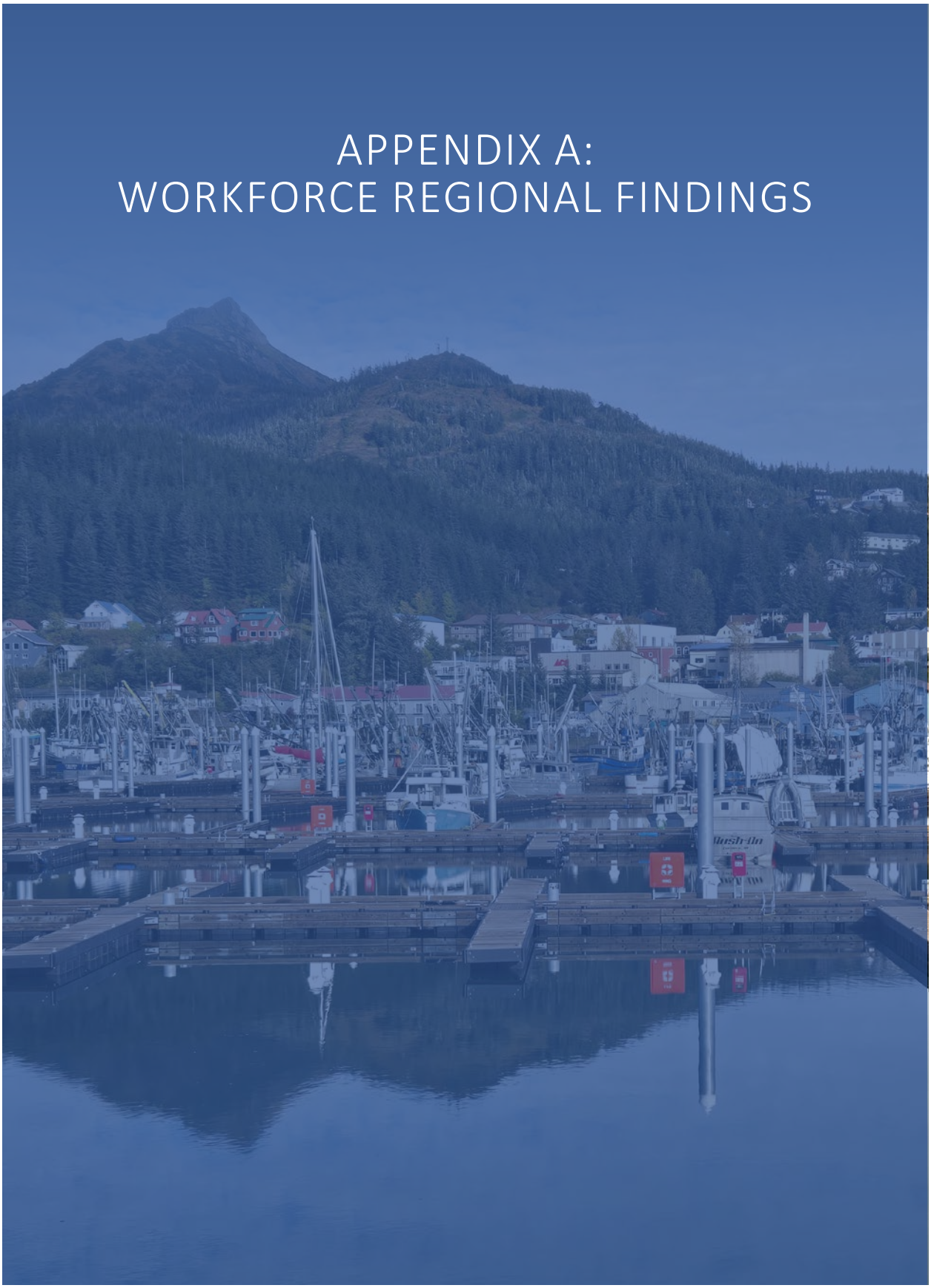
APPENDIX A: WORKFORCE REGIONAL FINDINGS



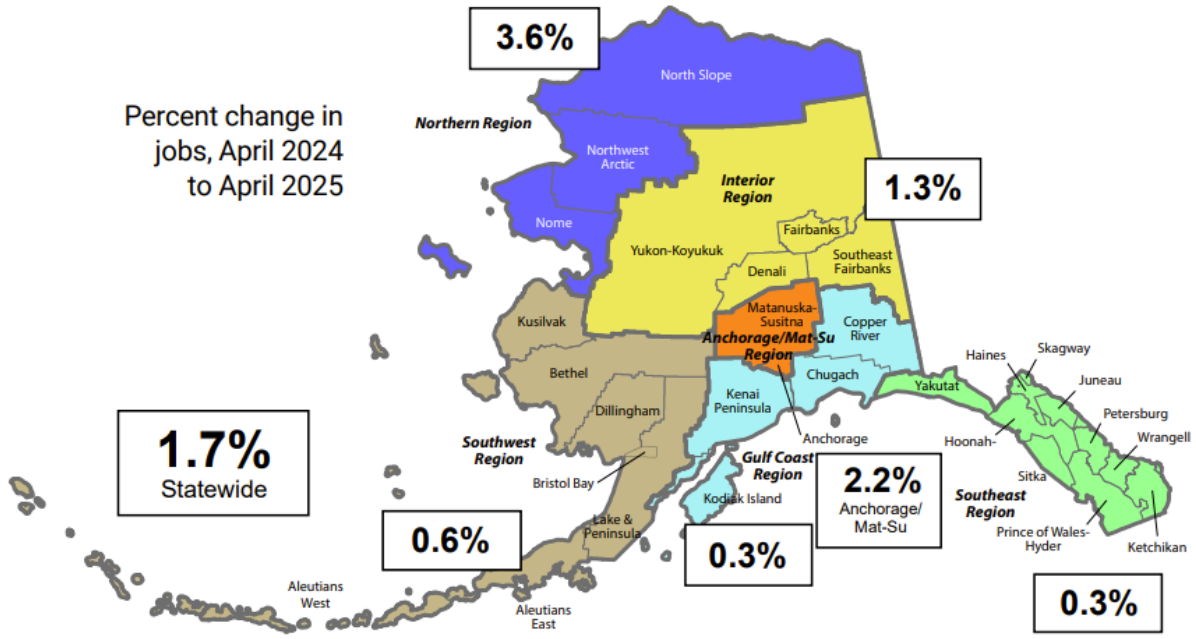
APPENDIX A: WORKFORCE REGIONAL FINDINGS

Regional Findings

As noted in the Challenges and Opportunities section of the workforce analysis, given Alaska's large and unique geography, it is not enough to look simply at the statewide demand for an occupation or industry. Regional differences matter and should shape the approach that municipalities and stakeholders take to investing in occupation growth. Alaska's job growth expectations are also not uniform in general across its regions. Anchorage/Mat-Su, Alaska's largest population center, and the energy rich North Slope regions for example, are anticipated to see much larger job growth in general than the statewide average or the more remote parts of the Southwest region.

Employment Growth by Region

Source: June 2025 Alaska Economic Trends, Department of Labor and Workforce Development



This appendix outlines how demand for focus occupations looks across Alaska's regions. It is important to note that the regional analysis is limited by the small population size of some areas. Certain occupations were simply not numerous enough in specific regions to be visible in all regional analyses – in particular insulation workers, solar photovoltaic installers, and electrical and electronics repairers, powerhouse, substation, and relay. Each of the following regional analyses includes occupations with enough data for analysis.

Anchorage/Mat-Su Region

Home to Alaska's largest city and its suburbs, the Anchorage/Mat-Su region has strong education and training opportunities for sustainable energy occupations, ranging from project management to construction trades.

At the time of this analysis, several related training programs (i.e. logistics, refrigeration and heating technology) were currently suspended. This indicates a need to better understand if training related to this key occupation needs to be bolstered.

