

Using Data to Develop IET Programs

Webinar



Activity Book

Institute for the Professional Development of Adult Educators

WEBINAR

Using Data to Develop IET Programs

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Agenda

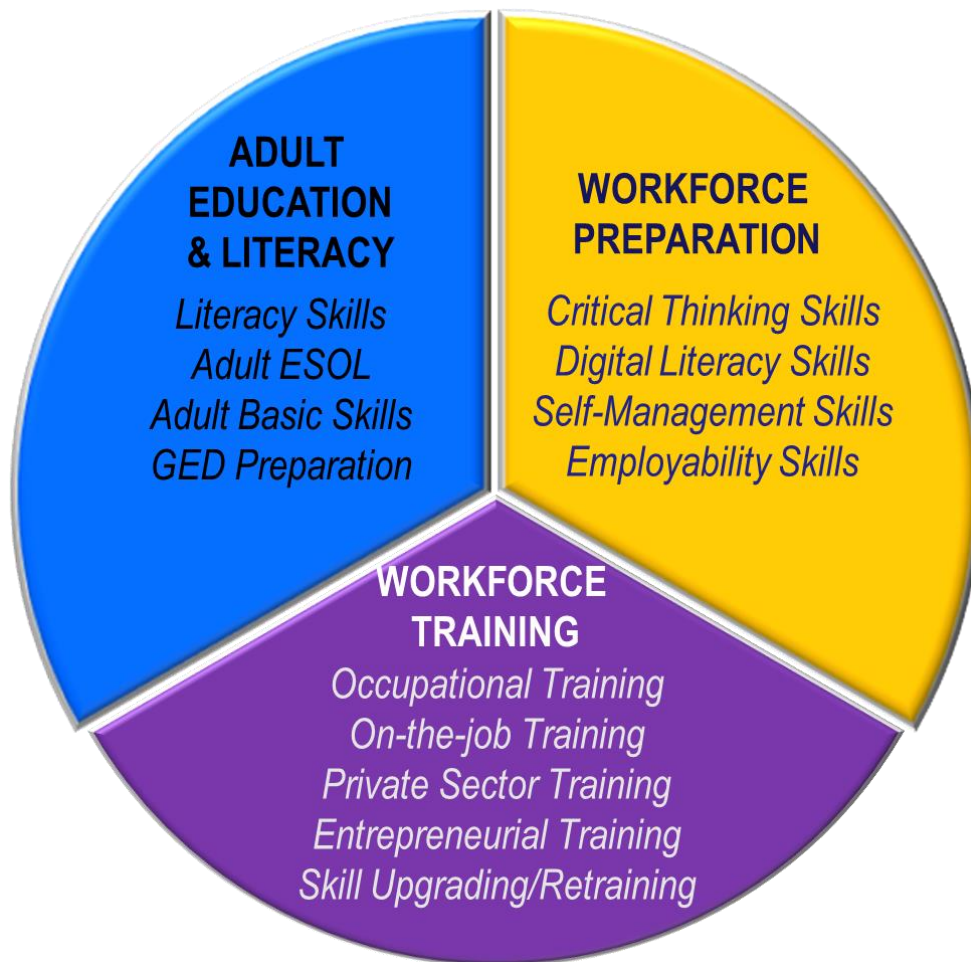
- I. Review of IET
- II. Florida's IET Guide
- III. Using Data to Identify Area of Focus
- IV. Augmenting Needs with Resources
- V. Examining the Targeted Course Template
- VI. Q & A
- VII. Evaluation

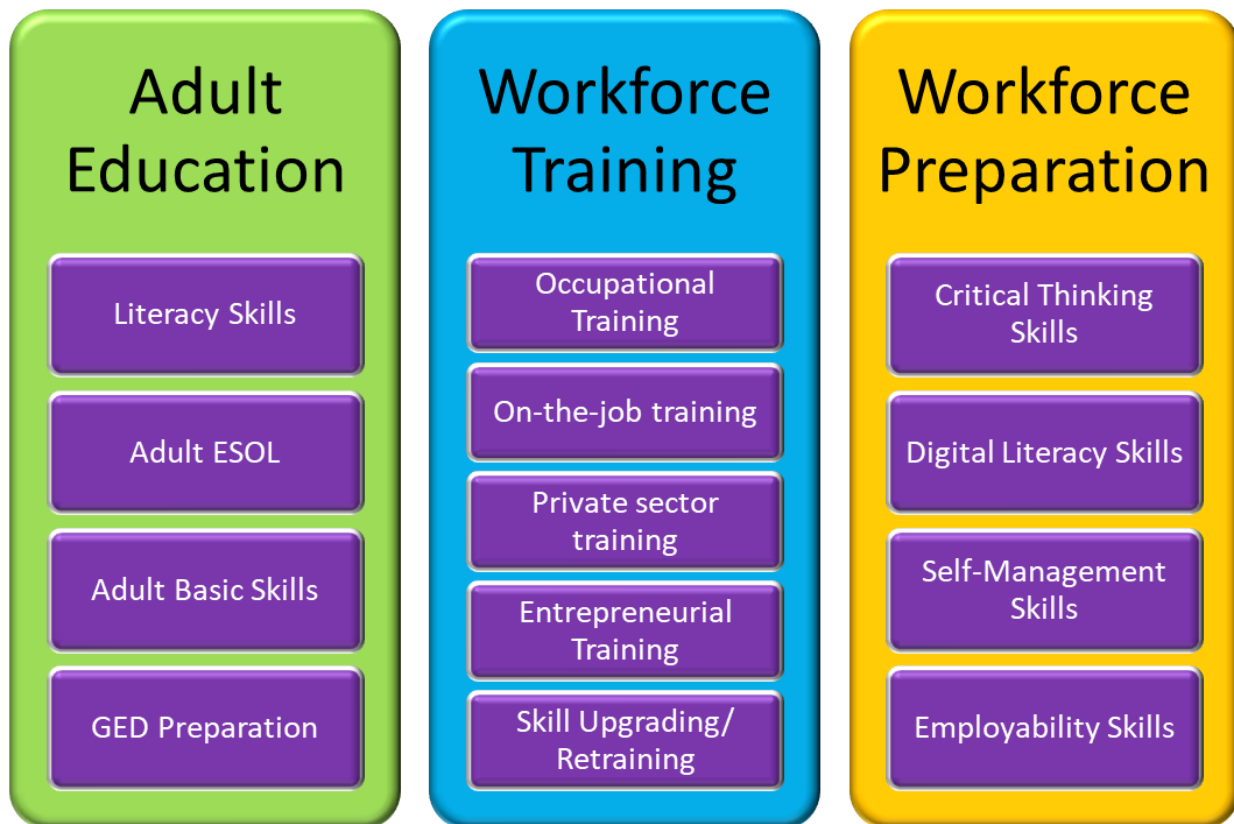
Guiding Questions

Slide(s)	Guiding Questions	My Thoughts
5	What is IET?	
6	What are the 3 components of IET?	
8	Where can you find detailed information on how to develop IET Programs?	
11	How many major career clusters are there?	
25-26	Name some workplace skills that is in-demand now and in the future.	
29-36	Where is the best place to determine student's goals and interests?	
37-40	Name the 3 main barriers to adult education participation.	

What is IET?

Integrated Education and Training is defined as a service approach that combines adult education (and literacy activities), workforce preparation activities and workforce training. Each instruction is applied with sufficient intensity and quality, based on the most rigorous research available, especially with respect to improving reading, writing, mathematics and English proficiency of eligible individuals, occurs simultaneously and uses occupationally relevant instructional materials. The integrated education and training program is organized to function cooperatively with a single set of learning outcomes.





