Alaska Department of Labor & Workforce Development

2026 AKLNG Workforce Trends & Opportunities

An Environmental Scan

Prepared by
Northern Industrial Training
for the
Alaska Workforce Investment Board

Content

Appendices

Executive Summary

The Alaska LNG (AKLNG) Project is one of the largest potential infrastructure developments in Alaska's history. The project would transport natural gas from the North Slope through an approximately 800-mile pipeline to a liquefaction and export facility in Southcentral Alaska. AKLNG would generate significant construction employment across multiple phases and create long-term operations jobs. The scale and timing of the project also present a major workforce planning challenge for the state.

This report updates the 2018 Gasline Workforce Plan and evaluates Alaska's current ability to supply the workforce required to construct and operate the project. [4] Since the original analysis, project timelines have shifted, commercial partnerships have evolved, and several additional large infrastructure and resource development projects have advanced across Alaska. These developments increase the likelihood that multiple projects could compete for the same construction and industrial workforce during overlapping timeframes.

Workforce modeling indicates that peak construction employment for AKLNG alone could reach approximately 6,600 workers during overlapping pipeline and facility development phases. When other potential projects in Alaska are included—such as Donlin Gold, the Ambler Access Project, Graphite One, and several infrastructure projects—peak statewide construction demand could increase to roughly 8,670 workers (Q3 2028), or about a quarter of Alaska's current construction workforce. Workforce demand is concentrated in a relatively small number of occupations, including construction laborers, heavy equipment operators, welders, electricians, plumbers and pipefitters, mechanics, and commercial drivers.

Alaska enters this potential development window with several structural workforce challenges. The state's construction workforce is aging, with a large share of skilled trades workers approaching retirement. At the same time, Alaska's working-age population has declined over the past decade due to sustained net out-migration. Employers have increasingly relied on nonresident labor to meet workforce needs, particularly in construction and resource development industries. These trends suggest that Alaska cannot rely solely on its existing workforce to meet the labor demand associated with large-scale project development.

Alaska maintains a diverse workforce training system that includes secondary Career and Technical Education (CTE) programs, vocational training providers, colleges and universities, registered apprenticeship programs, regional and vocational training providers, and workforce organizations affiliated with Alaska Native Training and Education Foundations. Together, these institutions support a broad range of construction and technical occupations relevant to AKLNG. Survey responses from training providers indicate that current training output remains modest relative to the workforce demand associated with concurrent project development. Providers identified instructor availability, training facility capacity, geographic access, and funding stability as key constraints affecting their ability to expand programs.

The statewide workforce gap analysis suggests that Alaska's primary workforce challenge is the disparity between projected peak workforce demand and the number of workers currently produced by the state's training pipeline in key construction trades. Some occupations can expand more quickly through short-term credential programs and vocational training.

Other occupations, such as licensed construction trades and technical professions, require multi-year training pathways and require earlier investment to influence workforce supply.

Increasing Alaska resident participation in project employment will require coordinated investment across multiple training pathways. Short-cycle training programs can help support near-term construction workforce needs, while apprenticeship programs and college-level technical training strengthen longer-term workforce capacity. Recruitment strategies—including stronger transitions from high school CTE programs, outreach to mid-career workers, and recruitment of out-of-state students into Alaska's postsecondary institutions—can also help expand the workforce pipeline.

Because the scale of workforce demand may exceed the available resident workforce, nonresident labor will likely remain an important component of the construction workforce. Workforce strategies should focus on maximizing Alaska resident participation where possible while recognizing the practical limitations of the state's population size and labor market conditions.

Successful workforce scaling will depend on early preparation, coordinated implementation, and ongoing monitoring of workforce indicators. A phased approach can help align training output with project labor demand, beginning with workforce preparation prior to project construction, followed by responsive workforce scaling during construction, and transitioning toward long-term workforce sustainability.

Ultimately, the AKLNG Project presents both a workforce challenge and a considerable opportunity. Strategic workforce investments made in preparation for the project can strengthen Alaska's training system, increase resident participation in industrial employment, and support long-term workforce development across the state's infrastructure, energy, and resource sectors.

Key Takeaways & Actionable Recommendations

Alaska does not have the population size or training capacity to independently supply the workforce required for multiple projects.

Adopt a realistic Alaska Hire strategy by setting achievable workforce participation targets.

Federal apprenticeship requirements constrain the ability of programs to rapidly expand enrollment.

Invest in apprenticeship expansion, by becoming a State Apprenticeship Agency (SAA) and having the potential to double the number of apprentices in some trades.

Many training providers are not at capacity.

Scale short-term training immediately, maximizing Alaska resident hire to anticipate near-term workforce demand.

Existing workforce funding programs often do not address the primary barriers preventing individuals from participating in training.

Prioritize funding toward student support costs, including transportation, housing, and childcare.

Short-term workforce funding cycles limit the ability of training providers to plan and scale programs.

Stabilize workforce funding through multi-year commitments aligned with project timelines.

Part I

Context & Framework

1. Purpose of the 2026 Update

In 2018, the Alaska Department of Labor and Workforce Development (DOL), in conjunction with the Alaska Workforce Investment Board (AWIB), published an initial assessment of Alaska's ability to supply the workforce needed to build and operate the AKLNG project.

Like the 2018 Alaska LNG Gasline Workforce Plan, this document outlines Alaska's current and projected labor needs and details new labor demand projections for the AKLNG project. [4] The analysis has been expanded to consider the broader development environment, including other large-scale projects that generate overlapping workforce demand.

This update includes an assessment of Alaska's current training capacity and identifies gaps between labor demand and supply. The data collected and presented in this report is analyzed to provide recommendations for actionable strategies and investments to scale training capacity and workforce readiness statewide.

1.1 How This Plan Should Be Used

This update is intended to be used as a strategic workforce planning and decision-support tool for policymakers, industry partners, training providers, and workforce development organizations.

First, this report identifies priority occupations, training gaps, and capacity constraints that limit Alaska resident hire. Second, this report supports scenario testing and timing decisions, by detailing current construction timelines and anticipated labor draw for the AKLNG project and other projects. Third, this update includes a detailed analysis of specific occupations needed for these projects and how long it takes to train workers for those roles. Finally, this report serves as a living reference that can be updated and revised as project assumptions, labor market conditions, and training capacity change.

1.2 Key Differences from the 2018 Gasline Workforce Plan

The 2018 Gasline Workforce Plan was developed using the assumptions, timelines, and project definitions available at that time. [4] Since then, both the labor market and the broader infrastructure development landscape in Alaska have evolved.

In the 2018 plan, construction was anticipated to begin as early as 2019, with gas delivery in the mid-2020s. [4][1] As of 2026, the project is now evaluated within a forward-looking development window that requires updated demand modeling and sequencing ahead of a Final Investment Decision (FID).

This update recalibrates the original analysis using current modeled project information and considering the emergence of other large-scale infrastructure and resource development projects competing for the same labor pool.

Additionally, this report incorporates enrollment, completion, and capacity data from training providers statewide, including feedback collected from surveys and outreach to secondary CTE programs, college and universities, apprenticeship programs, regional, technical and vocational training providers, and Alaska Native training and education foundations.

By combining updated quantitative data with qualitative feedback from stakeholders in Alaska's workforce development, this updated report shifts from an initial assessment to a more comprehensive planning tool designed to guide State workforce investment priorities.

2. AKLNG Project Overview

The AKLNG is a proposed large-scale natural gas development system designed to transport North Slope natural gas to a liquefaction and export facility in Southcentral Alaska. This section provides an updated overview of the project's infrastructure components, development context, and construction timeline assumptions used to inform the workforce demand modeling presented in this report. [1][2]

2.1 Project Components and Glenfarne / AGDC Context

The project consists of three primary infrastructure components: gas treatment plant, mainline pipeline, and liquefaction facility.

COMPONENT	LOCATION	FUNCTION
Gas treatment plant	North Slope	CO2 removal and gas conditioning
Mainline pipeline (appx. 800 miles)	North Slope to Nikiski	Gas transportation
Liquefaction facility	Nikiski	LNG processing and export

Figure 2.1 - Infrastructure Elements of the AKLNG Project [1][2]

In March of 2025, Alaska Gasline Development Corporation (AGDC) and the Glenfarne Group formed Glenfarne AKLNG, LLC, a subsidiary that serves as the majority owner and lead developer of the AKLNG project. Under this arrangement, AGDC retained 25% ownership interests in the project, while Glenfarne acquired 75% ownership and assumed responsibility for front-end engineering, design, commercial development, and advancement to a FID. [3]

As of January 2026, Glenfarne announced conditional awards and agreements for pipeline construction and materials supply, gas supply and engineering, procurement, and construction management services for Phase One. [3]

ENTITY	ROLE	STATUS (JAN 2026)
Glenfarne Group	Majority owner and lead developer	Majority owner (75%) and lead developer
AGDC	Minority owner	Minority owner (25%)
Worley	EPCM services	Provisionally selected
Baker Hughes	Equipment supplier and strategic partner	Announced strategic partnership
Danaos Corporation	Shipping partner	Partnership announced
POSCO	International partner	Agreement reported
ExxonMobil	Feed gas supplier	Commercial engagement
Hilcorp Alaska	Feed gas supplier	Commercial engagement

Figure 2.1a - Key Contributors

2.2 Construction and Operations Timelines

Current development plans indicate that Glenfarne is pursuing pipeline construction in two phases.