Training Ratios in the Anchorage/Mat-Su region[1]

Occupation Title*	Needed workforce: current workforce
Electrical Line Installers	1 : 2.2
Refuse & Recyclable Material Collectors	1 : 2.6
Substation, Powerhouse, and Relay Workers	1 : 3.1
HVAC/R	1 : 3.4
Automotive Service Techs	1 : 4.1
Electricians	1 : 4.3
Insulation Workers	1 : 7.2
Firefighting and Prevention Workers	1 : 12.7

For occupations that require on-the-job training, the following have a low training ratio, indicating limited capacity for training of new workers:

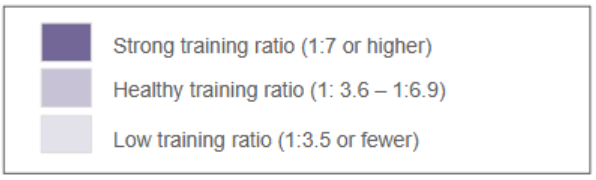
- Electrical Line Installers
- Refuse and Recyclable Material Collectors
- Substation, Powerhouse, and Relay Workers
- HVAC/R Technicians

The following occupations have a healthy training ratio:

- Automotive Service Technicians
- Electricians

The following have strong training ratios, indicating capacity to train new workers:

- Insulation Workers
- Firefighting and Prevention workers



1 Training ratio seeks to understand how much workforce capacity exists to train the next generation of workers. It compares number of workers that will be needed in 10 years, including retirements and growth to the size of the current workforce.

Sustainable Energy Training Programs
Anchorage / Mat-Su Region

UAA – Anchorage
- Project Management (minor)
- Business and Data Analytics (BBA, Certificate)
- Management (BBA)
- Logistics and Supply Chain Management (Certificate, BBA)
- Natural Science (BS)
- Architectural and Engineering Technology (AAS)
- Mechanical Engineering (BS)
- Electrical Engineering (BS)
- Civil Engineering (BS)
- Geological Sciences (BS)
- Geographic Information Systems (Minor, OEC)
- Fire and Emergency Services (AAS)
- Environment and Society (BA, BS)
- Diesel Power Technology (AAS, Certificate)
- Automotive Technology (OEC, Certificate)
- Construction Management (AAS, BS)
- Apprenticeship Technology (AAS)

UAA – Matanuska-Susitna College
- Associate of Science (AS)
- Business (AAS)
- Commercial Refrigeration Systems (OEC)
- Refrigeration and Heating (OEC)
- Refrigeration and Heating Technology (Certificate, AAS, OEC)
- Residential and Light Commercial Heating and Ventilation (OEC)

OEC = Occupational Endorsement Certificate
Blue = program suspended at time of analysis

Anchorage Municipal Training
- Anchorage Fire Department Training

Alaska Works Partnership
- Sheetmetal & HVAC
- Electrical Wiring
- Construction Craft Laborers Pre-Apprenticeship

Alaska Metal & Mechanical / Sheet Metal Workers Local 23
- HVAC-R Service Apprenticeship (Anchorage and Southeast)
- Sheet Metal Apprenticeship (Anchorage and Southeast)

State of Alaska
- Fire Accreditation Standards and Training (Statewide)
- Solid Waste Training videos, bootcamps & Landfill operator tools (Statewide)

Local 7 Insulators
- Mechanical Insulator Apprenticeship (Statewide)

Associated Builders and Contractors (ABC) of Alaska
- Roofers (Statewide)
- Construction Craft Laborer (Statewide)
- Electrical (Statewide)
- HVAC (Statewide)
- Mechanical Insulation (Statewide)

NECA / IBEW 1547
- Electrician Apprenticeship (Statewide)
- Lineman Apprenticeship (Statewide)

Interior Region

In the Interior region of Alaska you can find Fairbanks, the second largest city in the state, as well as Usibelli mine, Alaska's only current active coal mine. Through programs at UAA – Fairbanks, the Interior region has many training programs that range from engineering to power plant operation.

Across many occupations, the Interior region lacks the existing workforce to train new workers.