IET Development Guiding Questions

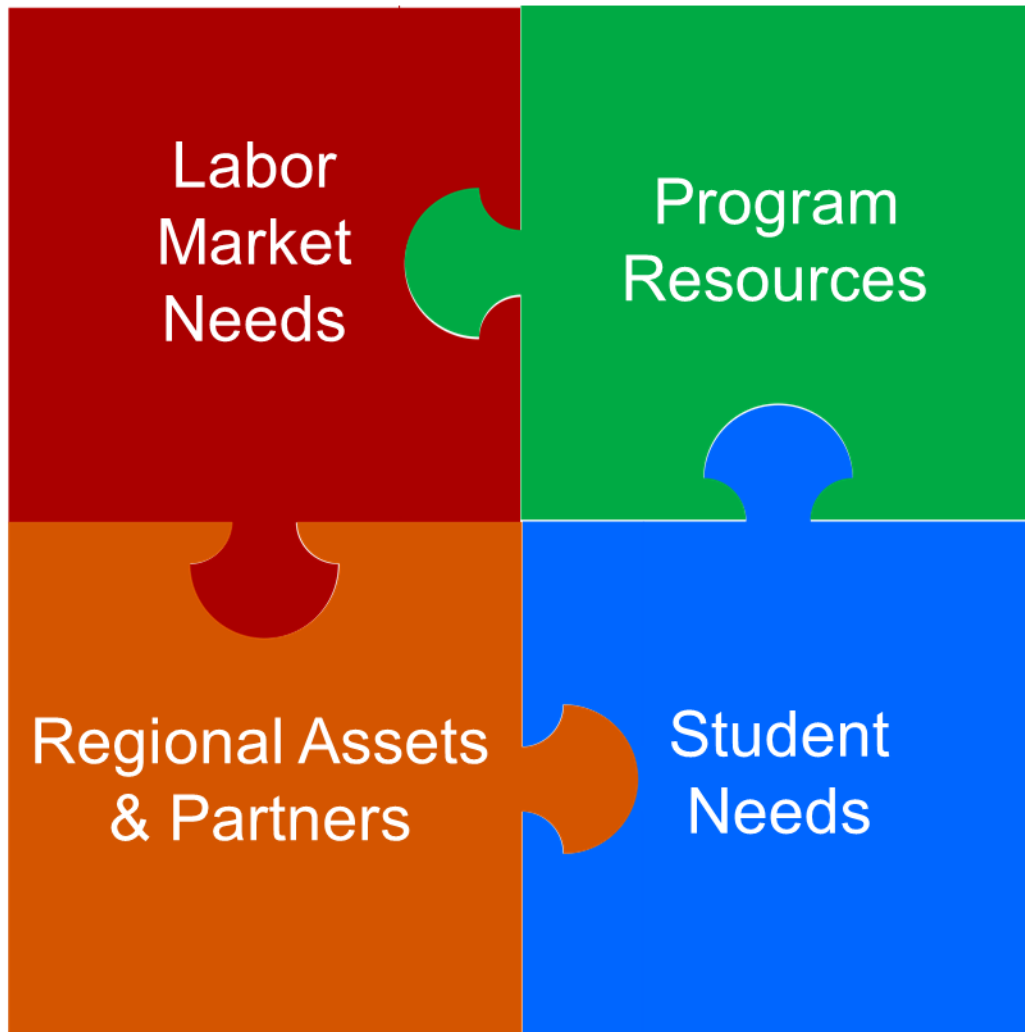
- What occupational skills course(s) are being targeted for the IET?
- What jobs are associated with the training?
- Who are the potential students for this IET?
- What certifications are associated with the training? Are they employer recognized?
- Are there basic skills thresholds or language requirements for the course?
- Are competencies required to successfully complete the course (e.g. an exit grade level, a test to pass, ability to read a blueprint, knowledge of fractions, etc.)?
- Is there a third-party exam or licensure required to earn the credential?
- What funding sources can be used for the IET?

- What planning time is allotted for collaborating instructors?
- How will participants be recruited or prepared for the IET program?
- Can the target population successfully complete the course with basic skills support?
- Is prior preparation or specific support services needed?

Major Career Clusters

1. Agriculture, Food & Natural Resources
2. Architecture & Construction
3. Arts, A/V Technology & Communication
4. Business, Management & Administration
5. Education & Training
6. Energy
7. Engineering & Technology Education
8. Finance
9. Government & Public Administration
10. Health Science
11. Hospitality & Tourism
12. Human Services
13. Information Technology
14. Law, Public Safety & Security
15. Manufacturing
16. Marketing, Sales & Service
17. Transportation, Distribution & Logistics

Aligning Resources to Needs



Sample LWDB WIOA Plan: Florida Crown (Columbia, Dixie, Gilchrist, & Union Counties)

ANALYSIS OF NEED AND AVAILABLE RESOURCES

(1) Please provide an analysis (or existing analysis pursuant to WIOA section 108(c)) of the regional economic conditions, which must include:

According to the Local Area Unemployment Statistics found on the DEO website, local area unemployment dropped in the region represented by CareerSource Florida Crown:

County	November 2018	November 2019
Columbia County	3.4%	2.7%
Dixie County	3.8%	3.3%
Gilchrist County	3.5%	3.0%
Union County	3.1%	2.7%
Overall for the Region 07	3.4%	2.8%

Specific to Region 07 growth in the following industries contributed to the decline in unemployment: Hospitality, Food Services, and Health Care. Corrections and call centers remain a viable industry in this Region as well. on-site, Union Correctional uses an office on-site in order to interview potential candidates for Correctional Officers while other local businesses, Dollar General, L & M Endeavors, and Sitel, have partnered with CSFC to conduct job fairs in order to find viable candidates.

The Region continues to be hampered by the lack of any public transportation system and poor infrastructure which still results in a higher per capita cost to train workers to a self-sufficiency wage standard. The lack of established training

program/providers within the Region, the need to provide economic assistance in the form of incentives/supportive services, and the necessity to transport participants to educational and training sites causes the high costs for training when compared to urbanized regions. However, the capacity building efforts of CSFC over the past four years have enabled this rural region to begin to break out of the cycle of poverty in which they have been engulfed.

A. Information on existing and emerging in-demand industry sectors and occupations; and

Specific to Region 7, the following sectors show the most continuous improvement:

1. Transportation and Warehousing (NAICS: 48, 49)
2. Healthcare and Social Assistance (NAICS: 62)
3. Information (NAICS: 51)
4. Accommodation and Food Services (NAICS: 72)
5. Public Administration (NAICS: 92)

According to the DEO website regarding statistical data, the following are the Fastest Growing Industries in our region (ranked from 1-20)

- 1 Fabricated Metal Product Manufacturing
- 2 Crop Production
- 3 Sporting Goods, Hobby, Book, and Music Stores
- 4 Educational Services
- 5 Machinery Manufacturing
- 6 Food Manufacturing
- 7 Ambulatory Health Care Services
- 8 Specialty Trade Contractors
- 9 Building Material and Garden Equipment and Supplies Dealers
- 10 Truck Transportation
- 11 Merchant Wholesalers, Nondurable Goods
- 12 Food Services and Drinking Places
- 13 Warehousing and Storage
- 14 Professional, Scientific, and Technical Services
- 15 Motor Vehicle and Parts Dealers
- 16 Food and Beverage Stores
- 17 Hospitals
- 18 Religious, Grantmaking, Civic, Professional, and Similar Organizations
- 19 Animal Production
- 20 Social Assistance

B. The employment needs of employers in those industry sectors and occupations (WIOA §108(b)(1)(A)).

According to the DEO website regarding statistical data, the following are the Fastest Growing Occupations in our region (ranked from 1-20):

- 1 Nurse Practitioners
- 2 Mechanical Drafters
- 3 Welders, Cutters, Solderers, and Brazers
- 4 Physician Assistants
- 5 Agricultural Equipment Operators
- 6 Respiratory Therapists
- 7 Pesticide Handlers, Sprayers, and Applicators, Vegetation
- 8 Mental Health Counselors
- 9 Meat, Poultry, and Fish Cutters and Trimmers
- 10 Medical Assistants
- 11 Merchandise Displayers and Window Trimmers
- 12 Farm Equipment Mechanics and Service Technicians
- 13 Financial Managers
- 14 Painters, Construction and Maintenance
- 15 Physical Therapist Assistants
- 16 Surgical Technologists
- 17 Butchers and Meat Cutters
- 18 Medical Records and Health Information Technicians
- 19 Construction and Building Inspectors
- 20 Cost Estimators

(2) Please provide an analysis of the knowledge and skills needed to meet the employment needs of the employers in the local area, including employment needs in in-demand industry sectors and occupations (WIOA §108(b)(1)(B)).

In reviewing the occupational needs of this region and with the top jobs being in healthcare, mechanics, welders, cutters, etc. Participants will be required to have some sort of post-secondary credential in order to qualify to meet those demands. Licenses and certificates in the nursing and trade fields meet these needs for Region 7.

(3) Please provide an analysis of the workforce in the local area, including current labor force employment (and unemployment) data, information on labor market trends, and the educational and skill levels of the workforce in the local area, including individuals with barriers to employment (WIOA §108(b)(1)(C)).

The local workforce has seen a shift from agricultural to healthcare, mechanical and more warehouse type of employment. These jobs will require more than just a high school diploma and in some cases extensive post-secondary degrees. Unemployment in this area has decreased due to a workforce that has been able to gain the necessary credentials to meet employer demands. However, with the current increase in industry, there will be barriers for those applicants who have transportation issues, and educational

barriers. For those already in a position, they may be able to upgrade into a better wage category, but their position will need to be filled. This poses a challenge that CSFC is more than ready to meet and exceed.