Phase One focuses on construction of the transmission system and related facilities needed to move natural gas from the North Slope to Southcentral Alaska. Mechanical completion of the main pipeline is expected for 2029, with the first in-state gas delivery expected in the same year. [3]

Phase Two is scheduled to begin following completion of the pipeline transmission system. This phase would enable Alaska natural gas to be liquefied and exported to international markets.

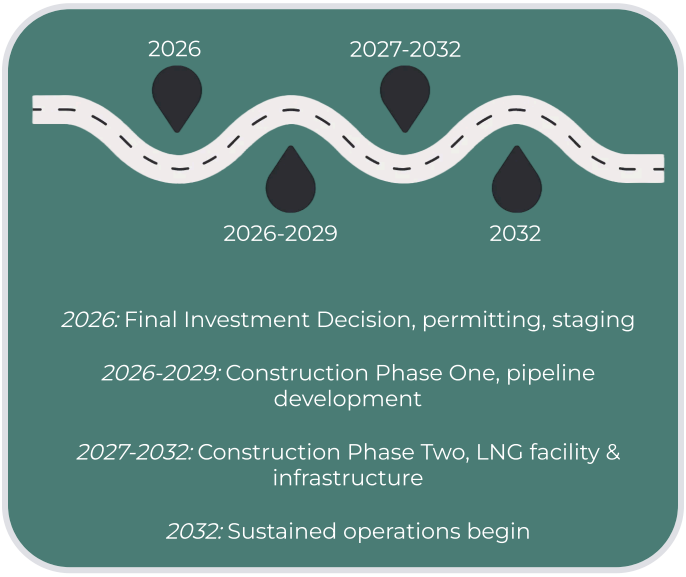

Figure 2.2 - AKLNG Timeline

3. Planning Inputs and Methodology

The methodology used in this study is designed to support a transparent and replicable workforce analysis capable of being updated as project information evolves. The modeling framework emphasizes consistent data sources, clearly documented assumptions and limitations, and a structure that separates workforce demand projections from workforce training capacity analysis.

Separating these analytical components allows workforce demand to be evaluated independently from training pathways, ensuring that multiple education and workforce development strategies can be considered without bias. The analysis distinguishes Alaska's existing workforce conditions from the additional labor demand created by large infrastructure projects.

Using the information available at the time, the 2018 report assumed a single-project, synchronized peak demand model tied to a 2019 construction start. [4] Workforce supply was measured against existing Alaska employment and projected growth and largely considered in isolation from competing projects. This update reflects changes to these assumptions.[1]

This modeling approach is intended to provide a more realistic assessment of Alaska's ability to supply workers for large infrastructure development under current labor market conditions.

3.1 Forecasting and Modeling Approach

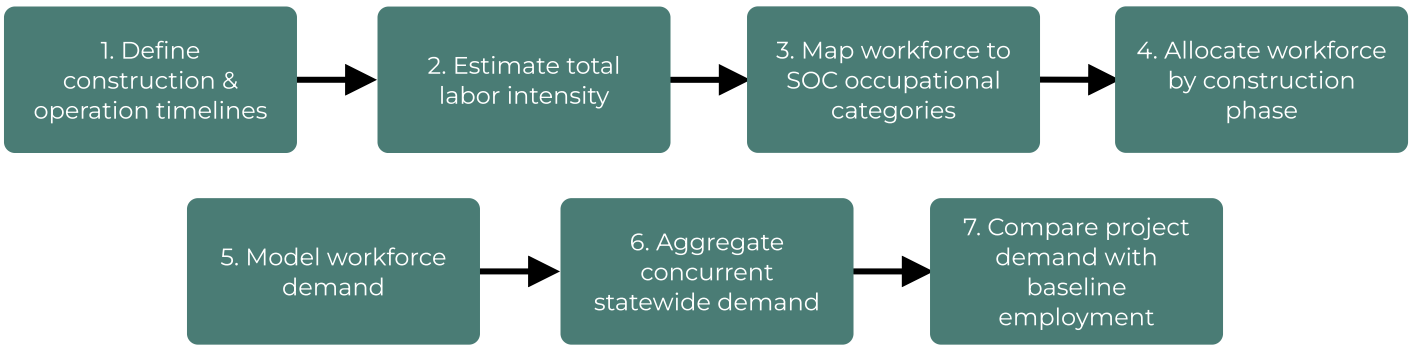

Figure 3.1 - Workforce Modeling Methodology

3.2 Data Source Comparison

Where direct workforce estimates were unavailable, demand was modeled using standardized construction workforce intensity ratios consistent with industry benchmarks, expanding on the comparative benchmarking approach applied in 2018. [4][Appendix E]

DATA SOURCE COMPARISON		
DATA CATEGORY	**2018 WORKFORCE PLAN [4]**	**2026 UPDATE - KEY ENHANCEMENTS**
Baseline labor market data	AK DOL employment, occupational projections, wage data, residency and demographic indicators	More current workforce conditions and demographic insights
Project workforce demand data	Primarily Bechtel Integrated Labor Study with AGDC estimates and Northern Economics inputs	Expansion from single-project to multi-project demand modeling
Cross-industry workforce analysis	McDowell Group cross-industry workforce study	Explicit workforce competition modeling
Occupational mapping	Occupational group-level demand estimates	Increased occupational precision and comparability
Economic context datasets	Construction spending forecasts and economic strategy documents	Improved economic context for demand forecasting
Training capacity data	Review of workforce plans and training provider descriptions	Shift from descriptive capacity review to quantitative capacity evaluation
Stakeholder inputs	Public meetings and qualitative stakeholder feedback	More systematic stakeholder validation
Modeling structure	Scenario based on synchronized AKLNG construction timeline	Introduction of concurrency and peak demand analysis
Workforce intensity assumptions	Project-specific disclosures and labor study inputs	Increased methodological consistency across projects
Demand vs training pathway approach	Demand and training discussion integrated	Pathway-neutral analytical framework
Data transparency and documentation	General documentation of assumptions	Improved transparency and replicability

Figure 3.2 - Data Source Comparison

3.3 Assumptions and Limitations Comparison

The projections presented in this report rely on a set of assumptions regarding project timelines, labor intensity, and workforce composition. These assumptions are based on the best available information at the time of analysis but may evolve as project development progresses.

ASSUMPTIONS			
CATEGORY	**2018 WORKFORCE PLAN [4]**	**2026 UPDATE**	**KEY EVOLUTION**
Project timelines	Synchronized AKLNG schedule (single-project scenario)	Public schedules across multiple projects	Shift to multi-project concurrency modeling
Construction intensity	Bechtel study + project disclosures	Standardized project benchmarks	Improved cross-project comparability
Occupational distribution	Trade groupings from labor study	SOC-level standardized allocation	Greater occupational precision
Construction sequencing	AKLNG phase-driven model	Standard phasing across projects	Consistent cross-sector methodology
Labor substitution	Not explicitly addressed	Limited substitution assumed	Explicit recognition of trade specialization
LIMITATIONS			
CATEGORY	**2018 WORKFORCE PLAN [4]**	**2026 UPDATE**	**KEY EVOLUTION**
Disclosure gaps	Relied on disclosed workforce studies	Proxy intensity benchmarks applied	Transparent gap-filling methodology
Schedule variability	Sensitive to AKLNG timing	Multi-project scope and sequencing shifts	Recognition of concurrency risk
Training capacity constraints	Descriptive review only	Capacity mapped and evaluated separately	Structured scalability assessment

Figure 3.3 - Assumptions & Limitations

4. Workforce Challenge Context

Alaska's workforce challenge is defined by:

- An aging workforce
- A relatively small base of construction and extraction employment
- Geographic constraints that compress activity into seasonal peaks
- Overlapping project schedules concentrated in identical occupational groups

These structural factors frame the workforce gap analysis and training capacity evaluation presented in subsequent sections.

