



AGRICULTURE, FOOD & NATURAL RESOURCES

The Agriculture, Food and Natural Resources programs prepare students for careers in a highly technical and ever changing sector of the global economy. These programs provide a career pathway to a wide variety of careers in agritechology, animal science, plant science, food products & processing and environmental science.

2019-20

47,326

enrollments in High School programs



+ 30,293

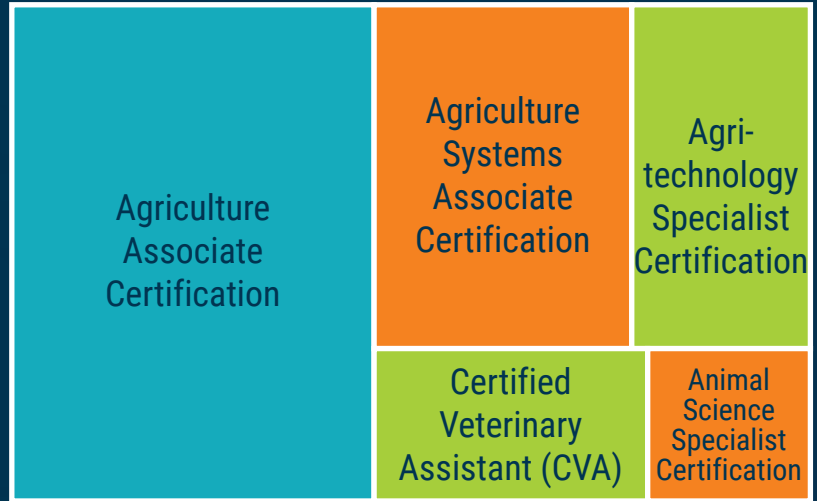
enrollments in Middle School programs



=

77,619

TOP CERTIFICATIONS EARNED BY K-12 STUDENTS



TOP HIGH SCHOOL PROGRAMS

Agritechology (14,866)

Veterinary Assisting (8,248)

Animal Science & Services (7,006)

Agricultural Communications (2,898)

Horticultural Science & Services (2,671)

ARTICULATION PATHWAY TO COLLEGE

Agritechology Specialist Certification (FLFBR001)

Articulates 2 credits

Agricultural Production Technology A.S. Degree

\$213.68 in State College Tuition Savings

POSTSECONDARY & EMPLOYMENT

462
DISTRICT POSTSECONDARY
PROGRAMS



100%
certificate

9
districts

TOP PROGRAMS

Veterinary Assisting (401)

Waste/Wastewater Treatment Technologies (41)

TOP CERTIFICATIONS EARNED BY DISTRICT POSTSECONDARY STUDENTS

1ST

Certified Veterinary
Assistant (CVA)

2ND

Certified Horticultural
Professional

3RD

Water Treatment Plant
Operator Level C

EMPLOYMENT OUTLOOK

HIGH WAGE

\$23.07

per hour Mean Wage

First Line Supervisors, Landscaping, Lawn
Service and Groundskeeping Workers

ANNUAL OPENINGS

2,758

Annual Openings

Sales Representatives, Wholesale &
Manufacturing, Tech. & Scientific Products



Notes: Based on 2019-2020 data. Postsecondary enrollment is limited to district programs and includes dual enrollment students.



ARCHITECTURE & CONSTRUCTION

The Architecture and Construction Career Cluster prepares students for careers in designing, planning, managing, building and maintaining the built environment. Examples of careers include drafters, electricians, construction managers and plumbers.

2019-20

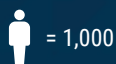
18,925

enrollments in High School programs



+ 1,844

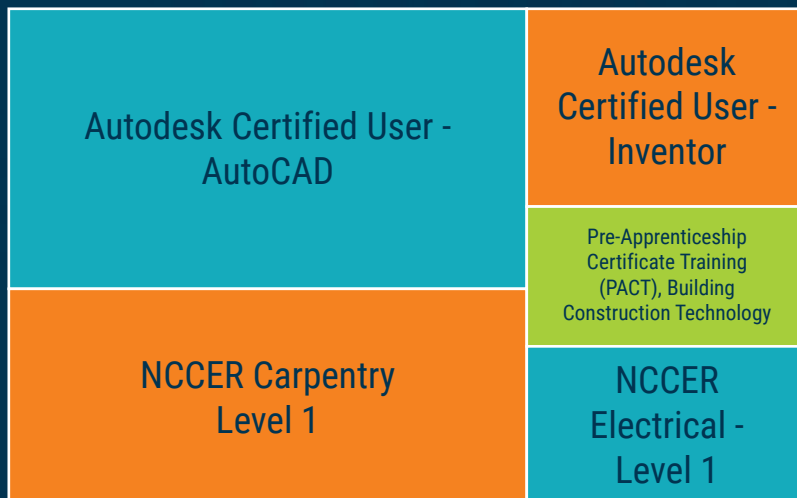
enrollments in Middle School programs



=

20,769

TOP CERTIFICATIONS EARNED BY K-12 STUDENTS



ARTICULATION PATHWAY TO COLLEGE

Autodesk Certified User - Revit Architecture (ADESK008)