- (4) Please provide an analysis of the workforce development activities (including education and training) in the local area, including an analysis of the strengths and weaknesses of such services and the capacity to provide such services, to address the identified education and skill needs of the workforce and employment needs of employers in the local area (WIOA §108(b)(1)(D) and WIOA §108(b)(7)).

Currently there are no active trade schools in Columbia County. However, partnerships with Florida Gateway College, North Florida Technical Center, and River Oak Technical College can help to level this deficiency. CSFC participants will have the option to attend one of these facilities in order to meet the growing demands. Of course, the barrier once again will be transportation for those who do not have a sufficient mode of travel. This weakness is not just of the participant, but for this entire Region. Transportation remains as a major deficit in this area.

- (5) Please provide a description and assessment of the type and availability of adult and dislocated worker employment and training activities in the local area (WIOA §108(b)(7)).

The Region utilizes Customized Training, including the Employed Worker Program (EWT) and OJT Program to provide skills upgrade training to workers who need training to obtain or retain self-sufficiency. 5% of our annual Dislocated Worker budget is set aside for EWT/OJT. Additionally, throughout the year, we compete for grants and utilize EWT/OJT as the primary vehicle for fulfilling the terms of the grants that we receive. Training is performed under contract in targeted occupations and enables these workers to retain their positions and/or upgrade their skills for promotion. On the Job Training Policy, OPS-009-02 is attached.

When a customer is unable to obtain employment, the Career Manager will assign CWEP (Community Work Experience Program) hours to assist the customer in becoming more marketable. The Career Manager will discuss with the customer his or her desired goals and will try to match them to a CWEP position which relates to those goals. The customer will be instructed by the Career Manager on the details of the assignment and what is expected regarding their placement. They will also be instructed that a call or site visit will be made at any given time to verify the site and that the hours are being completed. A worksite agreement is given to the customer to be completed by the employer. It is the customer's responsibility to obtain an appropriate site. Once completed the participant may begin CWEP.

Through the Community Service/Work Experience (CSWE) program, Welfare Transition customers are placed in a training program at approved contracted public sector and/or not-for-profit agencies in the Columbia, Dixie, Gilchrist, and Union Counties area. Employers are not required to pay an hourly wage to the participants, but are responsible for training them in duties described in the Training Outline portion of the work agreement. Worksite Agreements are developed with each participating employer/agency in which they attest to their not-for-profit status. The Region utilizes staff personnel to make on-site visits annually to explain the Work-Site Agreement and obtain a signature on the Work-Site Agreement. The Region's Work-Site Agreement contains company name, contact person, address, telephone number, fax, job description, number of openings,

number of hours needed, number of days and verification of not-for-profit status. Included in this agreement are the services provided by the employer, manner of service provisions, special provisions, date the agreement takes effect, signatures from the employer and LWDB (Local Workforce Development Board), worksite outline, worksite guidance, and the job description. Workforce personnel visit the worksites on a regular basis to ensure compliance, safety and to review customer progress with the worksite supervisor/employer.

- (6) Please provide a description and assessment of the type and availability of youth workforce investment activities in the local area, including activities for youth who are individuals with disabilities. The description and assessment must include an identification of successful models of such youth workforce investment activities (WIOA §108(b)(9)).

Our youth programs serve in school youth ages 14 – 21 and out of school youth ages 16-24 with many workforce investment opportunities available. These include but are not limited to: paid work experience, traditional occupational skills training, on the job training, internships, and soft skills workshops. Partner agencies and schools providing youth services include:

- Partnership for Strong Families
- Department of Juvenile Justice (DJJ)
- College of Central Florida (Gilchrist County)
- Columbia County Adult Education
- Dixie County Adult Education
- Union County Adult Education
- Vocational Rehabilitation

CSFC also utilizes The Able Trust High School/High Tech grant funds in conjunction with our WIOA Youth dollars to engage in school youth with disabilities in year round after-school programs that focus on remediation, retention in school, End of Course (EOC) tests and other success measures, graduation and successful transition into the workforce or post-secondary education. Our after-school program has seven (7) locations which include:

- Bell High School
- Trenton High School
- Dixie High School
- Ft. White High School
- Columbia High School
- Union County High School
- Trinity United Methodist Church

Resources that staff use are the Guidepost for Success and Skills to Pay Bills By; which is a set of key educational and intervention strategies for youth, including those with disabilities. Additionally, One-Stop assessments, Individual Education Program (IEPs) and Career Planning tools will continue to be utilized to identify career paths, barriers to

employment, training or service needs, and employability skills. These assessments will also assist with identifying hidden disabilities and the potential need for accommodations.

The Able Trust High School/High Tech Program

The Able Trust High School/High Tech Program prepares youth with disabilities for life after high school; post-secondary education, employment and community involvement, through real-world experiences. High School/High Tech activities include career workshops, industry and campus tours, summer internships, community service projects, and leadership development.

Over the past two years approximately 240 students have been served through the program. The program represents a successful model for engaging youth into workforce development programs that emphasize job skills, education, employability skills, and social skills.

For the children of WT customers, we offer Pregnancy Prevention and Why Try. Why Try is a summer computer based social skills development program for younger youth not eligible for the Summer Work component.