4.1 Aging Workforce Trends

As of late 2025, Alaska's unemployment rate remained moderate near five percent. [26][7] However, Alaska enters the AKLNG construction window with an older and aging workforce, especially in key construction and trade occupations that the project will rely on most. The 2018 plan noted that about 30 percent of workers were age 50 or older, which means that a significant portion were within 15 years of retirement. [4] The plan stated that replacement would "be significant because of an aging workforce," even before accounting for other competing infrastructure projects. [4][7][13][14][15]

This remains accurate. Current projections by the Department of Labor highlight that construction trades already face high replacement needs because many experienced workers are approaching retirement, even without the additional demand that a large AKLNG project would create. [9][10]

The aging trend is particularly pronounced in the occupations central to the AKLNG construction. For several of the top construction occupations in Alaska, roughly one third to nearly half of resident workers are age 45 or older, and substantial shares are over 50. [14] [21]

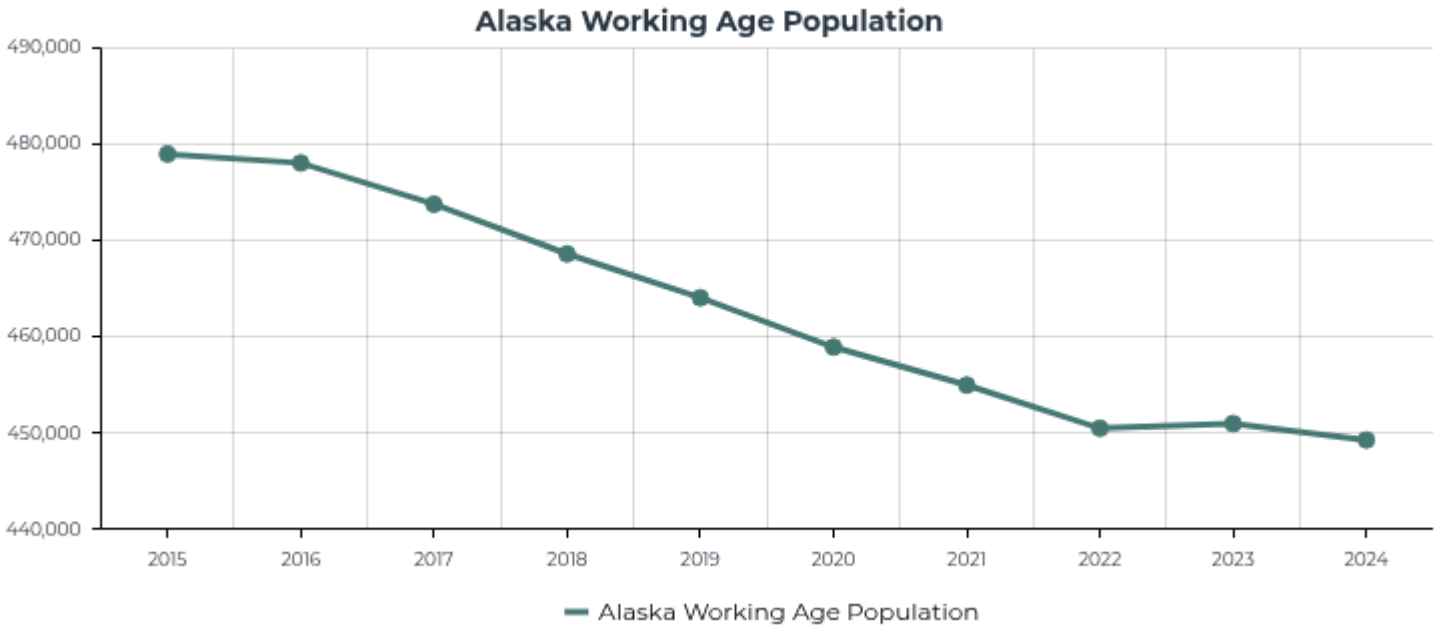

Figure 4.1 - Alaska Working Age Population Decline [78]

These patterns illustrate that the majority of projected workforce openings in construction trades are driven by replacement demand rather than new job growth.

The aging workforce creates two overlapping pressures during the AKLNG construction period.

Employers must simultaneously fill new positions generated by project activity while also replacing experienced workers retiring from the same occupations across Alaska's broader construction sector.

Combined demand from new projects and retirements is projected to generate approximately 1,500 to 1,900 construction job openings per year through the late 2020s and early 2030s. [9][10] This level of turnover already challenges Alaska's existing training and recruitment systems.

The 2018 Gasline Workforce Plan assumed that proactive training expansion could position Alaska to meet both the demand for replacement workers and project-driven demand. [4] However, replacement needs have materialized faster than anticipated, increasing non-resident hire in certain construction and oil-support industries.

For AKLNG, trends indicate relying on the existing pool of experienced Alaska journey workers will not be sufficient. A large portion of the workforce will have to come from:

- New entrants and mid-career transitions
- Upskilled workers advancing through training pipelines
- Strategic use of nonresident labor [11]

This analysis examines statewide workforce training capacity, program timelines, and completion outcomes to establish a realistic baseline of resident workforce production and identify opportunities to increase Alaska resident hire wherever possible.

4.2 Alaska Labor Supply Constraints

Alaska's overall workforce is smaller and older than it was a decade ago. The Workforce 2030 initiative notes that the number of working age residents has fallen by roughly 30,000 over the past decade, and that Alaska has experienced an unprecedented 11-year streak of net migration losses, with more people leaving the state than arriving each year. [15] Labor force participation has declined and a high share of recent high school graduates leave Alaska and do not return, further eroding the in-state pipeline of new workers.

With fewer available residents, employers have increasingly relied on nonresident workers to staff construction and other project-based industries. In 2023, the Department of Labor published a report that stated nonresidents accounted for approximately 23 percent of Alaska's total workforce. That number is the highest share in three decades, with especially sharp increases in construction, oil and gas, and health care. [11]

Construction saw a 24 percent jump in nonresident workers from 2022 to 2023, and the Kenai Peninsula's nonresident construction workforce nearly doubled. State economists attribute this to major infrastructure and oil and gas projects and to the inability of employers to find enough qualified residents. [11] The 2018 Gasline Workforce Plan concluded that, even under less aggressive schedule assumptions, project labor demand would outstrip available skilled residents. Most related industries already rely on nonresidents and will continue to face resident shortages as they contend with aging workforces and competing project activity. [4]

Looking ahead, statewide planning efforts estimate that Alaska may need roughly 30,000 additional workers by 2030 to meet anticipated infrastructure and resource development activity, even before accounting for the AKLNG Project. [15] In an environment where the working-age population is shrinking and migration losses continue, competition for skilled workers is expected to intensify.

For AKLNG, this means that without early and coordinated investment in training and retention, the project will draw heavily on this growing nonresident labor pool to meet Glenfarne's compressed schedule, especially in high skill trades and technical roles.

OCCUPATION	ANNUAL NET GROWTH	ANNUAL REPLACEMENT DEMAND	TOTAL ANNUAL OPENINGS
Construction & Other Laborers	46	915	961
Truck Drivers	29	282	311
Heavy Equipment	45	251	296
Electricians	21	152	173
Plumbers & Pipefitters	14	103	117
Construction Managers	11	82	93
Welders	12	76	88
Civil & Mechanical Engineers	13	86	99
Structural Iron & Steel Workers	1	7	8

Figure 4.2 - Replacement vs Growth – Key Construction Trades (2022–2032) [9]

4.3 Geographic and Infrastructure Constraints

The geographic scale of the AKLNG Project introduces additional logistical and workforce planning challenges. The proposed mainline would extend more than 800 miles across largely remote areas before connecting to the liquefaction facilities in Nikiski. [4] The route passes through the Brooks Range, the Alaska Range, Cook Inlet, and numerous waterways requiring engineered crossings. [4] Portions of the mainline traverse areas characterized by permafrost, seasonally frozen ground, muskeg, and tundra, and a number of segments are located within regions of notable seismic activity. [4]

Project development will require coordination across multiple regulatory jurisdictions and compliance frameworks. Permitting processes, seasonal construction windows related to marine and wildlife considerations, engagement with affected communities, and environmental protection requirements will all carry influence in planning and execution. Effective coordination among agencies, stakeholders, and review authorities across the state will be an essential component of implementation.

Geographic conditions also influence infrastructure development in remote areas. Access along portions of the corridor is constrained by unforgiving terrain, reliably harsh weather, limited transportation networks, and seasonal limitations. Construction will necessitate the establishment of staging areas, worker accommodations, material laydown yards, quarry sources, and coordinated transportation systems to move equipment and supplies. Workforce availability and scheduling will need to be managed in consideration of existing employment and engagement patterns in rural and regional communities and in deference to cultural and subsistence norms.

Supporting a peak construction workforce in remote locations requires attention to housing, medical response capacity, utilities, fuel supply, and power generation. Planning will need to account for transportation of necessities (i.e. materials, fuel, food, amenities, etc.) to support both construction activities and personnel.

Overall, the geographic and infrastructure constraints emphasize the challenges of orchestrating remote logistics across a vast landscape unified in its difficulty of access and maintenance.

4.4 Overlapping Projects

To understand the potential scale of workforce demand associated with large infrastructure projects, it is helpful to compare projected peak workforce needs with Alaska's existing construction workforce.

CONCURRENT CONSTRUCTION BASE VS MODELED STATEWIDE PEAK Q3 2028	
MEASURE	**WORKERS**
Current Alaska Construction Employment (Q3 2025)	21,300 [8]
Estimated Projects Workforce Need (Peak-Q3 2028)	8,670
Total Projected Alaska Construction Employment (Q3 2028)	29,970

Figure 4.4 - Current Construction Base vs Modeled Statewide Peak

Under the modeled concurrency scenario, peak project workforce demand could equal roughly a quarter of Alaska's entire construction workforce. While not all construction workers would be employed on these projects simultaneously, this comparison illustrates the scale of labor demand relative to the state's existing workforce base. [8]

Conclusion

The context outlined in Part I highlights the structural conditions that shape Alaska's ability to supply the workforce required for the AKLNG Project and other major infrastructure developments. Changes in project timelines, evolving commercial partnerships, and the emergence of competing projects have significantly altered the labor market environment since the 2018 Gasline Workforce Plan. [4] Alaska faces broader workforce pressures including an aging skilled trades workforce, a shrinking working-age population, and increasing reliance on nonresident labor. Together, these factors underscore the importance of updated workforce modeling and coordinated planning across industry, government, and training providers to better align Alaska's workforce development system with the scale and timing of potential project demand.