Articulates 3 credits

Building Construction Technology A.S. Degree

\$320.52 in State College Tuition Savings

TOP HIGH SCHOOL PROGRAMS

Building Trades/Construction (6,230)

Building Construction Tech (4,674)

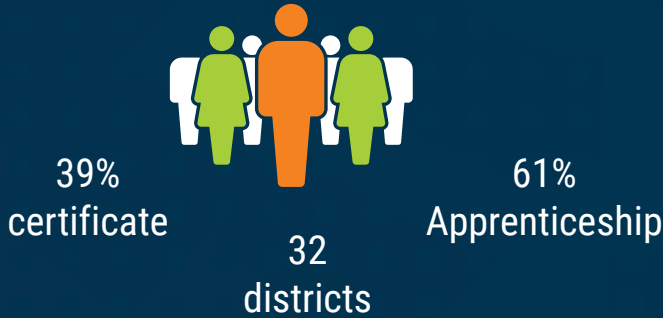
Drafting (2,490)

Carpentry (1,723)

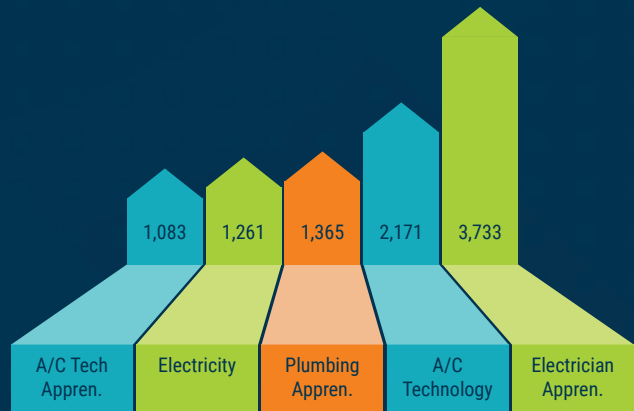
Architectural Drafting (1,194)

POSTSECONDARY & EMPLOYMENT

13,111
DISTRICT POSTSECONDARY
PROGRAMS



TOP PROGRAMS



TOP CERTIFICATIONS EARNED BY DISTRICT POSTSECONDARY STUDENTS

1ST

HVAC Excellence
 Employment
 Ready - Electrical

2ND

HVAC Excellence
 Employment Ready - A/C

3RD

HVAC Excellence
 Employment Ready -
 Heat Pump

EMPLOYMENT OUTLOOK

HIGH GROWTH

2.1%

Growth Rate

Structural Iron & Steel
 Workers

HIGH WAGE

\$21.26

per hour Mean Wage

Electricians

ANNUAL OPENINGS

7,955

Annual Openings

Carpenters



Notes: Based on 2018-2019 data. Postsecondary enrollment is limited to district programs and includes dual enrollment students.



ARTS, A/V TECHNOLOGY & COMMUNICATION

The Arts, A/V Technology and Communications Career Cluster encompasses audio/video technology and film, journalism and broadcasting, performing arts, printing technology, telecommunications, and visual arts. Students prepare for these careers by designing, producing, exhibiting, performing, writing, and publishing multimedia content including visual and performing arts and design.

2019-20

138,702

enrollments in High School programs



+ 19,417

enrollments in Middle School programs



=

158,119

TOP CERTIFICATIONS EARNED BY K-12 STUDENTS



TOP HIGH SCHOOL PROGRAMS

Digital Design (73,809)

Digital Media/Multimedia Design (14,641)

Television Production Technology (9,049)

Television Production (8,946)

Digital Video Technology (7,235)

ARTICULATION PATHWAY TO COLLEGE

Apple Certified Pro (ACP) - Final Cut Pro X (APPLE020)

Articulates 3 credits

Digital Television and Media Production

\$320.52 in State College Tuition Savings

POSTSECONDARY & EMPLOYMENT

3,120
DISTRICT
POSTSECONDARY
ENROLLMENTS

16
DISTRICTS



TOP PROGRAMS

Digital Video Technology (871)

Digital Photography Technology (736)

Digital Media/Multimedia Design (407)

3D Animation Technology (277)

Commercial Art Technology (187)

EMPLOYMENT OUTLOOK

HIGH WAGE
\$22.57

per hour Mean Wage

Graphic Designer

ANNUAL OPENINGS

1,771

Annual Openings

Graphic Designer



Notes: Based on 2019-2020 data. Postsecondary enrollment is limited to district programs and includes dual enrollment students.



BUSINESS MANAGEMENT & ADMINISTRATION

The Business Management and Administration Career Cluster programs prepare students for careers in planning, organizing, directing and evaluating business functions essential to efficient and productive business operations. Career opportunities in this cluster are available in every sector of the economy and require specific skills in organization, time management, customer service and communication.