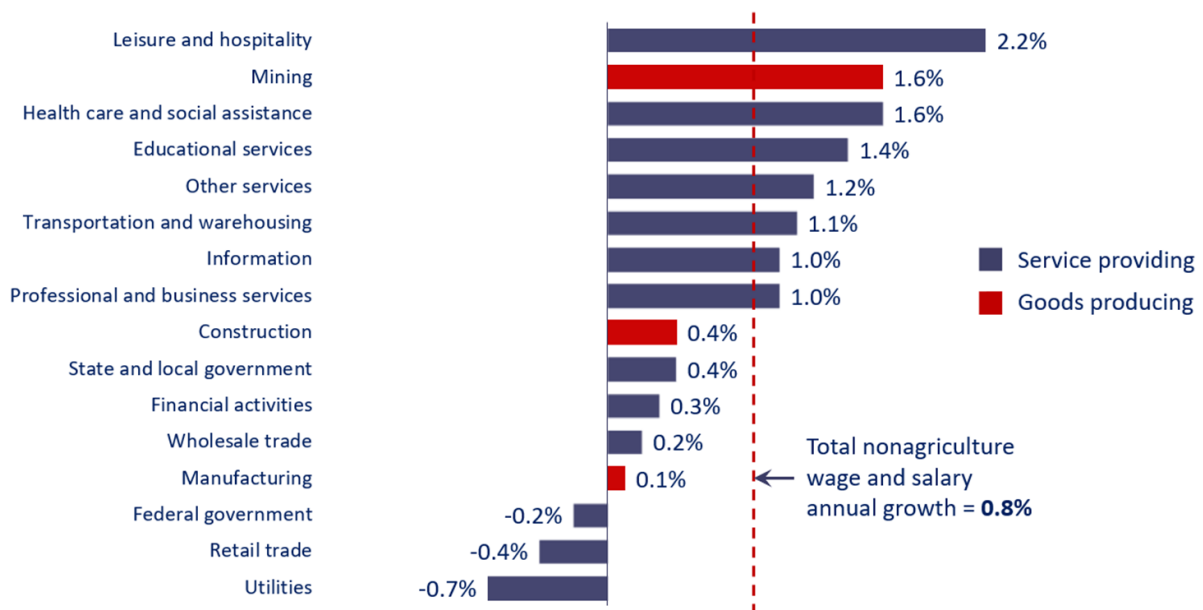
National Trends

Top 10 Fastest Growing Occupations, Excluding Pandemic Recovery*

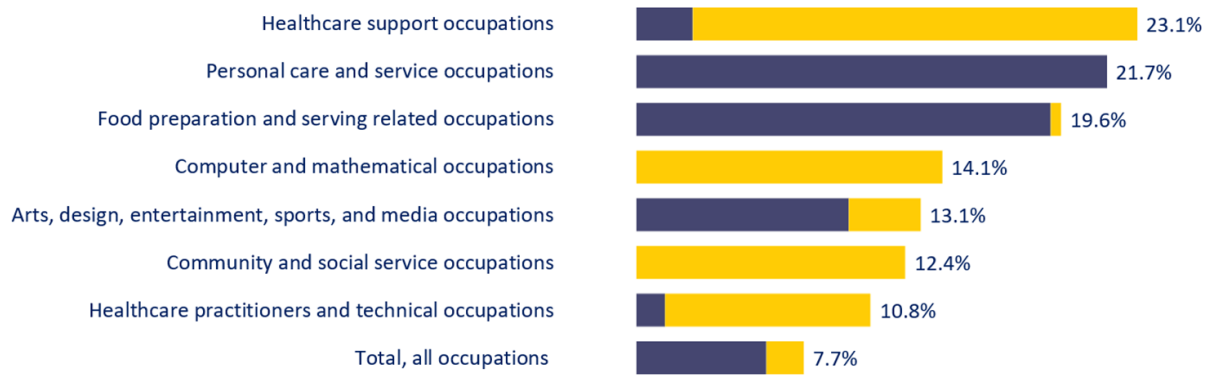
	Percent change, projected 2020-30	Employment change, projected 2020-30 (in thousands)	Median annual wages, May 2020
Wind turbine service technicians	68.2%	4.7	\$56,230
Nurse practitioners	52.2%	114.9	\$111,680
Solar photovoltaic installers	52.1%	6.1	\$46,470
Statisticians	35.4%	14.9	\$92,270
Physical therapist assistants	35.4%	33.2	\$59,770
Information security analysts	33.3%	47.1	\$103,590
Home health and personal care aides	32.6%	1,129.9	\$27,080
Medical and health services managers	32.5%	139.6	\$104,280
Data scientists and mathematical science occupations, all other	31.4%	19.8	\$98,230
Physician assistants	31.0%	40.1	\$115,390

*Data excludes occupations that had a decline in wage and salary employment greater than the decline for all occupations from 2019 to 2020 (approximately 6%).
 Note: Wage data are from the Occupational Employment and Wage Statistics program, U.S. Bureau of Labor Statistics.

Annual rate of change for wage and salary employment, projected 2020-30



Percent employment growth, projected 2020-30



■ Part of projected growth attributable to pandemic recovery

Future-oriented skills: 2022 and beyond

Technology

- Cloud computing
- Cybersecurity
- AI and ML
- Big Data analytics
- Virtual and augmented reality
- Blockchain
- Video production
- User experience

Digital literacy

- Programming literacy
- Digital literacy
- Data analysis and statistics
- Computational and algorithmic thinking
- Digital ethics foundations
- Understanding of smart systems
- Cybersecurity
- Tech enablement

Critical thinking

- Critical thinking
- Ability to understand structured problem
- Search relevant information
- Logical reasoning
- Agile thinking

Self-management

- Understanding own emotions and triggers
- Understanding own strengths
- Self-control
- Self-motivation
- Integrity

Interpersonal skills

Communication skills

- Storytelling
- Public speaking
- Synthesizing messages
- Active listening

Mental flexibility

- Adaptability
- Ability to learn
- Creativity
- Ability to adopt different perspectives
- Translating knowledge to various contexts

Building relationships

- Empathy
- Humility
- Sociability
- Inspiring trust

Teamwork effectiveness

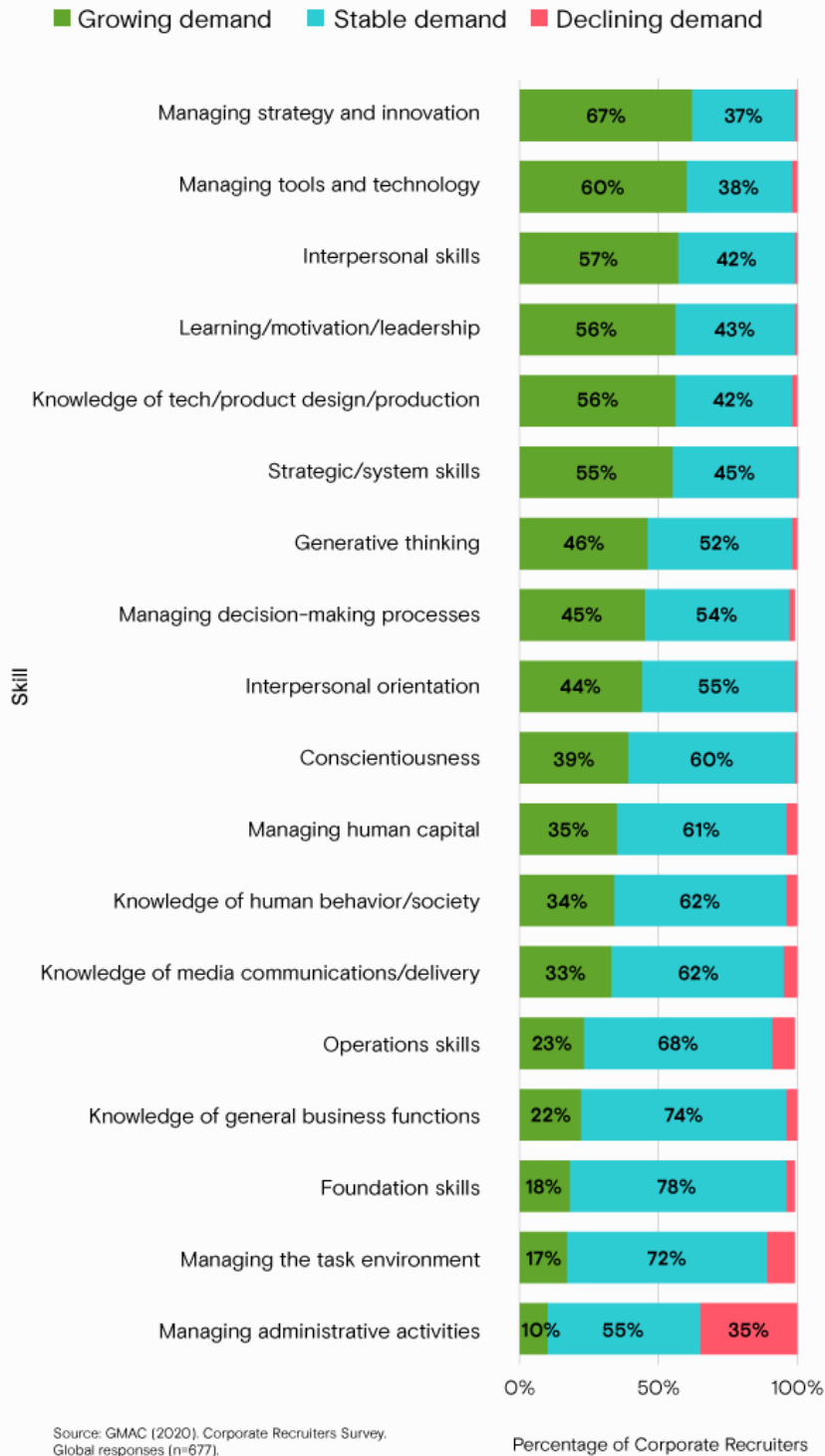
- Collaboration
- Resolving conflicts
- Motivating different personalities
- Coaching
- Empowering people
- Fostering inclusiveness

Leadership

- Role modeling
- Crafting an inspiring vision
- Organizational awareness
- Ownership and decisiveness
- Grit and persistence
- Ability to cope with uncertainty

Skill demand five years in the future

Corporate recruiters' opinions on how demand will change for specific skills five years from now