Part II

Workforce Demand

5. AKLNG Workforce Demand Forecast

Workforce demand for the AKLNG Project changes as construction moves from pipeline installation to facility construction and eventually to long-term operations.

Because the project is built in phases, workforce demand rises and falls at different points in the construction schedule rather than occurring as a single peak. [1][3][24]

The figures in this section show the estimated size and timing of workforce demand during each phase of the project. They also highlight the occupations most involved in pipeline construction, facility construction, and long-term operations.

5.1 Construction Phase Workforce Demand

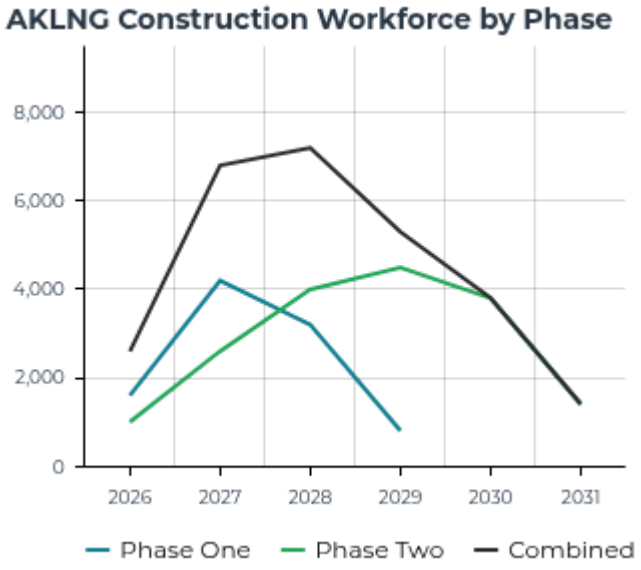

Figure 5.1- AKLNG Construction Workforce Demand by Phase [Appendix E]

Phase 1 - Pipeline Development

The first phase of development focuses on construction of the mainline pipeline and associated infrastructure. Workforce demand increases as construction spreads mobilize and work progresses along the pipeline route.

Peak workforce during this phase is estimated at approximately 4,200 workers, reflecting simultaneous activity across multiple construction spreads along the pipeline corridor. [Appendix E][1][3]

Key occupations during pipeline construction include construction laborers, heavy equipment operators, welders, pipefitters, and other heavy civil construction trades. These roles are essential for different stages of the project, from preparing the site and operating large machinery, to assembling, welding, and installing pipeline components. Together, these skilled workers ensure that the pipeline is built safely, efficiently, and according to engineering specifications.

Phase 2 - AKLNG Facility and Associated Infrastructure

The second phase of development focuses on construction of the liquefaction facility and related infrastructure. Compared with pipeline construction, this phase requires more mechanical, electrical, and instrumentation work associated with large industrial systems. [1][3]

Peak workforce during this phase is estimated at approximately 4,500 workers, reflecting the labor required to install major equipment, connect facility systems, and prepare the plant for commissioning. [Appendix E][1][3]

Sustained Operations

After construction activities are completed, the AKLNG Project transitions to sustained operations staffing.

Operations employment levels are smaller than peak construction employment and represent stable, year-round industrial jobs concentrated in facility operations, maintenance, engineering, and supervisory roles.

Operations employment will be associated primarily with the gas treatment plant on the North Slope, the liquefaction facility in Nikiski, and pipeline monitoring and maintenance activities. These roles support the ongoing functioning of the system, ensuring that gas processing, liquefaction, and pipeline operations are conducted safely, efficiently, and in accordance with operational standards.

METRIC	PHASE 1 PIPELINE	PHASE 2 FACILITY	SUSTAINED OPERATIONS
Modeled peak workforce	4,200	4,500	900
Modeled peak	Q3 2027	Q2 2029	Post-commisioning
Construction duration	2026-2029	2027-2032	Long-term
Workforce intensity type	Heavy civil, welding-intensive	Mechanical, electrical-intensive	Technical, maintenance, supervisory

Figure 5.1a - AKLNG Workforce Summary by Phase [Appendix E][1][3]

5.2 Workforce Needs by Occupation

The 2018 Gasline Workforce Plan identified several construction trades expected to experience the highest demand during peak project construction. These included construction laborers, heavy equipment operators, welders, electricians, and plumbers and pipefitters. These occupations continue to represent the core workforce required to construct the pipeline and associated AKLNG infrastructure. [4]

Many of these occupations are common across large infrastructure and resource development projects.

If multiple projects move forward at the same time, they may draw workers from the same occupational groups. This overlap can increase demand for certain trades and affect the availability of qualified workers during peak construction periods.

Understanding where these overlaps may occur is important for workforce planning. The following section examines how workforce demand from AKLNG may interact with other major projects through a statewide project concurrency analysis.

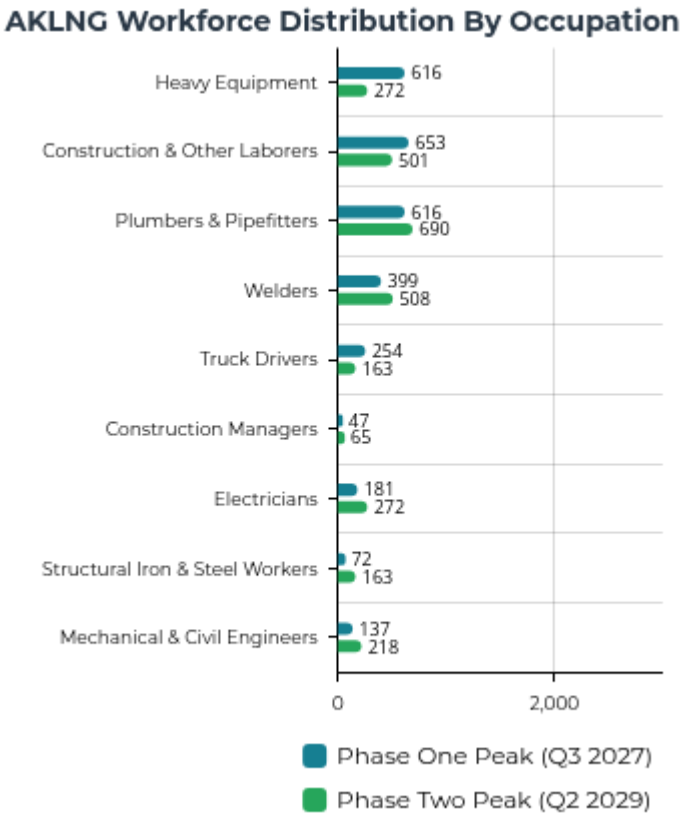

Figure 5.2 - AKLNG Overall Workforce Distribution by Occupation (Pipeline Construction) [Appendix E]

6. Competing Project Workforce Demand

This section focuses on projects that are most likely to influence workforce demand during the AKLNG construction period. The analysis does not attempt to capture every potential development project in Alaska. Instead, it highlights projects with the greatest potential to affect workforce availability based on their size, construction intensity, development timelines, and overlap in occupational demand.

Projects included in the concurrency model include:

- Donlin Gold
- Graphite One (Alaska Operations)
- Ambler Access Project
- Port of Nome Expansion (USACE)
- Barrow Coastal Erosion Protection Project (USACE)
- West Susitna Road Access Project (22-mile and 78.5-mile scenarios)

6.1 Overview of Major Projects Included in Concurrency Modeling

Donlin Gold
Primary Construction Phase: 2027–2031

Donlin Gold is one of the largest undeveloped gold deposits in North America and has undergone extensive environmental review and development planning. Located in Southwest Alaska, the project includes an open-pit mine, processing plant, access infrastructure, an airstrip, a pipeline corridor, and supporting facilities. [31][32][33]

Construction would occur in a remote, camp-based environment and includes heavy civil work, process facility installation, power generation infrastructure, and logistics systems. Seasonal access conditions are expected to concentrate construction activity during summer months.

Project Peak: Q3 2029

Public project materials indicate peak construction employment in the several-thousand-worker range and long-term operations employment exceeding one thousand positions. [33] For modeling purposes, peak construction employment was estimated at approximately 2,490 workers and distributed across a multi-year construction schedule consistent with publicly available project information. [Appendix E][33]

Workforce demand for the project is concentrated in heavy civil and industrial trades, including heavy equipment operators, welders, mechanics, construction laborers, and process facility trades.