Training Ratios in the Interior region

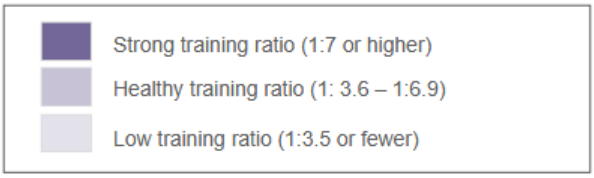
Occupation Title*	Needed workforce: current workforce
Refuse & Recyclable Material Collectors	1 : 1.5
Substation, Powerhouse, and Relay Workers	1 : 2.2
Firefighting & Prevention Workers	1 : 2.8
Electricians	1 : 3.1
Automotive Service Technicians	1 : 3.3
HVAC/R	1 : 3.9
Electrical Line Workers	1 : 4.4

For occupations that require on-the-job training, the following have a low training ratio, indicating limited capacity for training of new workers:

- Refuse and Recyclable Material Collectors
- Substation, Powerhouse, and Relay Workers
- Firefighting & Prevention Workers
- Electricians
- Automotive Service Technicians

The following occupations have a healthy training ratio:

- HVAC/R Technicians
- Electrical Line Workers



Sustainable Energy Training Programs
Interior Region

UAA – Fairbanks
- Civil Engineer (BS/MS)
- Electrical Engineering (BS)
- Climate and Arctic Sustainability (BA)
- Climate and Environmental Change (BS)
- Construction Management (AS)
- Diesel / Heavy Equipment (Certificate)
- Industrial Process Operator (AAS)
- Power Plant (Certificate)
- Automotive Technology (Certificate)
- Apprenticeship Technology (AAS)
- Sustainable Energy (OEC)
- Applied Business (AAS, Certificate)
- Associate of Science
- Business Administration (BBA)
- Basic Carpentry (OEC)
- Wildlife Biology and Conservation (BS)
- Rural Waste Management and Spill Response (OEC)

Partners for Progress in Delta
- Construction Trades Program
- Custom courses in response to community and industry need

Galena Interior Learning Academy
- Construction Trades
- Applied Mechanics

State of Alaska
- Fire Accreditation Standards and Training (Statewide)
- Solid Waste Training videos, bootcamps & Landfill operator tools (Statewide)

Local 7 Insulators
- Mechanical Insulator Apprenticeship (Statewide)

Associated Builders and Contractors (ABC) of Alaska
- Roofers (Statewide)
- Construction Craft Laborer (Statewide)
- Electrical (Statewide)
- HVAC (Statewide)
- Mechanical Insulation (Statewide)

NECA / IBEW 1547
- Electrician Apprenticeship (Statewide)
- Lineman Apprenticeship (Statewide)

OEC = Occupational Endorsement Certificate

Southeast Region

Southeastern Alaska includes the state capital of Juneau and is Alaska's cruise tourism and hospitality heartland. The Southeast region's strongest educational asset is University of Alaska Southeast, which has programs related to construction, environmental studies, general business, and power technology.

Notably, the HVAC-R and Sheet Metal Apprenticeship from Local 23 Union operates in Anchorage and the Southeast, indicating more directly pathways into HVAC-R in the southeast than in other regions.

Training Ratios in the Southeast

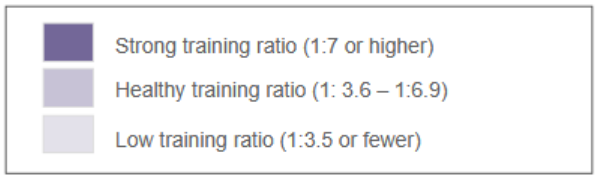
Occupation Title*	Needed workforce: current workforce
Firefighting & Prevention workers	1 : 1.5
Refuse & Recyclable Material Collectors	1 : 2
HVAC/R	1 : 2.6
Electrical Line Workers	1 : 2.6
Automotive Service Technicians	1 : 3.4
Electricians	1 : 3.7