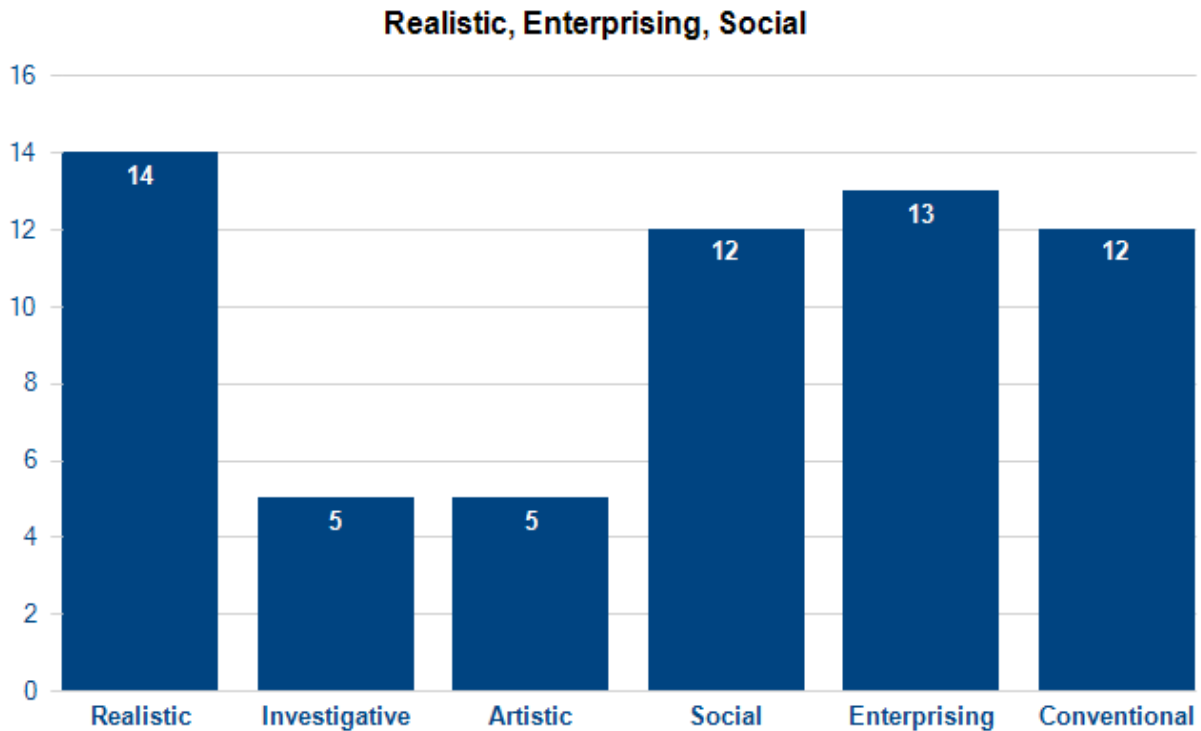


Sample RIASEC Results



CareerOneStop Interest Assessment

Based on your assessment you tested the strongest in:



More information about each interest area is listed below.

(R) Realistic

Realistic people tend to have athletic interests, prefer to work with objects, machines, tools, plants or animals, and like to be outdoors.

At work and at home, you may:

Be independent, practical, systematic, self-controlled, and straightforward

Like to work outdoors, be physically active, work on electronic equipment, train animals, and build things

Be able to play a sport, fix things, operate tools and machinery, plant a garden, camp outdoors

(I) Investigative

Investigative people like to observe, learn, investigate, analyze, and solve problems.

At work and at home, you may:

Be logical, curious, thoughtful, observant, and intellectual

Like to work independently, explore ideas, analyze data, explain scientific theories, or perform experiments

Be able to think abstractly, interpret formulas, use a computer or microscope, or solve complex problems

(A) Artistic

Artistic people like to work in unstructured situations using their imagination and creativity.

At work and at home, you may:

Be creative, imaginative, unconventional, expressive, innovative, and impulsive

Like to work on crafts, take photos, attend concerts, art exhibits, and plays, or enjoy reading fiction

Be able to sing, play an instrument, act or dance, draw or paint, create designs, or write stories, poetry and music

(S) Social

Social people like to work with people to inspire, inform, help, train or cure them.

At work and at home, you may:

Be patient, insightful, responsible, cooperative, outgoing, and skilled with words

Like to work in groups, volunteer, solve personal problems, or serve your community

Be able to teach others, mediate disputes, lead a discussion, communicate well, or plan and supervise activities

(E) Enterprising

Enterprising people like to work with people to influence, persuade and lead them, and to achieve organizational or financial goals.

At work and at home, you may:

Be assertive, energetic, persuasive, ambitious, or optimistic

Like to make decisions, take on leadership roles, meet influential people, or run campaigns

Be able to initiate projects, give speeches, persuade or inspire others, lead a large group, or develop organizational goals

(C) Conventional

Conventional people like to work with information, carry out detailed tasks, and have clerical or numerical interests.

At work and at home, you may:

Be efficient, well-organized, persistent, methodical, or conscientious

Like to follow a plan, organize information or materials, work with numbers, use a computer, or collect data

Be able to meet deadlines, keep accurate records, file and organize documents, use a database, or work with systems

This information was retrieved on November 11, 2021 at 10:18 PM Eastern Time from Interest Assessment at CareerOneStop (www.careeronestop.org), sponsored by the U.S. Department of Labor, Employment and Training Administration.

Data on this tool come from various sources:

The information and formula for **matching interests to careers** come from the O*NET's Interest Profiler (<https://www.onetcenter.org/IP.html>).

Outlook data come from O*NET's Bright Outlook occupations (<https://www.onetonline.org/find/bright>).

Wage data come from the U.S. Department of Labor's Bureau of Labor Statistics, Occupational Employment Statistics Survey (<https://www.bls.gov/oes/>).

Education data come from the U.S. Department of Labor's Bureau of Labor Statistics, Office of Occupational Statistics and Employment Projections (<https://www.bls.gov/emp/>).

RIASEC information on occupations come from O*NET's Interest Profiler (<https://www.onetcenter.org/IP.html>).

Sample Interest Assessment Career Match

CareerOneStop Interest Assessment



We found 179 career(s) matching your interest assessment.

Match	Career	Outlook	Hourly Wages	Education
Best	Ambulance Drivers & Attendants	Bright	\$13.43	High school diploma or equivalent
Best	Amusement & Recreation Attendants	Bright	\$11.9	No formal educational credential
Best	Animal Caretakers	Bright	\$12.54	High school diploma or equivalent
Best	Athletes & Sports Competitors	Bright	No Data Available	No formal educational credential
Best	Automotive Glass Installers & Repairers	Below Average	\$18.13	High school diploma or equivalent
Best	Baggage Porters & Bellhops	Bright	\$13	High school diploma or equivalent
Best	Bailiffs	Below Average	\$23.08	High school diploma or equivalent
Best	Barbers	Bright	\$15.61	Postsecondary certificate
Best	Baristas	Bright	\$11.47	No formal educational credential
Best	Bartenders	Bright	\$12	No formal educational credential
Best	Bus Drivers, Transit & Intercity	Bright	\$22.07	High school diploma or equivalent
Best	Buyers & Purchasing Agents, Farm Products	Below Average	\$32.06	Bachelor's degree
Best	Coaches & Scouts	Bright	No Data Available	Bachelor's degree

Match	Career	Outlook	Hourly Wages	Education
Best	Construction Managers	Bright	\$46.72	Bachelor's degree
Best	Cooks, Fast Food	Below Average	\$11.72	No formal educational credential
Best	Cooks, Institution & Cafeteria	Below Average	\$13.78	No formal educational credential
Best	Cooks, Short Order	Below Average	\$12.77	No formal educational credential
Best	Correctional Officers & Jailers	Below Average	\$22.79	High school diploma or equivalent
Best	Couriers & Messengers	Below Average	\$14.89	High school diploma or equivalent
Best	Crossing Guards & Flaggers	Bright	\$14.8	No formal educational credential
Best	Customs & Border Protection Officers	Bright	\$31.51	High school diploma or equivalent
Best	Demonstrators & Product Promoters	Average	\$15.62	No formal educational credential
Best	Dining Room & Cafeteria Attendants & Bartender Helpers	Bright	\$12.03	No formal educational credential
Best	Dispatchers	Below Average	\$19.7	High school diploma or equivalent
Best	Driver/Sales Workers	Average	\$13.44	High school diploma or equivalent
Best	Fast Food & Counter Workers	Bright	\$11.47	No formal educational credential
Best	First-Line Supervisors of Construction Trades & Extraction Workers	Bright	\$32.61	High school diploma or equivalent
Best	First-Line Supervisors of Correctional Officers	Below Average	\$29.28	High school diploma or equivalent

Match	Career	Outlook	Hourly Wages	Education
Best	First-Line Supervisors of Farming, Fishing, & Forestry Workers	Below Average	\$24.08	High school diploma or equivalent
Best	First-Line Supervisors of Firefighting & Prevention Workers	Bright	\$37.92	Postsecondary certificate
Best	First-Line Supervisors of Food Preparation & Serving Workers	Bright	\$16.62	High school diploma or equivalent
Best	First-Line Supervisors of Gambling Services Workers	Bright	\$24.25	High school diploma or equivalent
Best	First-Line Supervisors of Helpers, Laborers, & Material Movers, Hand	Bright	\$26.38	High school diploma or equivalent
Best	First-Line Supervisors of Housekeeping & Janitorial Workers	Bright	\$20.21	High school diploma or equivalent
Best	First-Line Supervisors of Landscaping, Lawn Service, & Groundskeeping Workers	Bright	\$24.52	High school diploma or equivalent
Best	First-Line Supervisors of Material-Moving Machine & Vehicle Operators	Bright	\$26.38	High school diploma or equivalent
Best	First-Line Supervisors of Mechanics, Installers, & Repairers	Average	\$33.77	High school diploma or equivalent
Best	First-Line Supervisors of Police & Detectives	Bright	\$44.7	High school diploma or equivalent
Best	First-Line Supervisors of Production & Operating Workers	Below Average	\$30.22	High school diploma or equivalent
Best	First-Line Supervisors of Retail Sales Workers	Bright	\$19.99	High school diploma or equivalent