2019-20

52,906

enrollments in High School programs



+ 95,070

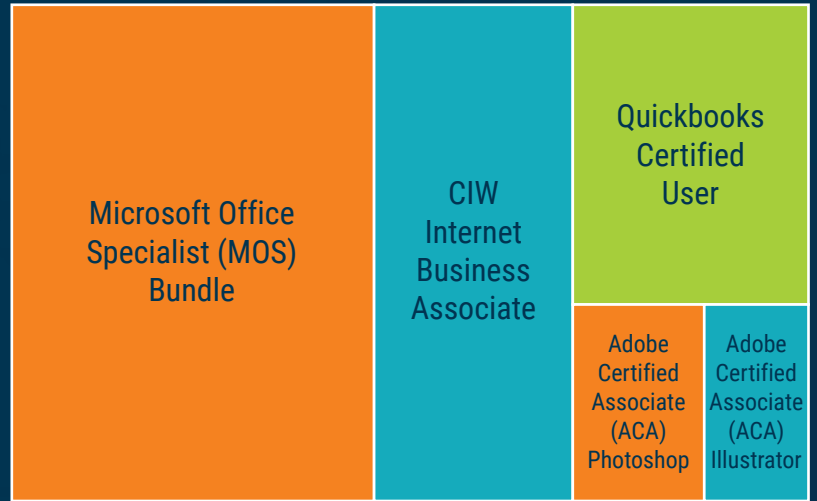
enrollments in Middle School programs



=

147,976

TOP CERTIFICATIONS EARNED BY K-12 STUDENTS



ARTICULATION PATHWAY TO COLLEGE

Professional Legal Secretary (PLS) (TAFLP002)

Articulates 9 credits

Office Administration A.S. Degree

\$961.56 in State College Tuition Savings

TOP HIGH SCHOOL PROGRAMS

Administrative Office Specialist (15,754)

Accounting Applications (6,567)

Emerging Technology in Business (5,886)

Electronic Business Enterprise (5,511)

Business Management and Analysis (5,173)

POSTSECONDARY & EMPLOYMENT

2,003
DISTRICT
POSTSECONDARY
ENROLLMENTS

20
DISTRICTS



TOP PROGRAMS

Medical Admin. Specialist (734)

Accounting Operations (531)

Admin. Office Specialist (320)

Business Management Analysis (202)

Legal Admin. Specialist (150)

EMPLOYMENT OUTLOOK

ANNUAL OPENINGS

8,647

Annual Openings

General and Operations Managers

HIGH GROWTH

2.46%

Growth Rate

Medical Secretaries



Notes: Based on 2019-2020 data. Postsecondary enrollment is limited to district programs and includes dual enrollment students.



EDUCATION & TRAINING

The Education and Training Career Cluster programs offer students educational opportunities, training services, and related learning support with an emphasis on improving public education services. The three pathways include Administration and Administrative Support; Professional Support Services and Teaching/Training.

2019-20

28,629

enrollments in High School programs



+ 1,295

enrollments in Middle School programs



= 1,000



29,924

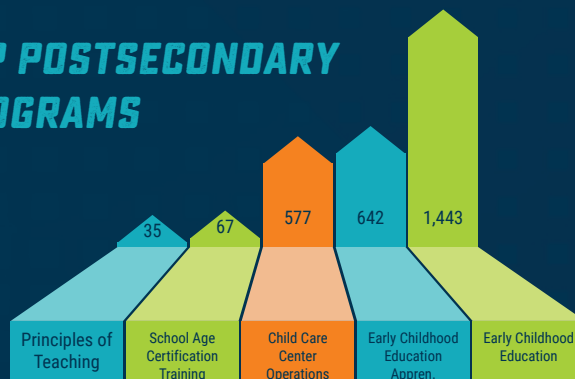
DISTRICT POSTSECONDARY PROGRAMS

2,764



15 Districts

TOP POSTSECONDARY PROGRAMS



TOP HIGH SCHOOL PROGRAMS

Early Childhood Education (18,661)

Principles of Teaching (6,124)

Child Development (3,058)

TOP CERTIFICATIONS EARNED IN K-12

Child Development Associate (CDA) (1,041)

Certified Food Protection Manager (ServSafe®) (334)

ARTICULATION PATHWAY TO COLLEGE

Pathway to College Child Development Associate (CDA) (CPREC001)

Articulates 9 credits

Early Childhood Education A.S. Degree

\$961.56 in State College Tuition Savings

*Articulation in this career cluster varies per local institution.



Notes: Based on 2019-2020 data. Postsecondary enrollment is limited to district programs and includes dual enrollment students.



ENERGY

The Energy Career Cluster programs prepare students for careers in planning, managing and providing technical support services related to generation, transmission and distribution of various types of energy. Examples of careers include technicians, lineworkers, pipelayers and welders.

2019-20

463

enrollments in High School programs



+

512

enrollments in Middle School programs



=

975



DISTRICT POSTSECONDARY PROGRAMS

410



6 Districts

TOP CERTIFICATIONS EARNED IN K-12

Electrical Line Service and Repair Appren. (318)

Solar Photovoltaic System Design Installation & Maintenance (49)

TOP HIGH SCHOOL PROGRAMS

Energy Technician (277)

Energy Generation Technician (117)

Solar Energy Technology (66)

TOP CERTIFICATIONS EARNED IN K-12

NCCER Electrical Level 1

ARTICULATION PATHWAY TO COLLEGE

Energy Technician Program

Articulates 3 credits

Electrical Distribution Technology A.A.S. Degree

\$320.52 in State College Tuition Savings

*Articulation in this career cluster varies per local institution.



Notes: Based on 2019-2020 data. Postsecondary enrollment is limited to district programs and includes dual enrollment students.