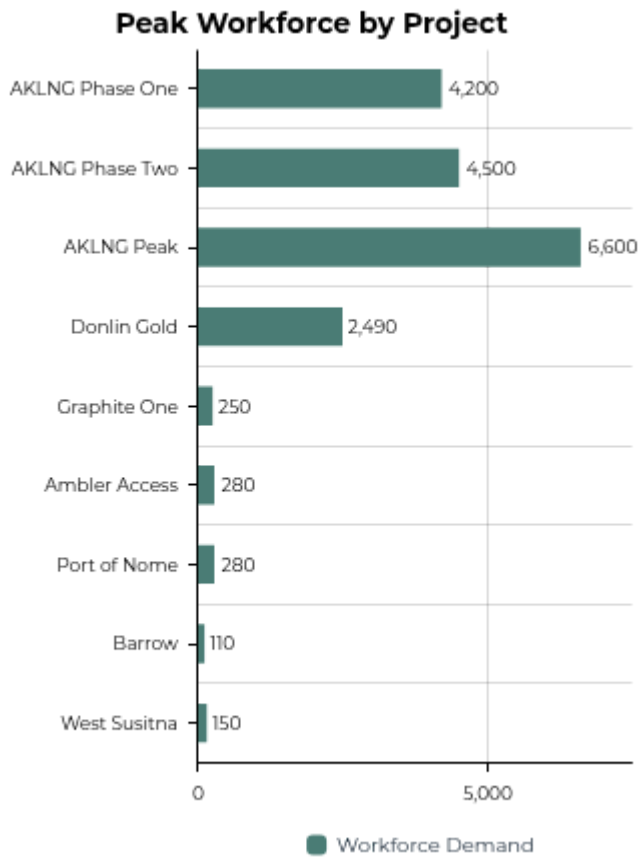

Figure 6.1 - Peak Workforce by Project [31][33][34][35][37][39][41][42][43]

Graphite One (Alaska Operations)
Primary Construction Phase: 2027–2029

Graphite One has advanced feasibility and permitting efforts for its graphite mining development near Nome and has been identified as part of federal critical mineral initiatives. The Alaska component of the project includes mining operations and associated processing infrastructure. [34][35][36]

Construction would involve mine development, materials handling infrastructure, processing facility installation, and supporting logistics systems. Construction schedules are expected to reflect regional climate conditions and seasonal work windows.

Project Peak: Q3 2028

Modeled peak construction employment is estimated at approximately 250 workers, with long-term operations employment expected to be similar in scale. [Appendix E][34][35]

Workforce demand includes mining development crews, materials handling personnel, and industrial construction trades.

Ambler Access Project
Primary Construction Phase: 2027–2030

The Ambler Access Project proposes construction of a 211-mile industrial access corridor connecting the Dalton Highway to the Ambler Mining District. Construction would require extended heavy civil activity across remote terrain, including road construction, bridge installation, river crossings, and logistics staging. [37][38]

Project Peak: Q3 2030

Construction is expected to occur over several seasons. Modeled peak construction employment is estimated at approximately 280 workers. [Appendix E][37][38]

Workforce demand includes heavy equipment operators, earthmoving crews, mechanics, survey personnel, and supervisory roles associated with large transportation infrastructure projects.

Port of Nome Expansion (USACE)
Primary Construction Phase: 2026–2029

The Port of Nome Expansion is a federally authorized marine infrastructure project that includes dredging, causeway extension, dock construction, and navigation improvements. Construction activities are phased and constrained by Arctic marine construction seasons. [39][40]

Project Peak: Q3 2028

Modeled peak construction employment is estimated at approximately 280 workers during the highest activity period. [Appendix E][39][40]

Workforce demand is concentrated in marine construction trades, dredging crews, and heavy civil construction support roles.

Barrow Coastal Erosion Protection Project (USACE)
Primary Construction Phase: 2026–2029

The Barrow Coastal Erosion Protection Project is a multi-phase, coastal protection effort designed to reinforce shoreline infrastructure in Utqiaġvik. Construction activities include revetment placement, rock armoring, and coastal stabilization. [41][42]

Construction occurs during limited Arctic construction seasons.

Project Peak: Q4 2027

Modeled peak construction employment is estimated at approximately 110 workers. [Appendix E][41][42]
Workforce demand includes heavy equipment operators, rock placement crews, and marine logistics personnel.

West Susitna Road Access Project
Primary Construction Phase: 2027–2029

The West Susitna corridor includes proposed 22-mile and 78.5-mile road alignments west of the Susitna River. The project is evaluated under two development scenarios.

Construction would involve rural heavy civil work, including earthmoving, bridge installation, drainage systems, and materials hauling. [43][44]

Project Peak: Q3 2028

Modeled peak construction employment is estimated at approximately 150 workers. [Appendix E][43][44]

Workforce demand for the project is concentrated in heavy civil construction trades.

6.2 Statewide Workforce Concurrency and Labor Bottlenecks

During the modeled peak construction period, workforce demand is concentrated in a relatively small number of construction occupations.

The key construction trades highlighted in this report include:

- Heavy equipment operators
- Construction laborers
- Welders
- Electricians
- Pipefitters / plumbers
- Mechanics
- Construction management
- Civil and mechanical engineers
- Structural iron and steel workers

Figure 6.2 - Aerial View of Utqiaġvik

Understanding when this demand occurs and which occupations are most affected helps inform workforce planning and highlights the importance of evaluating Alaska's workforce pipeline and training capacity.

Conclusion

The workforce demand analysis presented in Part II highlights the scale and timing of labor required to construct the AKLNG Project and other major infrastructure developments across Alaska. AKLNG alone would generate substantial construction employment across multiple phases of development.

When other large infrastructure and resource development projects are considered alongside AKLNG, the potential for overlapping construction activity becomes an important workforce planning consideration.

Analyzing how workforce demand from multiple projects may overlap helps provide context for evaluating Alaska's workforce training capacity and the state's ability to prepare workers for large-scale project development. The following sections examine Alaska's training system and workforce pipeline to better understand how the state can respond to this potential demand.

Part III

Training Capacity

7. Alaska Training System Capacity

Alaska has a robust system of CTE at both secondary and post-secondary levels. Training capacity associated with the AKLNG Project spans multiple, complementary systems across Alaska's workforce pipeline: colleges and universities, apprenticeships, regional, technical and vocational institutions, Alaska Native training and education foundations, and secondary education.

Together, these providers form an interconnected ecosystem designed to scale capacity in response to major capital projects while supporting long-term workforce sustainability across the state.

Findings in this section draw on survey responses collected between January 27 and February 20, 2026, from training providers and workforce organizations across Alaska. Response rates varied by sector, and results should be interpreted as directional indicators of statewide training capacity rather than a comprehensive inventory of all programs. Survey findings can be found in Appendix C.

7.1 Inventory of Training Providers

The training providers included in this study represent several distinct parts of Alaska's workforce development system. Although they differ in structure, scale, and mission, each contributes to workforce preparation relevant to large infrastructure development.

Figure 7.1 depicts a statewide view of the training providers that were surveyed for this update. Not included in the figure are each of the secondary school districts that were surveyed.

Alaska Native Training and Education Foundations

For purposes of this report, the Alaska Native entities surveyed were the education foundations and affiliated workforce organizations associated with Alaska Native regional corporations established under the Alaska Native Claims Settlement Act (ANCSA). [51]

Within the workforce system, these entities primarily function as workforce intermediaries rather than large-scale direct technical training providers. Their activities focus on scholarship support, postsecondary funding, apprenticeship sponsorship, workforce readiness programming, employment placement assistance, and coordination with vocational, union, and university training partners. Their role is centered on increasing access to education and employment pathways for regional shareholders and tribal members.

Registered Apprenticeship Programs

Registered apprenticeship programs surveyed for this report operate under standards approved by the Alaska Department of Labor and Workforce Development and the U.S. Department of Labor. These programs are administered through joint labor-management training, union-affiliated Joint Apprenticeship and Training Committees (JATCs), and employer-sponsored apprenticeship systems.

Training centers are primarily located in Anchorage, Fairbanks, Juneau, and the Mat-Su region. While physical training facilities are regionally concentrated, apprentices are assigned statewide to construction projects, including remote and camp-based worksites.

Trades represented include electrical, plumbing and pipefitting, operating engineers, laborers, ironworkers, carpenters and millwrights, boilermakers, insulators, painters and allied trades, and related craft programs. In Alaska, apprenticeship remains one of the primary long-term workforce development pathways for the skilled construction trades.

Figure 7.1 - Alaska Workforce Training Providers
[Appendix E]

State apprenticeship data indicates that Alaska's apprenticeship pipeline has grown in recent years. Active apprenticeships increased to more than 2,400 active apprentices statewide by 2025–2026. [46] However, because apprenticeship programs typically require two to five years to complete, the ability of this pathway to respond rapidly to short-term project demand remains limited.

Regional, Vocational and Technical Training Providers

Regional, vocational and technical training providers include state-operated technical centers, nonprofit workforce development organizations, tribal training centers, and private occupational training providers. These institutions are distributed across Alaska's regional hubs and serve both local residents and trainees from surrounding rural communities.

These providers generally deliver short-duration, industry-aligned training programs that emphasize hands-on technical instruction. Common offerings include commercial driver's license training, heavy equipment operation, welding and fabrication, diesel mechanics, maritime and industrial safety certifications, and pre-apprenticeship workforce readiness programs. Training is often designed to respond to near-term labor market demand and to provide entry pathways into registered apprenticeship, employment, or postsecondary technical programs.