Match	Career	Outlook	Hourly Wages	Education
Best	Flight Attendants	Bright	No Data Available	High school diploma or equivalent
Best	Food Servers, Nonrestaurant	Bright	\$12.46	No formal educational credential
Best	Food Service Managers	Below Average	\$27.21	High school diploma or equivalent
Best	Forest Fire Inspectors & Prevention Specialists	Bright	\$20.26	High school diploma or equivalent
Best	Funeral Attendants	Below Average	\$14.01	High school diploma or equivalent
Best	Gambling & Sports Book Writers & Runners	Average	\$12.13	High school diploma or equivalent
Best	Gambling Cage Workers	Bright	\$13.77	High school diploma or equivalent
Best	Gambling Dealers	Bright	\$11.41	High school diploma or equivalent
Best	Gambling Surveillance Officers & Gambling Investigators	Bright	\$16.97	High school diploma or equivalent
Best	Hosts & Hostesses, Restaurant, Lounge, & Coffee Shop	Bright	\$11.48	No formal educational credential
Best	Insurance Appraisers, Auto Damage	Below Average	\$31.52	Postsecondary certificate
Best	Library Assistants, Clerical	Below Average	\$13.81	High school diploma or equivalent
Best	Lodging Managers	Below Average	\$27.25	High school diploma or equivalent
Best	Maids & Housekeeping Cleaners	Bright	\$12.61	No formal educational credential
Best	Manicurists & Pedicurists	Bright	\$13.4	Postsecondary certificate

Sample Occupation Profile



CareerOneStop Occupation Profile

First-Line Supervisors of Construction Trades and Extraction Workers

Description: what do they do?

Directly supervise and coordinate activities of construction or extraction workers.

Also known as:

Coal Mine Production Foreman, Construction Foreman, Construction Supervisor, Electrical Supervisor, Field Operations Supervisor, Field Supervisor, Insulation Foreman, Roustabout Field Supervisor, Sheet Metal Foreman, Site Superintendent

Career video

<https://cdn.careeronestop.org/OccVids/OccupationVideos/47-1011.00.mp4>

Transcript: Building above the ground is called construction. Taking materials from beneath the surface is called extraction. Both of these processes require a lot of coordination – someone to make sure that the right job is done, at the exact time it’s needed, as safely as possible. First Line Supervisors and Managers of Construction Trades and Extraction Workers are like orchestra conductors. Queuing each person to play his or her part. They tell equipment operators when to arrive and what their responsibilities will be... ..and make sure there are enough workers at the site to get a job done on schedule. In addition to scheduling, training and motivating workers, supervisors keep records to document important information. They also have to be able to manage money to keep projects on budget. Good organizational and communication skills are a necessity. In addition to a high school diploma they might also have training in business methods such as accounting. Many supervisors work alongside the people they manage. In fact, they’re often promoted from the workforce after years of experience. Whether they work underground, or high above it, First Line Supervisors and Managers of Construction Trades and Extraction workers do important work for a nation on the move.

Outlook: will there be jobs?



New job opportunities are **very likely** in the future.

[Find job openings](#)

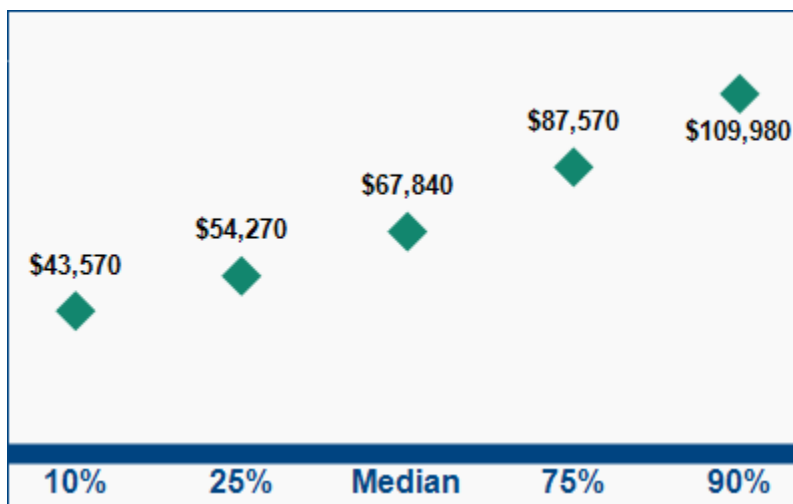
Projected employment

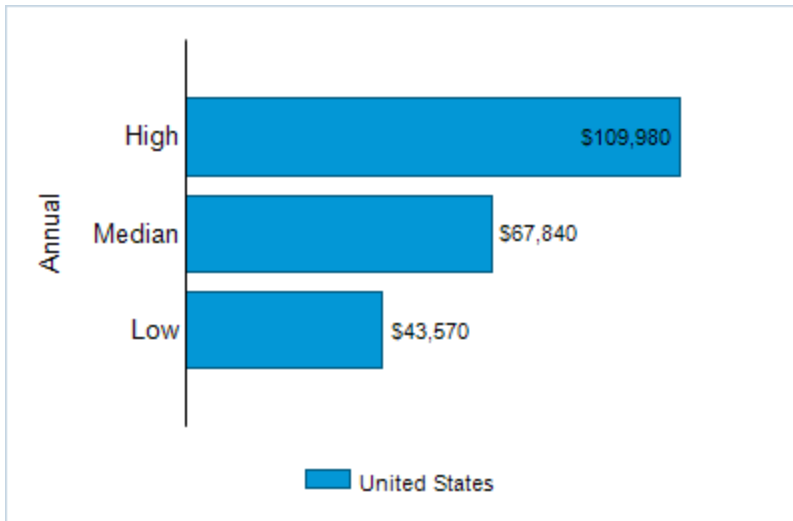
United States
692,200 2020 Employment
735,300 2030 Employment
6% Percent change
70,700 Annual projected job openings

[Compare projected employment](#)

Typical wages

Annual wages for First-Line Supervisors of Construction Trades and Extraction Workers in United States





Location	United States
10%	\$43,570
25%	\$54,270
Median	\$67,840
75%	\$87,570
90%	\$109,980

[See more wages](#)

Education and experience: to get started

People starting in this career usually have:

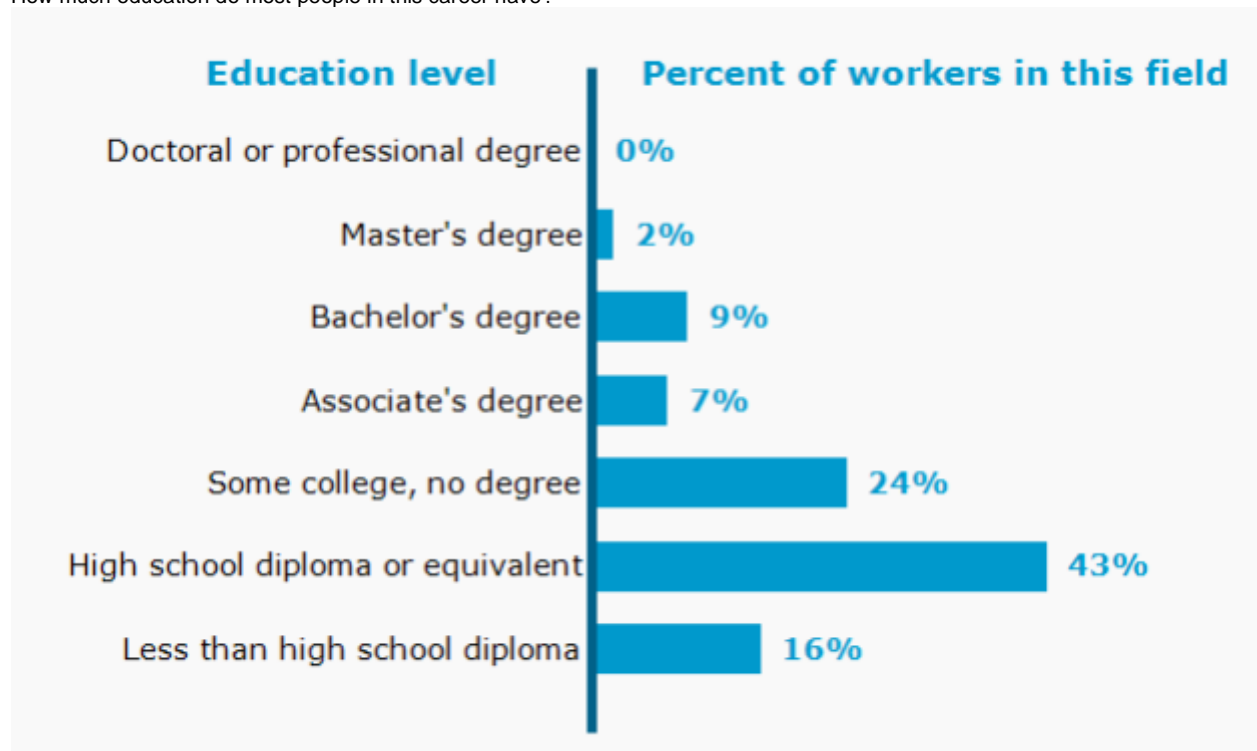
- High school diploma or equivalent
- 5 years or more work experience
- No on-the-job training