ENGINEERING & TECHNOLOGY EDUCATION

The Engineering & Technology Education Career Cluster prepares students for careers as engineers and technologists through the introduction of certain processes in mathematics, science and technology. Students learn how to apply mathematics, science and technology concepts to solve problems quantitatively in engineering projects involving design, development or production in various technologies.

2019-20

48,651

enrollments in High School programs



+ 54,137

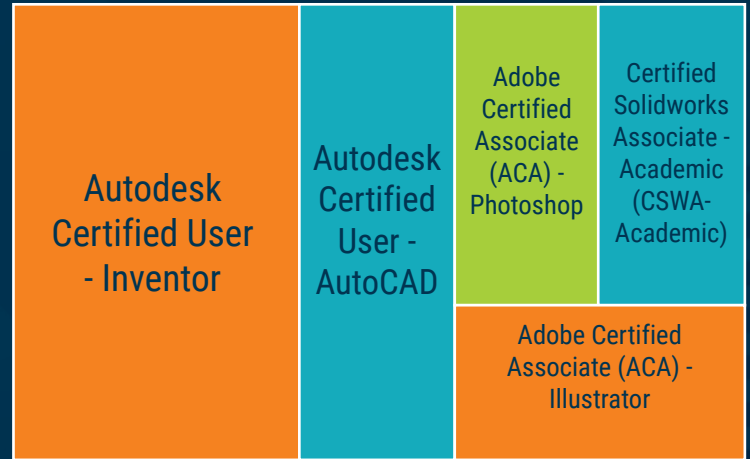
enrollments in Middle School programs



= 10,000

= 102,788

TOP CERTIFICATIONS EARNED BY K-12 STUDENTS



TOP HIGH SCHOOL PROGRAMS

Engineering Pathways (17,414)

Applied Engineering Technology (6,521)

Communications Technology (6,000)

Applied Robotics (5,193)

Technical Design (4,209)

ARTICULATION PATHWAY TO COLLEGE

Associate Level Certified Electronic Technician (ISCET001)

Articulates 6 credits

Electronics Engineering Technology A.S. Degree

\$641.04 in State College Tuition Savings



Notes: Based on 2019-2020 data. Postsecondary enrollment is limited to district programs and includes dual enrollment students.

FINANCE



The Finance Career Cluster programs prepare students for careers in financial and investment planning, banking, insurance and business financial management. Finance career opportunities are available in every sector of the economy and require organizational, time management, customer service and communication skills.

2019-20

15,866

enrollments in High School programs



+ 1,098

enrollments in Middle School programs

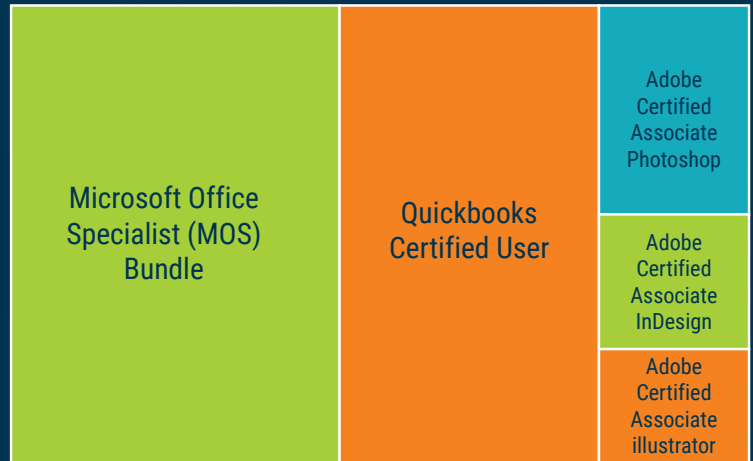


= 1,000

=

16,964

TOP CERTIFICATIONS EARNED BY K-12 STUDENTS



TOP HIGH SCHOOL PROGRAMS

Finance (9,989)

Personal & Family Finance (5,388)

*Fundamentals of Finance (483)

*Intro to Finance (457)

Global Finance (423)

ARTICULATION PATHWAY TO COLLEGE

Finance & Business Technology Program

Articulates 6 credits

Select A.S. Degrees

\$641.04 in State College Tuition Savings

*Articulation in this career cluster varies per local institution.



Notes: Based on 2019-2020 data. Postsecondary enrollment is limited to district programs and includes dual enrollment students.



HEALTH SCIENCE

The Health Science Career Cluster is divided into five pathways: Therapeutic Services, Diagnostic Services, Health Informatics, Support Services, and Biotechnology Research & Development. Hundreds of Health Science educational opportunities in a variety of professions are offered throughout the state at the secondary and postsecondary level.

