

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

Executive Summary

September 2022

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In coordination with

Sussex County Vocational Technical School District



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

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Executive Summary

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
Automotive Technologies	<ul style="list-style-type: none"> Automotive Service Technicians <p><i>*See Table 11 for all occupations analyzed</i></p>	<p><u>Mostly Positive</u></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"> Between 2018 and 2022, enrollment mostly remained consistent with a slight decline in 2021. Sussex Tech prepares students for 11 of the 16 certifications that DDOE recognizes.
Business, Finance, and Marketing Technologies	<ul style="list-style-type: none"> Bookkeeping/Accounting Clerks Office Clerks Information Technology Project Managers <p><i>*See Table 13 for all occupations analyzed</i></p>	<p><u>Mixed</u></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"> Between 2018 and 2022, enrollment has remained consistent, remaining between 43 and 46 students. Sussex Tech prepares students for one of the eight certifications that DDOE recognizes.
Carpentry and Construction Management	<ul style="list-style-type: none"> Carpenters Construction Managers <p><i>*See Table 15 for all occupations analyzed</i></p>	<p><u>Very Positive</u></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"> Between 2018 and 2022, enrollment mostly declined with a slight uptick in 2022. Sussex Tech prepares students for three of the five certifications that DDOE recognizes.
Cisco Networking	<ul style="list-style-type: none"> Computer Network Support Specialist <p><i>*See Table 17 for all occupations analyzed</i></p>	<p><u>Very Positive</u></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"> Between 2018 and 2022, enrollment has mostly declined, with an uptick in 2019. Sussex Tech prepares students for two of the nine certifications that DDOE recognizes.
Collision Repair Technologies	<ul style="list-style-type: none"> Auto Body and Related Repairers <p><i>*See Table 19 for all occupations analyzed</i></p>	<p><u>Mixed</u></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"> Between 2018 and 2022, enrollment has steadily increased. Sussex Tech prepares students for four of the seven certifications that DDOE recognizes.

CTE Program	ONET Core Occupation(s)	Occupation Outlook	Enrollment & Credentials
Cosmetology	<ul style="list-style-type: none"> Hairdressers Cosmetologists <p><i>*See Table 21 for all occupations analyzed</i></p>	<p><u>Mostly Positive</u></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"> Between 2018 and 2022, enrollment has steadily increased. For Cosmetology, there is only one certification recognized by DDOE and Sussex Tech prepares students for that certification.
Dental Services and Technologies	<ul style="list-style-type: none"> Dental Assistants <p><i>*See Table 23 for all occupations analyzed</i></p>	<p><u>Very Positive</u></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"> 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. For Dental Technologies, there are only two certifications recognized by DDOE and Sussex Tech prepares students for both certifications.
Digital Publishing and Design Technologies	<ul style="list-style-type: none"> Graphic Designers <p><i>*See Table 25 for all occupations analyzed</i></p>	<p><u>Mostly Positive</u></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"> Between 2018 and 2022 enrollment has varied, with declines in 2019 and 2021. Sussex Tech offers four of the 14 certifications recognized by DDOE and none of the same certifications as POLYTECH.
Early Care and Education	<ul style="list-style-type: none"> Childcare Workers <p><i>*See Table 27 for all occupations analyzed</i></p>	<p><u>Very Positive</u></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"> Between 2018 and 2022, enrollment increased steadily until 2021 and declined slightly in 2022. Sussex Tech prepares students for one of the five certifications that DDOE recognizes.
Electrical and Green Energy Technologies	<ul style="list-style-type: none"> Electricians <p><i>*See Table 29 for all occupations analyzed</i></p>	<p><u>Mostly Positive</u></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"> Between 2018 and 2022, enrollment increased steadily until 2021 and declined slightly in 2022. Sussex Tech prepares students for all five of the certifications that DDOE recognizes.