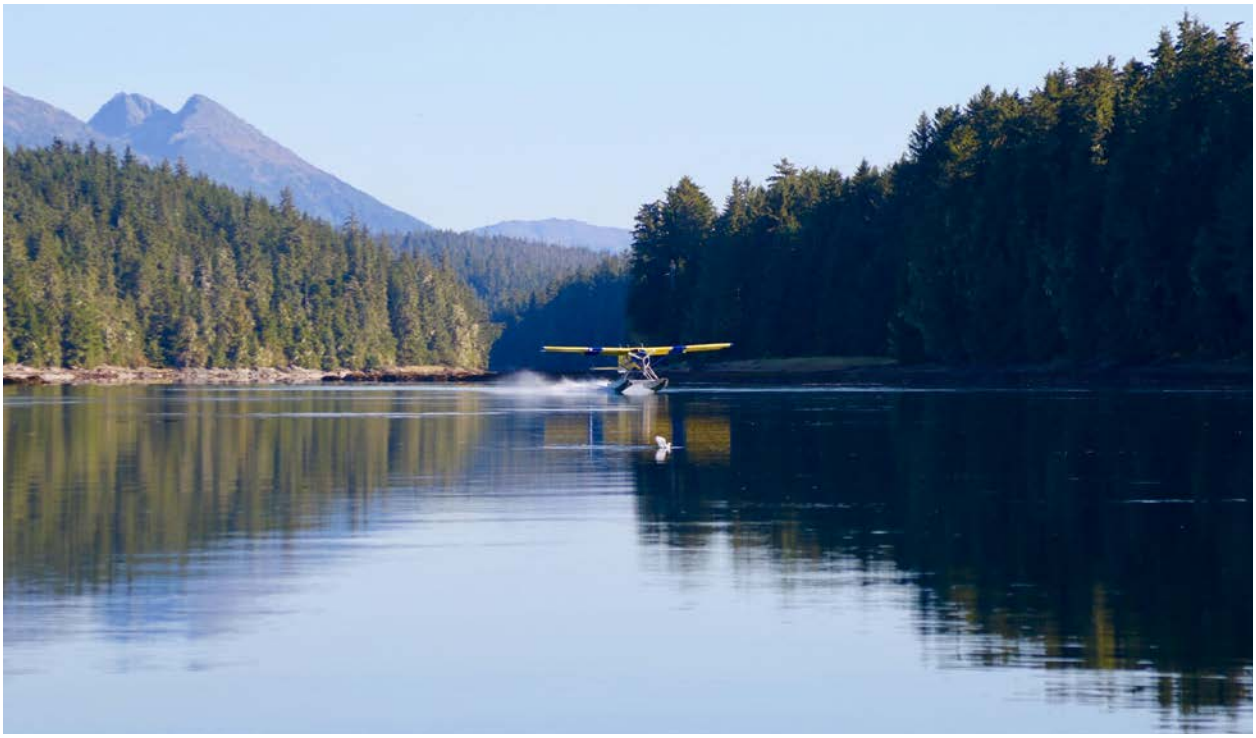
For occupations that require on-the-job training, the following have a low training ratio, indicating limited capacity for training of new workers:

- Firefighting & Prevention workers
- Refuse & Recyclable Material Collectors
- HVAC/R Technicians
- Electrical Line Workers
- Automotive Service Technicians

The following occupation has a healthy training ratio:

- Electricians





Sustainable Energy Training Programs
Southeast Region

UAS – Ketchikan / Sitka
- Construction (OEC)
- Environmental Science, Resources, and Studies (BS)
- Power Technology (AAS)
- Associate of Science
- Business (BBA)
- Public Administration (Master's Degree)

Alaska Metal & Mechanical / Sheet Metal Workers Local 23
- HVAC-R Service Apprenticeship (Anchorage and Southeast)
- Sheet Metal Apprenticeship (Anchorage and Southeast)

State of Alaska
- Fire Accreditation Standards and Training (Statewide)
- Solid Waste Training videos, bootcamps & Landfill operator tools (Statewide)

Local 7 Insulators
- Mechanical Insulator Apprenticeship (Statewide)