2019-20

62,519

enrollments in High School programs



+ 9,557

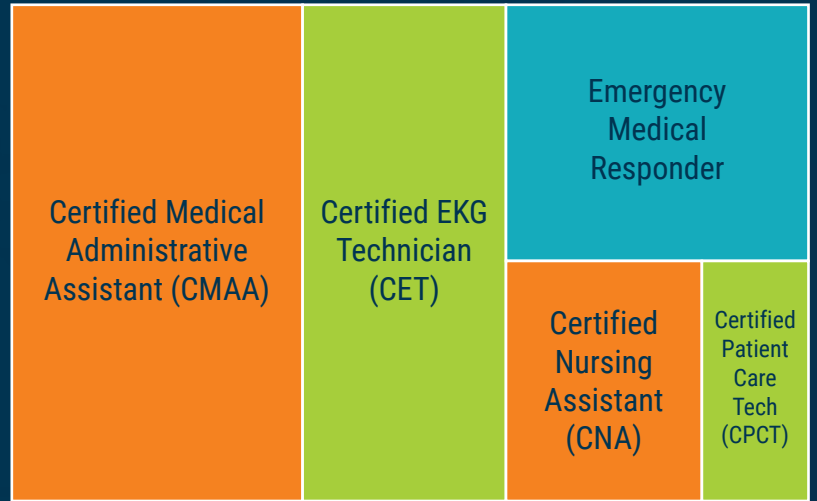
enrollments in Middle School programs



=

72,076

TOP CERTIFICATIONS EARNED BY K-12 STUDENTS



TOP HIGH SCHOOL PROGRAMS

Allied Health Assisting (18,771)

Medical Skills and Services (8,504)

Biomedical Sciences (7,536)

Nursing Assistant (Acute & Long Term Care) (6,404)

Emergency Medical Responder (5,762)

ARTICULATION PATHWAY TO COLLEGE

Licensed Practical Nurse or Licensed Practical Nurse (NCSBN002)

Articulates 10 credits

Nursing R.N. (Associate Degree)

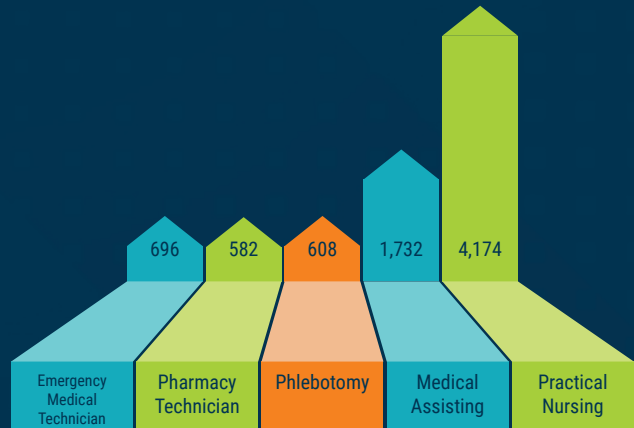
\$1,068.40 in State College Tuition Savings

POSTSECONDARY & EMPLOYMENT

12,210
DISTRICT POSTSECONDARY
PROGRAMS



TOP PROGRAMS



TOP CERTIFICATIONS EARNED BY DISTRICT POSTSECONDARY STUDENTS

1ST
National Licensed
Practical Nurse (NCLEX-PN)

2ND
Certified Nursing
Assistant (CNA)

3RD
Emergency Medical
Technician (EMT)

EMPLOYMENT OUTLOOK

HIGH GROWTH
2.2%
Growth Rate
Dental Assistants

HIGH WAGE
\$26.55
per hour Mean Wage
Radiologic Technologist

ANNUAL OPENINGS
4,488
Annual Openings
Licensed Practical Nurse (LPN)



Notes: Based on 2019-2020 data. Postsecondary enrollment is limited to district programs and includes dual enrollment students.



HOSPITALITY & TOURISM

The Hospitality & Tourism Career Cluster programs offer students educational opportunities, training services, and related learning support with an emphasis on improving education services. The pathways in this cluster include restaurant and food/beverage services; lodging; travel, tourism & recreation; and amusements & attraction.

2019-20

78,817

enrollments in High School programs



+ 30,807

enrollments in Middle School programs



=

109,624

TOP CERTIFICATIONS EARNED BY K-12 STUDENTS



TOP HIGH SCHOOL PROGRAMS

Culinary Art (54,626)

Principles of Food (7,989)

Nutrition and Wellness (6,992)

Hospitality and Tourism Management (4,662)

Hospitality and Tourism (2,242)

ARTICULATION PATHWAY TO COLLEGE

Certified Culinarian (ACFED002)

Articulates 3 credits

Culinary Management A.S. Degree

\$320.52 in State College Tuition Savings

POSTSECONDARY & EMPLOYMENT

2,877
DISTRICT
POSTSECONDARY
ENROLLMENTS

23
DISTRICTS



TOP PROGRAMS

Commercial Foods & Culinary Arts (1,627)

Fundamental Foodservice Skills (568)

Environmental Services (397)

Baking & Pastry Arts (129)

Lodging Operations (61)

EMPLOYMENT OUTLOOK

HIGH GROWTH

1.65%

Growth Rate

First Line Supervisors of
Housekeeping and Janitorial
Workers

HIGH WAGE

\$31.92

per hour Mean Wage

Food Service Managers

ANNUAL OPENINGS

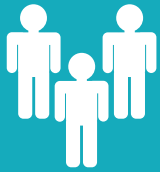
1,862

Annual Openings

Food Service Managers



Notes: Based on 2019-2020 data. Postsecondary enrollment is limited to district programs and includes dual enrollment students.



HUMAN SERVICES

The Human Services career cluster is divided into three pathways: counseling and mental health services; family and community services; and consumer services. Hundreds of human services programs prepare high school and postsecondary students for rewarding careers in this diverse cluster.