CTE Program	ONET Core Occupation(s)	Occupation Outlook	Enrollment & Credentials
Electronics	<ul style="list-style-type: none"> Electronics Engineers <p><i>*See Table 31 for all occupations analyzed</i></p>	<p><u>Mixed</u></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"> Between 2018 and 2022, Electronics had the lowest total enrollment of all programs with 104 students. Between 2018 and 2022, enrollment has varied. There was a decline in 2019, increase between 2020 and 2021, and a slight decline in 2022. Sussex Tech prepares students for three of the six certifications that DDOE recognizes.
Health Professions	<ul style="list-style-type: none"> Nursing Assistants <p><i>*See Table 33 for all occupations analyzed</i></p>	<p><u>Very Positive</u></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"> Between 2018 and 2022, the Health Professions program had the highest total enrollment of all programs with 600 students. Between 2018 and 2022, enrollment has varied. From 2018 to 2020, enrollment was consistent. Enrollment declined in 2021 and remained the same in 2022. Sussex Tech prepares students for three of the five certifications that DDOE recognizes. In the state and Kent and Sussex Counties, jobs in healthcare are very common; Beebe Healthcare is the third largest employer in Sussex County.
HVAC-R Engineering	<ul style="list-style-type: none"> Heating, Air Conditioning, and Refrigeration Mechanics <p><i>*See Table 35 for all occupations analyzed</i></p>	<p><u>Mostly Positive</u></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"> Between 2018 and 2022, enrollment increased steadily until 2021 and declined slightly in 2022. Sussex Tech prepares students for six of the eight certifications that DDOE recognizes.

CTE Program	ONET Core Occupation(s)	Occupation Outlook	Enrollment & Credentials
Landscape Management and Environmental Technologies	<ul style="list-style-type: none"> Environmental Engineering Technologists & Technicians <p><i>*See Table 37 for all occupations analyzed</i></p>	<p><u>Mixed</u></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"> Between 2018 and 2022, enrollment has mostly increased with a slight decline in 2019. Sussex Tech prepares students for one of the two certifications that DDOE recognizes and none of the same certifications as POLYTECH.
Legal Support Services and Criminal Justice Technologies	<ul style="list-style-type: none"> Paralegals/Legal Assistants Security Guards <p><i>*See Table 39 for all occupations analyzed</i></p>	<p><u>Very Positive</u></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"> Between 2018 and 2022, enrollment has varied. There was a slight uptick in 2020 and a decline from 2020 to 2022. Sussex Tech prepares students for all three certifications that DDOE recognizes.
Media Broadcasting Communications Technologies	<ul style="list-style-type: none"> Audio and Video Technicians Broadcast Announcers and Radio Disc Jockeys Film and Video Editors <p><i>*See Table 41 for all occupations analyzed</i></p>	<p><u>Mixed</u></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"> Between 2018 and 2022, enrollment mostly declined, but had an uptick in 2022. Sussex Tech prepares students for three of the five certifications that DDOE recognizes.
Physical Therapy – Athletic Health Care	<ul style="list-style-type: none"> Physical Therapist Aides Physical Therapists Athletic Trainers <p><i>*See Table 43 for all occupations analyzed</i></p>	<p><u>Very Positive</u></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"> Between 2018 and 2022, enrollment has declined. 2022 enrollment was about half the 2018 enrollment. Sussex Tech prepares students for three of the four certifications that DDOE recognizes.
Welding and Fabrication Technology	<ul style="list-style-type: none"> Welders, Solderers, and Brazers <p><i>*See Table 45 for all occupations analyzed</i></p>	<p><u>Mixed</u></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"> Sussex Tech recently added the Welding program and enrollment data was unavailable. Sussex Tech plans to prepare students for four certifications, two of which DDOE recognizes.

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
<p>Plumbing</p>	<ul style="list-style-type: none"> Plumbers, Pipefitters, & Steamfitters <p><i>*See Table 46 for all occupations analyzed</i></p>	<p><u>Very Positive</u></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"> Plumbing is not offered at Sussex Tech. DDOE recognizes one plumbing certification.
<p>Culinary Arts</p>	<ul style="list-style-type: none"> Restaurant Cooks <p><i>*See Table 48 for all occupations analyzed</i></p>	<p><u>Very Positive</u></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"> 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. 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. DDOE recognizes six certifications related to Culinary Arts.
<p>Emergency Medical Services</p>	<ul style="list-style-type: none"> Emergency Medical Technician (EMT) <p><i>*See Table 50 for all occupations analyzed</i></p>	<p><u>Very Positive</u></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"> EMT/EMS is not offered at Sussex Tech. DDOE recognizes five certifications related to EMT/EMS.

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

Next Steps for Consideration

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.**