Colleges and Universities

The University of Alaska system represents the largest public training infrastructure in the state. The system includes three primary universities located in Anchorage, Fairbanks, and Juneau, along with community campuses in Homer, Soldotna, Kodiak, Palmer, Valdez, Kotzebue, Nome, Bethel, Dillingham, and Sitka. [72]

Additional institutions included in this study include Alaska Pacific University in Anchorage [73], Ilisagvik College in Utqiaġvik [74], Charter College in Anchorage [76], and Alaska Career College in Anchorage. [77]

These institutions provide associate, bachelor's, and certificate programs aligned with industrial and infrastructure workforce needs.

Enrollment data provided through the survey indicate that one large post-secondary provider reported more than 1,200 students enrolled in AKLNG-relevant programs, with the largest concentration in project and construction management programs, followed by welding, electrical engineering, and mechanical technology pathways. This distribution suggests that Alaska's post-secondary system supports both technical workforce preparation and supervisory and management roles associated with large infrastructure development.

Secondary School Districts

Alaska's fifty-four public school districts provide CTE programming at the secondary level under the oversight of the Alaska Department of Education and Early Development. Districts range from large urban systems such as Anchorage and Fairbanks North Star Borough to small rural and regional education attendance areas serving remote communities. [75]

CTE programming varies by district size and facility capacity but commonly includes construction trades exploration, welding and shop programs, automotive fundamentals, maritime and regional industry coursework, and dual-credit technical pathways aligned with postsecondary institutions. Secondary CTE programs represent the earliest stage of the workforce pipeline and influence long-term entry into vocational, apprenticeship, and postsecondary technical education pathways.

Survey responses indicate that participation in dual-credit technical pathways varies significantly across districts. Some programs report participation rates as low as 10–25 percent of eligible students, suggesting that opportunities exist to expand the transition from secondary CTE programs into post-secondary technical training.

7.2 Capacity by Occupation

Survey responses indicate that workforce training capacity for AKLNG–relevant occupations is concentrated in a core group of construction and industrial trades. Programs most frequently support occupations in welding, electrical work, carpentry, plumbing, mechanics, and transportation-related training such as commercial driving and heavy equipment operation.

Among surveyed providers, welding and electrical training were the most commonly reported program areas. These trades are offered across multiple training pathways, including apprenticeship programs, technical and vocational institutions, and post-secondary programs. Because these occupations require specialized shop space and equipment, training capacity is typically structured around fixed classroom and lab sizes.

Commercial driver training and equipment operation were also widely represented in the survey responses. These programs are offered through several training providers and can often be delivered in shorter course formats, allowing for more flexible enrollment capacity.

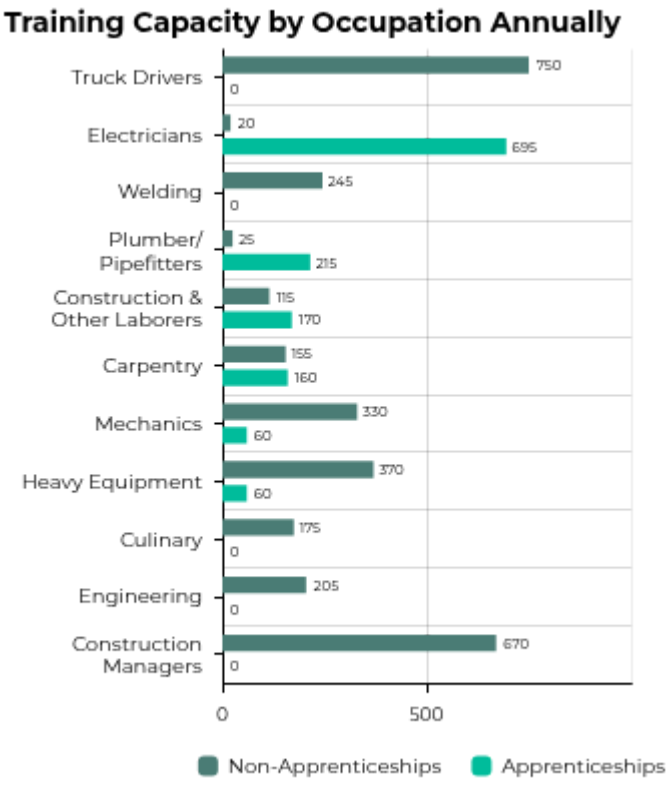

Figure 7.2 - Training Capacity by Occupation [Appendix E]

Programs in the skilled trades including carpentry, plumbing, and industrial maintenance or mechanics programs, were also reported across several institutions. These pathways are commonly delivered through apprenticeship systems or technical training providers and follow both short-term and structured multi-year training pathways.

Several colleges and universities reported programs related to applied science and engineering. These programs support technical occupations associated with industrial facility operations and advanced construction environments. The number of institutions offering these programs is more limited compared to the construction trades.

The survey results suggest that Alaska's training system supports a broad range of occupations relevant to AKLNG construction and operations. Capacity is concentrated in a limited number of core trades and varies by occupation depending on the facilities, equipment, and instructors required to deliver hands-on training.

> "Workforce training must be designed with a clear objective: employment, not training for its own sake. Alaska must prioritize full funding for high-performing trade schools. Doing so will open the floodgates for Alaskans to access the well-compensated jobs associated with upcoming development projects."
> *– MAPTS*

7.3 Training Participation and Output

Enrollment and completion levels in AKLNG-relevant training programs remain relatively modest compared to the workforce demand anticipated for large infrastructure projects.

Several providers indicated that current enrollment levels do not always fully utilize available program capacity. Technical and vocational providers reported operating at approximately 60–80 percent of capacity, while some regional training providers estimated utilization closer to 50–70 percent. These findings suggest that participation, access, and support barriers may limit workforce pipeline throughput.

Completion trends reflect the structure of these pathways. Short-term workforce training programs and introductory technical courses provided by regional, vocational, and technical training providers generally produce a steady number of graduates each year. Multi-year apprenticeship programs generate smaller annual completion totals because participants remain in the pipeline for several years.

This means that annual completion counts represent only a portion of the total number of individuals progressing through the training pipeline.

Providers also identified barriers that affect enrollment and completion. These included housing and travel costs for rural students, limited instructor availability, and the cost of maintaining specialized training facilities and equipment.

At the secondary level, high school CTE programs provide an early entry point into construction and industrial career pathways. Alaska's secondary education system represents the first stage of the workforce pipeline, with approximately 7,500–8,000 students graduating from Alaska high schools each year, forming the primary pool of new entrants into post-secondary training, apprenticeships, and the workforce. [75]

Overall, the survey results suggest that Alaska maintains an active but relatively narrow training pipeline for many of the occupations relevant to AKLNG construction. While programs across the state continue to produce new workers each year, current enrollment and completion levels remain below what would be required to meet workforce demand associated with large concurrent infrastructure projects.

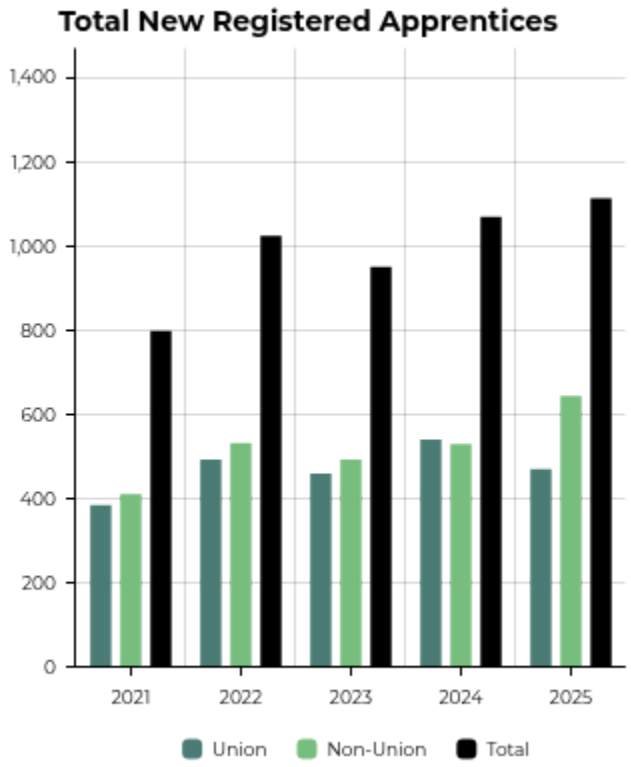

Figure 7.3 - New Entrant Apprentices by Year 2021-2025 [Appendix E]

7.4 Geographic Access Considerations

Geographic access is a significant consideration in aligning training capacity with workforce demand.

Alaska's sheer geographical scope, limited road system, and reliance on air and marine transportation create barriers to traditional training delivery models. Participation in career and technical education and training often requires extended travel, temporary relocation, and additional housing support.

In response, Alaska's training network has evolved to incorporate distributed and hybrid delivery models. Mobile training labs, short-term intensives, and blended online instruction are increasingly used to bring credential-bearing coursework to rural populations.

