the school meets its goal to prepare students for college and career. These data can also help Sussex Tech collect employer information and potentially create new relationships and WBL opportunities.
- **Consider the research findings from this report and compare them to the 2022 Sussex Tech Strategic Plan.**

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## Appendices

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Appendix A: ONET National Certifications

Appendix B: Certifications Offered at New Castle County Vocational Technical School District

Appendix C: Comparison of Career and Technical Education Programs Offered at Delaware Vocational Technical School Districts

## Appendix A: ONET National Certifications

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This list provides links to certifications related to the ONET core occupation(s) referenced in the report.

### **Automotive Technologies**

- Automotive Service Technicians and Mechanics [certifications](#).

### **Business, Finance, and Marketing Technologies**

- Bookkeeping, Accounting, and Auditing Clerks [certifications](#).
- Office Clerks [certifications](#).
- Information Technology Project Managers [certifications](#).

### **Carpentry and Construction Management**

- Carpenters [certifications](#).
- Construction Management [certifications](#).

### **Cisco Networking**

- Computer Network Support Specialist [certifications](#).

### **Collision Repair Technologies**

- Automotive Body and Related Repairers [certifications](#).

### **Cosmetology**

- Hairdressers, Hairstylists, and Cosmetologists [certifications](#).

### **Dental Services and Technologies**

- Dental Assistants [certifications](#).

### **Digital Publishing and Design Technologies**

- Graphic Designers [certifications](#).

### **Early Care and Education**

- Childcare Workers [certifications](#).

### **Electrical and Green Energy Technologies**

- Electricians [certifications](#).

### **Electronics**

- Electronics Engineers, Except Computer [certifications](#).

### **Health Professions**

- Nursing Assistants [certifications](#).

### **HVAC-R Engineering**

- Heating, Air Conditioning, and Refrigeration Mechanics and Installers [certifications](#).

**Landscape Management and Environmental Technologies**

- Environmental Engineering Technologists and Technicians [certifications.](#)

**Legal Support Services and Criminal Justice Technologies**

- Paralegals and Legal Assistants [certifications.](#)
- Security Guards [certifications.](#)

**Media Broadcasting Communications Technologies**

- Broadcast Announcers and Radio Disc Jockeys (DJ's) [certifications.](#)
- Audio and Video Technicians [certifications.](#)
- Film and Video Editors [certifications.](#)

**Physical Therapy – Athletic Health Care**

- Athletic Trainers [certifications.](#)
- Physical Therapists [certifications.](#)
- Physical Therapist Aides [certifications.](#)

**Welding and Fabrication Technologies**

- Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders [certifications.](#)

**Plumbing**

- Plumbers, Pipefitters, and Steamfitters [certifications.](#)

**Culinary Arts**

- Restaurant Cooks [certifications.](#)

**Emergency Medical Services**

- Emergency Medical Technicians [certifications.](#)

# Appendix B: Certifications Offered at New Castle County Vocational Technical School District

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These certifications are organized by the 18 CTE programs offered at Sussex Tech.

## **Automotive Technologies**

- I-CAR Non-Structural Repair
- ProLevel 1
- Refinish ProLevel I
- NOCTI
- NATEF
- ASE

## **Business, Finance, and Marketing Technologies**

- American Institute of Banking – Principles of Banking
- Microsoft Program Certifications (Word, Excel, PowerPoint, Access, & Outlook)

## **Carpentry and Construction Management**

- NCCER Core

## **Cisco Networking**

- COMPTIA A+ (Cisco IT Essentials)
- Cisco Certified Entry Network Technician (CCNET)

## **Collision Repair Technologies**

- I-CAR Non-Structural Repair: ProLevel 1
- I-CAR Refinish ProLevel I
- ASE

## **Cosmetology**

- DE State Cosmetology Board Certification

## **Dental Services and Technologies**

- BLS Health Care Provider
- CPR Certification
- DDRT/Delaware Dental Radiologic Technology Exam

## **Electrical and Green Energy Technologies**

- NCCER

## **Electronics**

- CompTIA A+ (Cisco IT Essentials)
- Cisco Certified Entry Network Technician (CCENT)

## **Health Professions**

- EKG Technician (NHA)
- NCHSE
- CPR/AED
- FIRST AID
- CCMA (NCCA-accredited testing)
- CMAA (NCCA-accredited testing)
- Certified Registered Central Service Technician, distributed by IAHCSSM (International Association of Healthcare Central Service and Material Management)
- Certified Nursing Assistant