Associated Builders and Contractors (ABC) of Alaska
- Roofers (Statewide)
- Construction Craft Laborer (Statewide)
- Electrical (Statewide)
- HVAC (Statewide)
- Mechanical Insulation (Statewide)

NECA / IBEW 1547
- Electrician Apprenticeship (Statewide)
- Lineman Apprenticeship (Statewide)

OEC = Occupational Endorsement Certificate

Gulf Coast Region

Alaska's Gulf Coast region benefits from road network access to population centers like Anchorage, making it somewhat more accessible for both trainees and trainers. The Gulf Coast city of Seward is also home to AVTEC, Alaska's central vocational technical training center operated by the State of Alaska's Department of Labor and Workforce Development. AVTEC is a major feeder program to jobs across the state in a wide variety of skills, including those in demand for sustainable energy projects

Training Ratios in the Gulf Coast

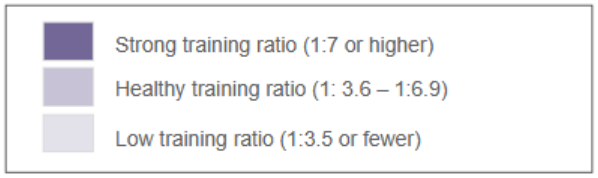
Occupation Title*	Needed workforce: current workforce
Firefighting & Prevention Workers	1 : 2.3
Refuse & Recyclable Material Collectors	1 : 2.3
Electrical Line Workers	1 : 2.5
Automotive Service Technicians	1 : 3.1
HVAC/R	1 : 3.1
Electricians	1 : 5

For occupations that require on-the-job training, the following have a low training ratio, indicating limited capacity for training of new workers:

- Firefighting & Prevention Workers
- Refuse & Recyclable Material Collectors
- Electrical Line Workers
- Automotive Service Technicians
- HVAC/R Technicians

The following occupation has a healthy training ratio:

- Electricians



Sustainable Energy Training Programs
Gulf Coast Region

UAA – Kenai Peninsula College
- Process Technology (AAS)
- Industrial Process Instrumentation (AAS)
- Conservation Ecology (OEC)
- Valve Repair and Maintenance (OEC)
- Associate of Science
- Business (AAS)

UAA – Prince William Sound College
- Construction Skills (OEC)
- Associate of Science

AVTEC
- Construction Technology
- Industrial Electricity
- Refrigeration
- Diesel/ Heavy Equipment Technologies
- Industrial Machine and Maintenance

Amundsen Educational Center
- Residential Construction

Alaska Works Partnership
- Electrical Wiring

State of Alaska
- Fire Accreditation Standards and Training (Statewide)
- Solid Waste Training videos, bootcamps & Landfill operator tools (Statewide)

Local 7 Insulators
- Mechanical Insulator Apprenticeship (Statewide)

Associated Builders and Contractors (ABC) of Alaska
- Roofers (Statewide)
- Construction Craft Laborer (Statewide)
- Electrical (Statewide)
- HVAC (Statewide)
- Mechanical Insulation (Statewide)

NECA / IBEW 1547
- Electrician Apprenticeship (Statewide)
- Lineman Apprenticeship (Statewide)

OEC = Occupational Endorsement Certificate

Southwest Region

The Southwest region includes Alaska's Aleutian Islands where fishing and related industries tend to dominate the employment landscape. This is a very remote region and travelling to training sites can be a significant challenge. In regions that are less populated and accessible like the Southwest, it is essential to consider not just who will install sustainable energy technology, but also who can maintain it for the long run. While there are limited state university campuses in this region, Alaska Native Corporations like the Bristol Bay Native Corporation can provide meaningful workforce development and training partnerships.