Collaboration among school districts, tribal organizations, apprenticeship sponsors, and industry improves localized recruitment and the development of both pre-apprenticeship and technical training programs that help reduce barriers to entering skilled trades careers.

Scaling workforce development for a project of this magnitude will require complex coordination around housing capacity, travel stipends, seasonal scheduling, and infrastructure investments to ensure access across regions while maintaining consistent training standards statewide.

8. Training System Barriers and Constraints

While Alaska maintains a well-established and collaborative workforce training ecosystem, projected workforce demand associated with the AKLNG Project is expected to exceed current training system output. This challenge is driven by capacity, access and coordination factors related to preparing a workforce for a large, multi-year infrastructure project across Alaska's vast and geographically dispersed communities.

For this analysis:

Barriers are factors that make it harder for individuals to enroll in, complete, or access training programs.

Constraints refer to broader system limitations that affect how quickly training programs can expand to meet peak workforce demand. These include challenges related to workforce pathways, training facilities, geographic access, funding, instructor availability, and coordination among training providers and industry partners.

Understanding these issues helps identify targeted investments, improve workforce participation, and support Alaska hire opportunities for AKLNG and other major projects.

8.1 Instructor Constraints

Survey responses from training providers across Alaska identified instructor availability and staffing capacity as key constraints on expanding training programs.

Many programs rely on instructors who are experienced industry professionals with current certifications and field experience.

Providers reported that recruiting and retaining these instructors can be difficult, particularly when industry wages exceed those offered in training roles. This challenge was noted across several program areas, including welding, electrical training, heavy equipment operation, diesel mechanics, and commercial driver training.

Staffing constraints also extend beyond instructors to include program coordinators, administrative staff, and support personnel responsible for scheduling, compliance, and student services. In apprenticeship programs, the availability of journey-level workers to supervise apprentices can further limit the number of apprentices employers are able to sponsor.

8.2 Facility and Equipment Constraints

The majority of training providers report that limited space, aging infrastructure, and shared training environments can restrict scheduling flexibility and slow cohort expansion.

Many programs supporting AKLNG-related jobs require dedicated shop space, training yards, simulators, and industry-grade equipment to deliver hands-on instruction. These requirements can limit enrollment and reduce the frequency of course offerings.

The geographic distribution of training facilities also affects access. While regional training centers and technical campuses provide important infrastructure across the state, specialized facilities are often concentrated in larger population centers. Participants from rural or off-road communities may need to travel to attend hands-on training, increasing costs and creating scheduling challenges that can affect enrollment and completion.

8.3 Housing and Support Service Barriers

Housing availability and access to support services are important factors affecting training participation and completion across Alaska's workforce development system. Communities experiencing increased construction activity or seasonal tourism may face additional pressure on already limited housing supply.

Costs associated with travel, relocation, and temporary housing may also reduce participation and increase the risk of program withdrawal. Several providers noted that trainees traveling from rural or off-road communities may require extended stays near training centers. Without adequate housing assistance or travel support, participation in multi-week or multi-month training programs may be difficult.

Additional support needs include childcare, transportation assistance, career counseling, academic support, and case management services that help trainees complete programs.

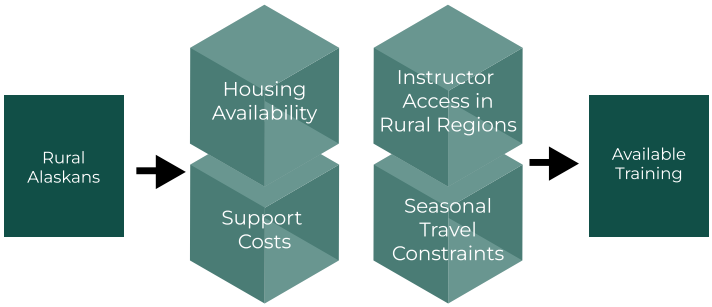

Figure 8.3 - Barriers Associated with Geographical Access

8.4 Funding Constraints

Training providers report that funding stability is another factor affecting program scalability. Many programs rely on a mix of state funding, federal grants, tuition revenue, industry support, and competitive funding sources that can change from year to year. This variability can limit long-term planning, slow program expansion, and create uncertainty around instructor hiring, equipment purchases, and course scheduling.

Providers also reported that aligning funding cycles with workforce demand can be challenging. Grant timelines, procurement requirements, and administrative processes may delay program expansion even when demand for training increases.

During periods of concurrent project development, demand for training may increase rapidly while funding and administrative capacity remain fixed, limiting the ability of programs to scale quickly.

8.5 Pathway-Specific Scaling Constraints

Workforce development pathways differ in how quickly they can expand to meet workforce demand.

Across all pathways, survey respondents noted that facility capacity, instructor availability, and geographic access to training can affect participation. As multiple projects advance statewide, competition for trainees, instructors, and training capacity may increase, making coordination among workforce providers and industry partners increasingly important.

TRAINING PATHWAY	ROLE IN THE WORKFORCE	KEY SCALING CONSTRAINTS (SURVEY FINDINGS)
Secondary CTE Programs	Introduce students to construction & technical careers	Limited instructors, specialized equipment, & trade coursework.
University, College & Technical Training	Provide hands-on training for trades (welding, electrical, mechanics, & transportation)	Qualified instructor availability, expansion constrained by lab space, specialized equipment
Registered Apprenticeships	Primary pathway for many construction trades	Growth tied to employer participation & availability of journey-level workers to supervise apprentices

Figure 8.5 - Pathway Specific Scaling Constraints

Conclusion

Part III highlights the structure, capacity, and operational realities of Alaska's workforce training system as it relates to preparing workers for large infrastructure development. Survey findings indicate that current training output remains modest relative to the scale of potential workforce demand, and expansion is influenced by several structural constraints including instructor availability, specialized training facilities, housing and travel barriers for rural participants, and the variability of program funding. Efforts to prioritize funding toward student support costs would positively impact expansion.

While the system demonstrates the capability to produce skilled workers across multiple pathways, the pace and scale at which programs can expand will depend on coordinated investment, improved access, and sustained collaboration among training providers, industry partners, and workforce development organizations statewide.

Part IV

Gap Analysis & Options

9. Workforce Gap Analysis

This analysis compares projected project-driven demand with current statewide employment levels, annual occupational openings, and estimated training pipeline output across key occupations. This approach provides a more realistic view of workforce feasibility by recognizing that new trainees enter occupations that already experience ongoing demand from Alaska's economy. This section identifies where workforce gaps are most likely to occur, which occupations face the greatest pressure during peak project concurrency, and how training capacity, labor mobility, and project timing influence Alaska's ability to meet workforce needs.

9.1 Statewide Current Demand and Project Demand

Workforce pressure is driven not only by the Alaska LNG Project itself, but by the cumulative effect of multiple large projects drawing from the same limited labor pool.

A useful way to assess workforce feasibility is to compare four conditions for each key occupation:

1. Current statewide demand, reflecting existing employment and routine replacement demand already present in Alaska's economy
2. Project demand, representing additional project-driven workforce requirements during peak construction periods
3. Total projected demand, combining baseline economic activity with project workforce requirements
4. Training pipeline output, representing the maximum capacity number of workers Alaska's workforce development system can produce each year

"Most entry/mid-level labor positions require some level of training to work. The barriers that we have noted within the Calista region shareholder population include basics (Alaska Driver's license, if required--not many villages have roads or vehicles), basic HS diploma completion to 'qualify' for trainings (many current adults did not graduate), cost of training & travel to training."
-Calista Education & Culture for Calista Corporation

This comparison provides a more accurate picture than examining project demand alone. Alaska's training system is not producing workers into an empty labor market. New graduates and trainees enter occupations that already experience ongoing demand from existing employers across the state.

The analysis shows that the largest workforce gaps occur in occupations where several pressures come together. The number of workers entering these occupations each year through Alaska's training pipeline is much lower than the number needed during peak construction periods.

This dynamic becomes most visible during the period when project construction activity overlaps. Under the modeled full-project scenario, statewide workforce demand peaks in 2028. During this period, demand becomes highly concentrated in a small number of construction and industrial trades.

In these occupations, current training output will not meet peak demand during periods of major project concurrency without some combination of expanded training capacity, staggered project schedules, increased retention of resident workers, and continued reliance on nonresident labor.

Worker residency data further reinforces this challenge. Across the occupations analyzed, 18,911 of the 76,114 workers employed in these fields in 2024 were nonresidents, representing roughly 25 percent of the workforce. [Appendix E]

This pattern suggests that Alaska's labor market already relies on out-of-state workers to meet baseline demand. Project construction would likely increase this reliance unless workforce development capacity expands significantly.

9.2 Current Output vs. Maximum Expandable Capacity

A central finding of the statewide workforce analysis is that current training output and maximum scalable capacity are not the same.

Alaska's workforce development system may be capable of producing more workers than it does today, but expansion capacity varies significantly by occupation and cannot occur instantly.

This distinction matters because the workforce question is not simply whether training providers could theoretically train more workers. The more relevant question is whether additional capacity can be mobilized quickly enough, at sufficient scale, and in the appropriate occupations to affect the late-2020s project window.