## **HVAC-R Engineering**

- HVACR Technician Training Accreditation
- NCCER
- CFC-EPA Certification

## **Landscape Management and Environmental Technologies**

- Not Offered at NCCVT

## **Legal Support Services and Criminal Justice Technologies**

- Public Safety
- Telecommunications
- DE State Private Security

### **Digital Publishing and Design Technologies**

- Adobe Photoshop CS
- Adobe Illustrator CS
- Adobe ACE Specialist
- Adobe ACE Master
- ICIA Certified Tech. Specialist
- GAERFPrintED Accreditation for Intro to Graphic Arts and Graphic Design
- MS Program Certifications
- Adobe Certified Associate

### **Early Care and Education**

- Infant, Toddler, & Adult CPR/First Aid
- Early Learning Foundation
- Training in Early Care & Education I & II
- Intern Certificate Early Childhood and School Age Care
- Adult CPR/First Aid
- ParaPro Certification
- Praxis Core

### **Media Broadcasting Communications Technologies**

- Adobe Photoshop CS
- Adobe Illustrator CS
- Adobe ACE Specialist
- Adobe ACE Master
- ICIA Certified Technology Specialist

### **Physical Therapy – Athletic Health Care**

- First Aid and CPR/AED
- Certified Medical Administrative Assistant
- Physical Therapy Aide Certification

### **Welding and Fabrication Technology**

- NCCER Level 1
- Apprenticeship Advanced Placement
- American Welding Society

## Appendix C: Comparison of Career and Technical Education Programs Offered at Delaware Vocational Technical School Districts

<i>Program</i>	<i>Sussex Tech</i>	<i>POLYTECH</i>	<i>Delcastle Technical High School (NCCVT)</i>	<i>Hodgson Vo-tech High School (NCCVT)</i>	<i>Howard High School of Technology (NCCVT)</i>	<i>St. Georges High School (NCCVT)</i>
Agriculture Science and Animal & Plant Biotechnology						
Auto/Diesel Technologies	x	x	x	x	x	x
Aviation Technology			x			
Baking and Pastry						
Biomedical Science/Biotechnology			x			x
Building Automation					x	
Business, Finance & Marketing/Business Technology	x		x		x	
Carpentry and Construction Management	x	x	x	x	x	x
Chemical Lab Technology			x			
Collision Repair/Auto Body Technologies	x	x	x	x		
Computer Science/Engineering/Programing		x	x			x
Computer/Cisco Networking	x			x	x	
Cosmetology	x	x	x	x	x	
Criminal Justice/Law Enforcement	x	x				
Culinary Arts		x	x	x	x	x
Dental Services	x	x	x	x	x	
Digital Publishing and Design	x		x			
Early Care and Education	x	x		x		x
Electrical and Green Energy	x	x	x	x		x
Electronics	x	x				



Emergency Medical Services (EMS/EMT)						X
Engine Technology					X	
Geographic Information Systems						
Health Information Technology				X		X
Health Professions/Nursing	X		X	X	X	X
Hospitality and Tourism Management						
HVAC-R Engineering	X		X			X
Industrial Mechanics/Millwright Technologies				X		
Landscape and Environmental Sciences	X	X				
Legal Support Services	X				X	
Masonry		X	X	X		
Media Broadcasting	X	X				
Medical Assisting		X	X		X	X
Patient Care Services		X				
Physical Therapy/Athletic Healthcare	X	X		X		X
Plumbing			X	X		X
Pre-Engineering		X		X		
Production & Imaging Technology			X			
Sheet Metal Fabrication			X			
Surgical Technology			X			
Teacher Academy for K-12 Education		X	X		X	
Technical Drafting & Design			X	X		X
Welding and Fabrication	X	X	X			

Table Key

All counties except Sussex Tech have this program

All counties offer this program

Note: Some programs have different names in different districts or were combined due to similarity



## **Institute for Public Administration**

Biden School of Public Policy & Administration  
University of Delaware

180 Graham Hall University of Delaware Newark, DE 19716-7380  
phone: 302-831-8971 email: [ipa@udel.edu](mailto:ipa@udel.edu) fax: 302-831-3488

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