Programs that can prepare you:

- [Blasting/Blaster.](#)
- [Building Construction Technology/Technician.](#)
- [Building/Construction Site Management/Manager.](#)
- [Building/Home/Construction Inspection/Inspector.](#)
- [Building/Property Maintenance.](#)
- [Carpentry/Carpenter.](#)
- [Carpet, Floor, and Tile Worker.](#)
- [Concrete Finishing/Concrete Finisher.](#)
- [Construction Trades, General.](#)
- [Drywall Installation/Drywaller.](#)
- [Electrician.](#)
- [Glazier.](#)
- [Insulator.](#)
- [Mason/Masonry.](#)
- [Painting/Painter and Wall Coverer.](#)
- [Pipefitting/Pipefitter and Sprinkler Fitter.](#)
- [Plumbing Technology/Plumber.](#)
- [Roofer.](#)
- [Well Drilling/Driller.](#)

Typical education

How much education do most people in this career have?



[Find local training](#)

Certifications: show your skills

Let employers know you have the skills to do well at this job.
Earning a **certification** can help you:

- Get a job
- Get a promotion

[Find certifications](#)

Licenses: do you need one?

Some states require an **occupational license** to work in this career.

[Find license details for your state](#)

Apprenticeships: learn on the job

Apprenticeships combine paid on-the-job-training with classroom lessons.

[Find apprenticeship opportunities](#)

Activities: what you might do in a day

- Evaluate projects to determine compliance with technical specifications.
 - Monitor construction operations.
 - Inspect equipment or tools to be used in construction or excavation.
 - Review blueprints or specifications to determine work requirements.
 - Direct construction or extraction personnel.
 - Coordinate construction project activities.
 - Estimate materials requirements for projects.
 - Estimate construction project labor requirements.
 - Order construction or extraction materials or equipment.
 - Train construction or extraction personnel.
 - Mark reference points on construction materials.
 - Measure work site dimensions.
 - Communicate with other construction or extraction personnel to discuss project details.
 - Assist skilled construction or extraction personnel.
 - Record operational or environmental data.
-

Knowledge

People in this career often know a lot about:

- **Administration and Management** - Knowledge of business and management principles involved in strategic planning, resource allocation, human resources modeling, leadership technique, production methods, and coordination of people and resources.
 - **Building and Construction** - Knowledge of materials, methods, and the tools involved in the construction or repair of houses, buildings, or other structures such as highways and roads.
 - **Mechanical** - Knowledge of machines and tools, including their designs, uses, repair, and maintenance.
 - **English Language** - Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.
 - **Customer and Personal Service** - Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.
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- **Design** - Knowledge of design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models.
- **Public Safety and Security** - Knowledge of relevant equipment, policies, procedures, and strategies to promote effective local, state, or national security operations for the protection of people, data, property, and institutions.

Skills

People in this career often have these skills:

- **Coordination** - Changing what is done based on other people's actions.
- **Speaking** - Talking to others.
- **Active Listening** - Listening to others, not interrupting, and asking good questions.
- **Critical Thinking** - Thinking about the pros and cons of different ways to solve a problem.
- **Management of Personnel Resources** - Selecting and managing the best workers for a job.
- **Reading Comprehension** - Reading work-related information.
- **Monitoring** - Keeping track of how well people and/or groups are doing in order to make improvements.
- **Time Management** - Managing your time and the time of other people.

Abilities

People in this career often have talent in:

- **Oral Comprehension** - Listening and understanding what people say.
- **Oral Expression** - Communicating by speaking.
- **Problem Sensitivity** - Noticing when problems happen.
- **Information Ordering** - Ordering or arranging things.
- **Near Vision** - Seeing details up close.
- **Deductive Reasoning** - Using rules to solve problems.

Related occupations

- [First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers](#)
- [First-Line Supervisors of Farming, Fishing, and Forestry Workers](#)
- [Plumbers, Pipefitters, and Steamfitters](#)
- [Forest and Conservation Technicians](#)
- [Explosives Workers, Ordnance Handling Experts, and Blasters](#)
- [First-Line Supervisors of Mechanics, Installers, and Repairers](#)
- [Industrial Production Managers](#)
- [Maintenance and Repair Workers, General](#)
- [Surveying and Mapping Technicians](#)

This information was retrieved on November 11, 2021 at 5:24 PM Eastern Time from Occupation Profile at CareerOneStop (www.CareerOneStop.org), sponsored by the U.S. Department of Labor, Employment and Training Administration.

<https://www.CareerOneStop.org/Toolkit/Careers/occupations/occupation-profile.aspx>

Occupational descriptions, outlook data, sample titles (“Also known as”), activities, knowledge, skills, abilities, interests, tasks, and related occupations come from the [O*NET 26.0 Database \(https://www.onetcenter.org/database.html\)](https://www.onetcenter.org/database.html) by the U.S. Department of Labor, Employment and Training Administration (USDOL/ETA). Used under the [CC BY 4.0 \(https://creativecommons.org/licenses/by/4.0/\)](https://creativecommons.org/licenses/by/4.0/) license. O*NET® is a trademark of USDOL/ETA.

Career videos were developed by CareerOneStop (<https://www.careeronestop.org/Videos/CareerVideos/career-videos.aspx>). Video content is based on data from the USDOL’s Bureau of Labor Statistics website Occupational Outlook Handbook (<https://bls.gov/oooh/home.htm>) and O*NET OnLine (<https://www.onetonline.org/>), sponsored by the USDOL/ETA. The video creation platform, WOCHIT, was used to produce the career videos.

Outlook data (“Will there be jobs?”) come from O*NET at the USDOL/ETA (<https://www.onetonline.org/find/bright> and https://www.onetcenter.org/bright/2019/mnm_outlook.html).

State employment projections data for 2018-28 are from Projections Central(<http://www.projectionscentral.com>) and each state’s [Labor Market Information office](#)

National employment projections data come from the USDOL’s Bureau of Labor Statistics, Employment Projections program (<https://www.bls.gov/emp>), Employment by detailed occupation, 2020 and projected 2030.

Wage data are from the USDOL’s Bureau of Labor Statistics Occupational Employment Statistics, May 2020. (<https://www.bls.gov/oes>)

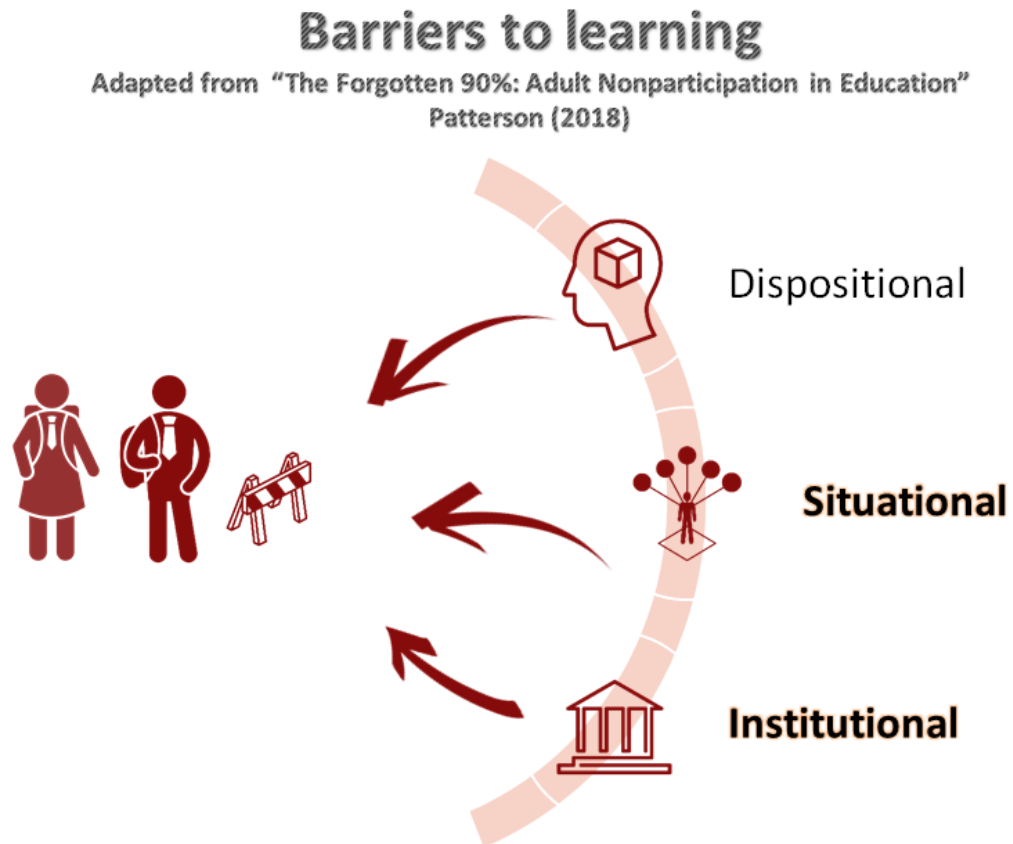
Typical education needed for entry (“Education and experience: to get started”) comes from USDOL’s Bureau of Labor Statistics, Employment Projections program, Education and Training Data, Education and training assignments by detailed occupation, 2020 (<https://www.bls.gov/emp/documentation/education-training-system.htm>).