Training Ratios in the Southwest

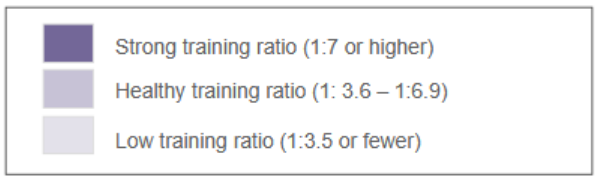
Occupation Title*	Needed workforce: current workforce
Electrical Line Workers	1 : 2.3
Firefighting & Prevention Workers	1 : 2.6
HVAC/R	1 : 3.1
Refuse & Recyclable Material Collectors	1 : 3.1
Automotive Service Technicians	1 : 4.2
Electricians	1 : 6.4

For occupations that require on-the-job training, the following have a low training ratio, indicating limited capacity for OTJ training of new workers:

- Electrical Line Workers
- Firefighting & Prevention Workers
- HVAC/R Technicians
- Refuse & Recyclable Material Collectors

The following occupations have a healthy training ratio:

- Automotive Service Technicians
- Electricians



Sustainable Energy Training Programs
Southwest Region

Southwest Alaska Vocational and Education Center (SAVEC)
- Construction Technology

UAF – Bristol Bay
- Home Energy Basics (online)
- Environmental Studies
- Rural Waste Management and Spill Response (OEC)
- Sustainable Energy (OEC)

Yuut Elitnaurviat
- Construction

State of Alaska
- Fire Accreditation Standards and Training (Statewide)
- Solid Waste Training videos, bootcamps & Landfill operator tools (Statewide)

Local 7 Insulators
- Mechanical Insulator Apprenticeship (Statewide)

Associated Builders and Contractors (ABC) of Alaska
- Roofers (Statewide)
- Construction Craft Laborer (Statewide)
- Electrical (Statewide)
- HVAC (Statewide)
- Mechanical Insulation (Statewide)

NECA / IBEW 1547
- Electrician Apprenticeship (Statewide)
- Lineman Apprenticeship (Statewide)

OEC = Occupational Endorsement Certificate

Northern Region

Also known as the North Slope, the Northern region is the center of Alaska's oil and gas industry. The northern region leads the state in job growth, attracting both workers from Alaska and from out of state to job opportunities despite the challenging climate. Though the Northern Region lacks the large population centers and formal educational institutions found in Southern Alaska, workers in this area can still access local and statewide training programs – especially in construction technologies.

Training Ratios in the Northern Region

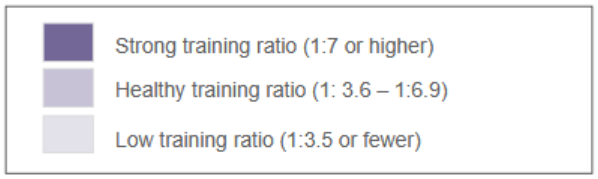
Occupation Title*	Needed workforce: current workforce
Electrical Line Workers	1 : 2.3
Firefighting & Prevention Workers	1 : 2.6
HVAC/R	1 : 3.1
Refuse & Recyclable Material Collectors	1 : 3.1
Automotive Service Technicians	1 : 4.2
Electricians	1 : 6.4

For occupations that require on-the-job training, the following have a low training ratio, indicating limited capacity for training of new workers:

- Electrical Line Workers
- Firefighting & Prevention Workers
- HVAC/R Technicians
- Refuse & Recyclable Material Collectors

The following occupations have a healthy training ratio:

- Electricians
- Automotive Service Technicians



Sustainable Energy Training Programs
Northern Region

Alaska Technical Center
- Construction Trades Technology Program
- Process Technology

Ilisagvik College/ Northslope Training Education Cooperative
- Construction Technologies
- Business Management

Northwestern Alaska Career and Technical Cetner (NACTEC)
- Small Engine Repair

State of Alaska
- Fire Accreditation Standards and Training (Statewide)
- Solid Waste Training videos, bootcamps & Landfill operator tools (Statewide)

Local 7 Insulators
- Mechanical Insulator Apprenticeship (Statewide)

Associated Builders and Contractors (ABC) of Alaska
- Roofers (Statewide)
- Construction Craft Laborer (Statewide)
- Electrical (Statewide)
- HVAC (Statewide)
- Mechanical Insulation (Statewide)

NECA / IBEW 1547
- Electrician Apprenticeship (Statewide)
- Lineman Apprenticeship (Statewide)

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