2019-20

16,920

enrollments in High School programs



+ 12,235

enrollments in Middle School programs



= 1,000

=

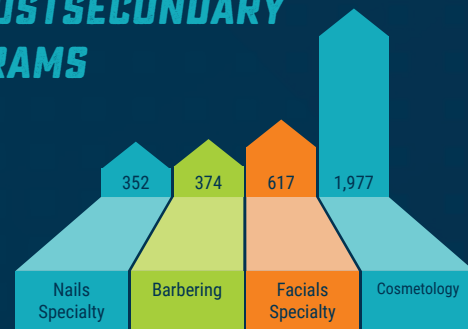
29,155

DISTRICT POSTSECONDARY ENROLLMENTS

3,341



TOP POSTSECONDARY PROGRAMS



TOP HIGH SCHOOL PROGRAMS

Cosmetology (3,293)

Barbering (863)

Nails Specialty (531)

Facials Specialty (289)

Dry Cleaning and Laundry (136)

ARTICULATION PATHWAY TO COLLEGE

Facials Specialty & Nails Specialty

225 Hours in Postsecondary Credits

Cosmetology Career Certificate

\$524.25 in State Clock Hour Tuition Savings



Notes: Based on 2019-2020 data. Postsecondary enrollment is limited to district programs and includes dual enrollment students.

INFORMATION TECHNOLOGY



Information technology (IT) is the study of design, development, implementation, support or management of computer-based information systems, particularly software applications and computer hardware. Information technology deals with the use of computers and computer software to convert, store, protect, process, transmit and securely retrieve information.

2019-20

77,639

enrollments in High School programs



+ 44,753

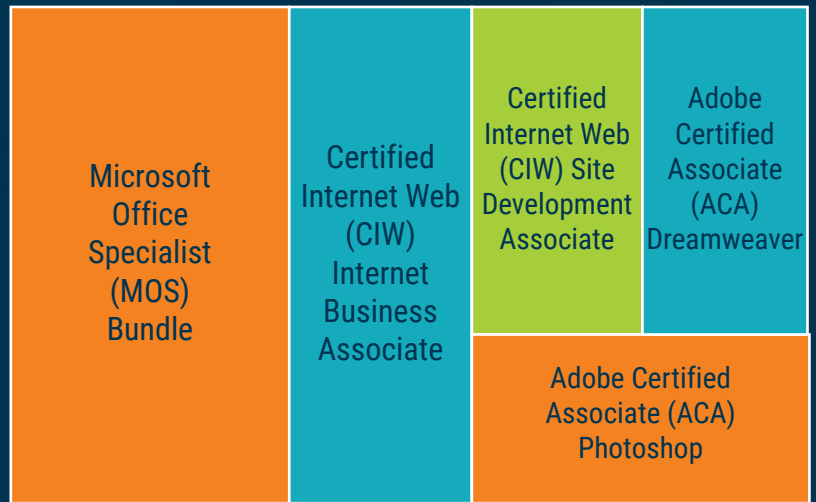
enrollments in Middle School programs



=

122,392

TOP CERTIFICATIONS EARNED BY K-12 STUDENTS



TOP HIGH SCHOOL PROGRAMS

Applied Information Technology (19,715)

Web Development (16,036)

Game/Simulation/Animation Visual Design (8,145)

Digital Media Technology (7,877)

Computer Science Principles (3,956)

ARTICULATION PATHWAY TO COLLEGE

Certified Internet Web (CIW) Advanced HTML5 & CSS3 Specialist (PROSO027)

Articulates 3 credits

Computer Information Technology A.S. Degree

\$320.52 in State College Tuition Savings

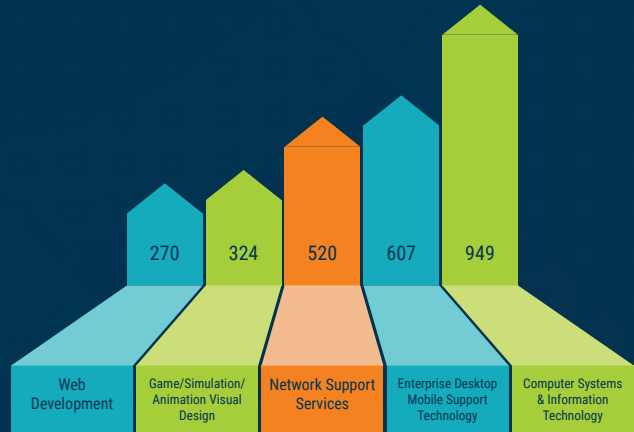
POSTSECONDARY & EMPLOYMENT

3,661
DISTRICT POSTSECONDARY
PROGRAMS



25
districts

TOP PROGRAMS



TOP CERTIFICATIONS EARNED BY DISTRICT POSTSECONDARY STUDENTS

1ST
CompTIA A+

2ND
COMPTIA Network+

3RD
Microsoft Technology Associate (MTA) - Windows OS Fundamentals

EMPLOYMENT OUTLOOK

HIGH GROWTH
3.31%
Growth Rate
Software Developers, Applications

HIGH WAGE
\$39.70
per hour Mean Wage
Computer Network Architects

ANNUAL OPENINGS
3,903
Annual Openings
Software Developers, Applications



Notes: Based on 2019-2020 data. Postsecondary enrollment is limited to district programs and includes dual enrollment students.