Education and attainment data (“Typical education”) are from the U.S. Department of Labor, Employment Projections, Education and Training Data, Educational attainment for workers 25 years and older by detailed occupation, 2018-19 (<https://www.bls.gov/emp/documentation/education-training-system.htm>).

Barriers to Learning

Barriers to Learning, Part 1 by 21CLEO Research Team | Aug 14, 2019 | 21 CLEO, Announcements

<https://edtech.worlded.org/barriers-to-learning-part-1/>



Institutional barriers are the result of educational or employment policies and practices which prevent participation.

- Lack of Support
- Cost of Education
- Immediate Supervisors

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Situational barriers are deterrents that arise as adults attempt to balance multiple roles in their lives or deal with health conditions.

- **Transportation**
- **Child Care**
- **English Language and Literacy**
- **Digital Inequity**

Dispositional barriers occur when the learner lacks confidence in their skills and abilities, or when they are unaware of their career options.



[This Photo](#) by Unknown Author is licensed under [CC BY](#)

Examining the Targeted Course

OST Course/Career Pathway			
What jobs are associated with the OST?			
Certifications associated with training			
Are certifications employer recognized?			
Pre-Requisites	Basic Skills Threshold		
	Language Requirement		
	Experience in Field or Occupational Skill Threshold		
	Educational Credential		
Exit Criteria/ Competencies Required	Testing/Assessment (Final test, placement test score, etc.)		
	Performance Verification (Reading a blueprint, measuring a pipe, writing incident reports, etc.)		
	Credentialing Completed		
What funding sources can be used for the IET?			
What planning time is allotted for collaborating instructors?			
How will participants be recruited or prepared for the IET program?			
Is prior preparation or specific support services needed?			
Assessing Course Appropriateness:			
Will the target population be able to successfully complete this course in the allotted time with basic skills support?	YES	NO	UNSURE

Integrated Education and Training Program of Study Template

Integrated Education and Training (IET): An eligible provider’s activities provide learning in context, through integrated education and training, so that an individual acquires the skills needed to transition to and complete postsecondary education and training programs, obtain and advance in employment leading to economic self-sufficiency, and to exercise the rights and responsibilities of citizenship.

The Integrated Education and Training Program of Study form will be used to describe how the eligible provider will provide, develop and implement Integrated Education and Training (IET) service approach(s). Submit a program of study form for each IET program offered and AEFLA funds can **ONLY** be used to support IET programs that are prior approved by FDOE.

Step 1. Identify in the IET Program Type Description the area(s) of focus, model/project description, and the expected number of students enrolled in each program type, the number of weeks and hours per week.

Step 2. Use the Shared Learning Objectives to outline an instructional unit for an IET program(s) that integrates the three elements of IET. Use the (1) Adult Education frameworks/standards for academic and literacy activities, the (2) workforce preparation activities, and (3) workforce training skills incorporated to create a shared learning objectives list for the unit.

Step 3. Provide a description of the single set(s) of learning objectives that will guide instruction. Provide specific action steps and a timeline.

Step 4. Identify the types of credentials of value a student may earn by participating in an IET Program.

Adult education curriculum frameworks are available at <http://www.fldoe.org/academics/career-adult-edu/adult-edu>.

Agency and County covered under this Program of Study:

Step 1. IET Program(s) Type Description

Brief description of the IET program(s) offered.

Area of focus (occupational cluster, career pathway, workforce focus)

Model description (see Implementation Guide for IET model descriptions)

Program Type:	Expected Number of Students to be Served:	Number of Weeks:	Hours per Week:
Adult Basic Education			
Adult Secondary Education			
English Language Acquisition			
Integrated English Literacy and Civics Education (Sec. 243)			

Integrated Education and Training (IET)

“...a service approach that provides (1) **adult education and literacy activities** *concurrently* and *contextually* with (2) **workforce preparation activities** and (3) **workforce training** for a specific occupation or occupational cluster for the purpose of educational and career advancement”
 (34 CFR 463.35)

<p>Adult Education and Literacy “...programs, activities, and services that include: (a) adult education, (b) literacy, (c) workplace adult education and literacy activities, (d) family literacy activities, (e) English language acquisition activities, (f)integrated English literacy and civics education, (g)workforce preparation activities, or (h) integrated education and training”</p> <p>(34CFR 463.30)</p>	<p>Workforce Preparation “...include activities, programs, or services designed to help an individual acquire a combination of basic academic skills, critical thinking skills, digital literacy skills, and self-management skills, including competencies in: (a)utilizing resources; (b) using information; (c) working with others; (d) understanding systems; (e) skills necessary for successful transition into and completion of postsecondary education or training, or employment; and (f) other employability skills that increase an individual’s preparation for the workforce.”</p> <p>(34 CFR 463.34)</p>	<p>Workforce Training “may include (i)occupational skill training...; (ii)on-the-job training; (iii)incumbent worker training...; (iv)programs that combine workplace training with related instruction...; (v)training programs operated by the private sector; (vi)skill upgrading and retraining; (vii)entrepreneurial training; (viii)transitional jobs...; (ix)job readiness training provided in combination with services...(i) through (viii); (x)adult education and literacy activities, including activities of English language acquisition and integrated education and training programs, provided concurrently or in combination with services described in any of clauses (i) through (vii); and (xi)customized training conducted with a commitment by an employer or group of employers to employ an individual upon successful completion of the training.”</p> <p>WIOA Section 134(c)(3)(D)</p>
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Step 2: Shared Learning Objectives Template		
Academic and Literacy Activities Include frameworks/standards	Workplace Preparation Activities	Workforce Training Skills
Step 3. Provide a description of the single set(s) of learning objectives that will guide instruction. Include a sample of the single set of learning objectives to support the description. Provide specific action steps and a timeline.		
Step 4. Identify the credentials of value a student may earn by participating in an IET Program.		

Links to Resources and References

IPDAE's Adult Education Career Pathways Channel

<https://www.floridaipdae.org/index.cfm?fuseaction=resources.AECP>

Florida's Integrated Education & Training Resources

<https://www.fldoe.org/academics/career-adult-edu/adult-edu/adult-edu-career-pathways.stml>

Career Certificate Program List

<https://www.fldoe.org/core/fileparse.php/19937/urlt/2021-2022-secondary-program-list.rtf>

AS/AAS/CCC/ATD Program List

<https://www.fldoe.org/core/fileparse.php/19937/urlt/2021-22-CC-program-list.rtf>

Local Workforce Development Area WIOA Plans

<http://floridajobs.org/local-workforce-development-board-resources/programs-and-resources/local-workforce-development-area-wioa-plans>

U.S. Bureau of Labor Statistics Employment Projections

<https://www.bls.gov/emp/>

Business Skills Employers Will Want in a Post-COVID World

<https://www.mba.com/business-school-and-careers/why-business-school/skills-employers-will-want-in-a-post-covid-world>

Future-Oriented Skills: Skills In Demand to Watch in the Next Five Years

<https://hrforecast.com/a-guide-to-future-oriented-skills-skills-in-demand-to-watch-in-the-next-five-years/>

CareerOneStop Interest Assessment

<https://www.careeronestop.org/Toolkit/Careers/interest-assessment.aspx>

Barriers to Learning, Part 1

<https://edtech.worlded.org/barriers-to-learning-part-1/>