LAW, PUBLIC SAFETY, & SECURITY

The Law, Public Safety and Security Career Cluster is divided into five pathways: corrections; emergency and fire management; law enforcement; legal; and security protection. Students in these programs are preparing to plan, manage and provide legal, public safety, protective services and homeland security, including professional and technical support services.

2019-20

18,758

enrollments in High School programs



+ 1,991

enrollments in Middle School programs



= 10,000

=

20,749

TOP CERTIFICATIONS EARNED BY K-12 STUDENTS



TOP HIGH SCHOOL PROGRAMS

Criminal Justice Operations (16,880)

Introduction to Fire Fighting (1,397)

Public Safety Telecommunication (232)

Private Security Officer (79)

ARTICULATION PATHWAY TO COLLEGE

Criminal Justice Operations High School Program

Articulates 3 credits

Criminal Justice Technology A.S. Degree

\$320.52 in State College Tuition Savings

*Articulation in this career cluster varies per local institution.

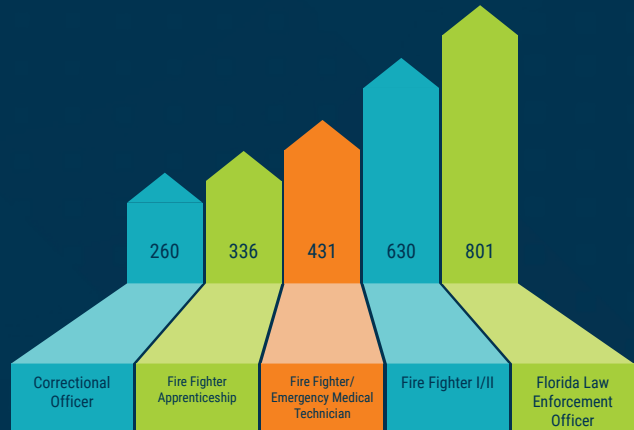
POSTSECONDARY & EMPLOYMENT

2,651
DISTRICT POSTSECONDARY
PROGRAMS



86% Certificate
 18 Districts
 14% Apprenticeship

TOP PROGRAMS



TOP CERTIFICATIONS EARNED BY DISTRICT POSTSECONDARY STUDENTS

1ST
 Law Enforcement Officer

2ND
 Fire Fighter II

3RD
 Correctional Officer

EMPLOYMENT OUTLOOK

HIGH GROWTH
1.35%
 Growth Rate

Police, Fire Fighter and Ambulance Dispatchers

HIGH WAGE
\$25.08
 per hour Mean Wage

Fire Fighters

ANNUAL OPENINGS
3,276
 Annual Openings

Police and Sheriff's Patrol Officers



Notes: Based on 2019-2020 data. Postsecondary enrollment is limited to district programs and includes dual enrollment students.



MANUFACTURING

The Manufacturing Career Cluster incorporates six pathways: production; manufacturing production process development; maintenance, installation & repair; quality assurance; logistics & inventory control, and health, safety & environmental assurance. Students prepare for careers that require planning, managing and performing the processing of materials into intermediate or final products and related professional and technical support activities.

2019-20

6,394

enrollments in High School programs



+ 1,084

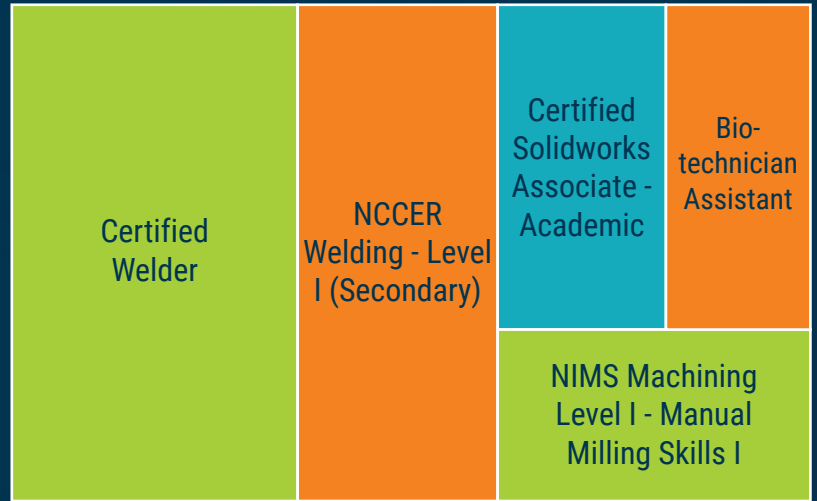
enrollments in Middle School programs



=

7,478

TOP CERTIFICATIONS EARNED BY K-12 STUDENTS



TOP HIGH SCHOOL PROGRAMS

Welding Technology Fundamentals (2,013)

Industry Biotechnology (1,619)

Advanced Manufacturing Technology (1,485)

Machining Technology (356)

Applied Welding Technology (266)

ARTICULATION PATHWAY TO COLLEGE

MSSC Certified Production Technician (CPT) (MSSCN001)

Articulates 9 credits

Manufacturing Technology A.S. Degree

\$961.56 in State College Tuition Savings

POSTSECONDARY & EMPLOYMENT

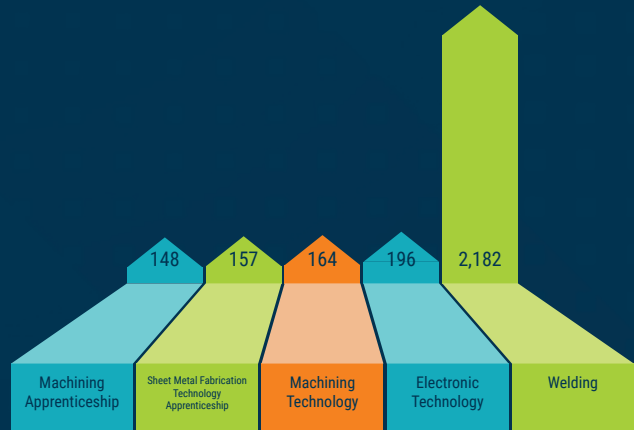
3,258
DISTRICT POSTSECONDARY
PROGRAMS



82%
certificate

18%
Apprenticeship

TOP PROGRAMS



TOP CERTIFICATIONS EARNED BY DISTRICT POSTSECONDARY STUDENTS

1ST
AWS Certified
Welder-SMAW Plate

2ND
AWS Certified
Welder-FCAW Plate

3RD
Associate Certified
Electronics Technician (CETa)

EMPLOYMENT OUTLOOK

HIGH GROWTH
1.41%
Growth Rate

Welders, Cutters,
Solderers & Brazers

HIGH WAGE
\$23.30
per hour Mean Wage

Industrial Machinery
Mechanics

ANNUAL OPENINGS
1,812
Annual Openings

Welders, Cutters,
Solders & Brazers



Notes: Based on 2019-2020 data. Postsecondary enrollment is limited to district programs and includes dual enrollment students.



MARKETING, SALES & SERVICE

The Marketing, Sales and Service Career Cluster consists of five pathways: marketing management; professional sales; merchandising; marketing communications and marketing research. Students in high school and postsecondary programs are preparing for careers in planning, managing and performing marketing activities to reach organizational objectives. Some examples of careers include customer service representatives, store managers and public relations managers.

2019-20

25,009

enrollments in High School programs



+ 1,624

enrollments in Middle School programs



= 1,000

=

26,633

TOP CERTIFICATIONS EARNED BY K-12 STUDENTS



TOP HIGH SCHOOL PROGRAMS

Marketing, Management & Entrepreneurial Principles (6,118)

Customer Service Representative (5,603)

Entrepreneurship (5,209)

Sports, Recreation & Entertainment Marketing (4,180)

Fashion Marketing (988)

ARTICULATION PATHWAY TO COLLEGE

Entrepreneurship Program

Articulates 3 credits

Marketing Management A.S. Degree

\$320.52 in State College Tuition Savings

*Articulation in this career cluster varies per local institution.



Notes: Based on 2019-2020 data. Postsecondary enrollment is limited to district programs and includes dual enrollment students.



TRANSPORTATION, DISTRIBUTION & LOGISTICS

The Marketing, Sales and Service Career Cluster consists of five pathways: marketing management; professional sales; merchandising; marketing communications and marketing research. Students in high school and postsecondary programs are preparing for careers in planning, managing and performing marketing activities to reach organizational objectives. Some examples of careers include customer service representatives, store managers and public relations managers.

2019-20

13,243

enrollments in High School programs



+

51

enrollments in Middle School programs



=

13,294

 = 10,000

TOP CERTIFICATIONS EARNED BY K-12 STUDENTS



ARTICULATION PATHWAY TO COLLEGE

TOP HIGH SCHOOL PROGRAMS

Automotive Maintenance & Light Repair (7,717)

Global Logistics & Supply Chain Technology (1,777)

Automotive Collision Technology (606)

Outboard Marine Service Technology (564)

Automotive Collision Repair & Refinishing (501)

ASE Auto Maintenance and Light Repair (G1) (NIASE076)

Articulates 3 credits

Automotive Service Technology A.S. Degree

\$320.52 in State College Tuition Savings

POSTSECONDARY & EMPLOYMENT

7,549
DISTRICT POSTSECONDARY
PROGRAMS



4% Certificate
 32 Districts
 96% Apprenticeship

TOP PROGRAMS



TOP CERTIFICATIONS EARNED BY DISTRICT POSTSECONDARY STUDENTS

1ST
 FAA Aviation Maintenance Technician - General

2ND
 ASE - Electrical/Electronic Systems (A6)

3RD
 ASE - Brakes (A5)

EMPLOYMENT OUTLOOK

HIGH GROWTH
1.56%
 Growth Rate

Operating Engineers/Construction Equipment Operators

HIGH WAGE
\$26.95
 per hour Mean Wage

Aircraft Mechanics & Service Technicians

ANNUAL OPENINGS
2,454
 Annual Openings

Operating Engineers/Construction Equipment Operators



Notes: Based on 2019-2020 data. Postsecondary enrollment is limited to district programs and includes dual enrollment students.