For some occupations, training capacity can expand relatively quickly. These typically include shorter-duration programs where facilities already exist and instructor requirements are more flexible.

OCCUPATIONS	ANNUAL OPENINGS	PROJECTS	GAP
Plumbers & Pipefitters	99	1132	1231
Construction & Other Laborers	479	1151	1630
Heavy Equipment	145	920	1065
Welders	53	851	904
Electricians	79	434	513
Truck Drivers	152	414	566
Construction Managers	90	137	227
Structural Iron and Steel Workers	40	254	294
Civil & Mechanical Engineers	56	336	392

Figure 9.1 - Gap Analysis 2028 Key Construction Trades

For other occupations capacity expansion is slower and more structurally constrained. These programs often require:

- Qualified instructors with industry experience
- Specialized facilities and equipment
- Multi-year training pathways
- Regulatory licensing or registered apprenticeship requirements

As a result, maximum capacity should not be interpreted as immediately available workforce supply. Instead, it should be treated as an upper-bound planning assumption that depends on investment, timing, and provider readiness.

Truck Drivers and CDL Occupations

License issuance alone does not necessarily reflect the workers available for project-based logistics or hauling work. Reported annual training output may represent only a portion of statewide CDL training activity, such as currently funded program seats or completions from a set of providers, rather than the full practical training capacity available across Alaska.

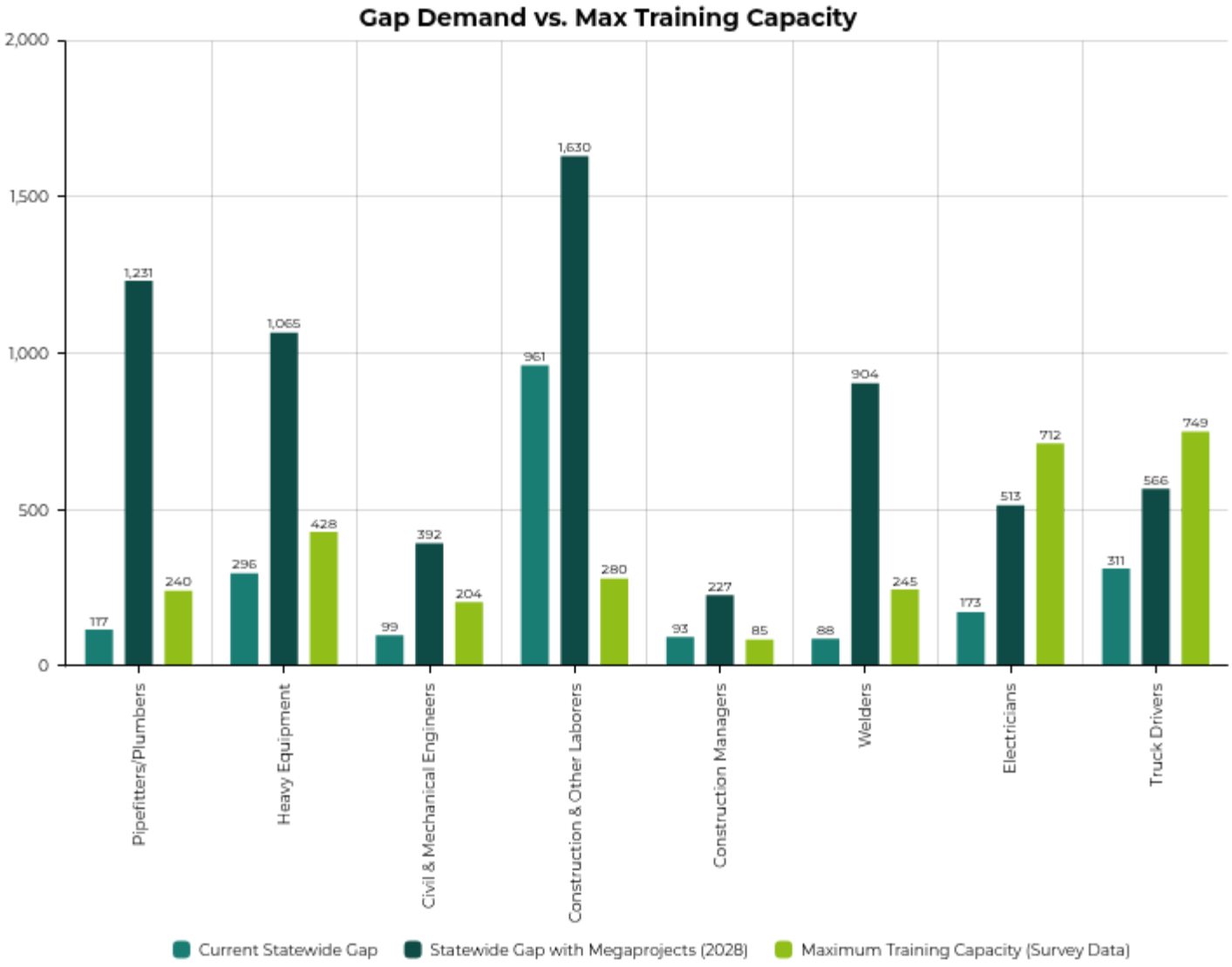

Figure 9.2 - Gap Demand vs Max Training Capacity [Appendix E][9]

Unlike most licensed construction trades, trucking occupations can scale more quickly through shorter training cycles and employer-based training programs. For this reason, it may be useful to distinguish between:

- Current annual completions
- Maximum expandable annual capacity under surge conditions

This distinction is especially important for transportation-related occupations that support large construction projects.

9.3 Timing and Sensitivity to Project Sequencing

The scale of Alaska's workforce challenge varies significantly depending on whether major projects proceed sequentially or concurrently. Workforce projections should be interpreted as scenario-based planning tools rather than fixed forecasts.

Under a full concurrency scenario, projected workforce gaps may appear substantial and difficult to address. If projects proceed on a staggered schedule, these same gaps may be considerably smaller as labor demand shifts across time.

Conversely, a training pipeline that appears adequate under a single-project scenario may prove insufficient if multiple projects advance simultaneously. Workforce planning must remain flexible and responsive to changes in project timing.

10. Training Pathway Comparison and Scalability Analysis

Alaska's workforce training system includes multiple pathways that prepare workers for construction, industrial, and technical occupations associated with large infrastructure and energy development projects. These pathways span the full workforce pipeline—from secondary CTE programs through postsecondary training, registered apprenticeship, and employer-led workforce development initiatives.

Each pathway contributes differently to workforce preparation. Programs vary in training duration, enrollment capacity, geographic accessibility, and ability to scale quickly in response to labor demand. Some pathways focus on long-term workforce development and professional credentialing, while others support faster entry into the construction workforce through shorter training programs.

Understanding these differences is important when evaluating how Alaska's workforce development system can respond to the temporary labor demand created by large-scale construction projects.

Training pathways discussed in this section build on the training provider inventory and capacity assessment described in Part III and reflect the primary mechanisms through which Alaska prepares workers for construction and industrial occupations.

10.1 Registered Apprenticeship

Registered apprenticeship programs represent one of the most traditional workforce development pathways for skilled construction trades in Alaska. These programs operate under standards approved by the Alaska Department of Labor and Workforce Development and the U.S. Department of Labor and combine paid on-the-job training with structured classroom instruction. [64]

Apprenticeships typically require two to five years to complete and provide training in many of the trades most relevant to major infrastructure projects, including electricians, plumbers and pipefitters, operating engineers, laborers, carpenters, ironworkers, and related construction crafts. Apprentices progress through defined wage steps and training milestones while gaining practical experience on active job sites.

PATHWAY	ROLE IN LNG WORKFORCE	TIME TO TRAIN	SCALABILITY
Apprentice	Journey-level skilled trades	2-5 Years	Moderate
College / technical programs	Tech. & industrial roles	1-2 Years	Moderate
Short-term credentials	Entry-level construction	Weeks-months	High
Employer-led training	Job-specific training	Weeks-months	Moderate
Hybrid fast-track	Rapid entry	Months	High

Figure 10 - Workforce Training Pathway Scalability Comparison

10.2 University and College Certificates and Degrees

Universities and colleges provide certificate and degree programs aligned with technical and industrial occupations associated with large infrastructure and energy development. Within Alaska, these programs are delivered primarily through the University of Alaska system, which includes campuses in Anchorage, Fairbanks, and Juneau, along with community campuses across the state. [72]

Additional institutions contributing to Alaska's technical training landscape include Alaska Pacific University in Anchorage [73], Ilisagvik College in Utqiaġvik [74], Charter College in Anchorage [76], and Alaska Career College in Anchorage. [77]

These institutions offer certificate, associate, and bachelor's degree programs supporting occupations such as welding technology, diesel and heavy equipment mechanics, industrial maintenance, instrumentation and controls, engineering technology, and construction management.

College and university technical programs typically require one to two years of study, combining classroom instruction with laboratory or shop-based training. Because many of these programs require specialized facilities, equipment, and instructors, enrollment capacity is often constrained by available training infrastructure. Expanding program capacity may require additional shop space, equipment investments, or instructional staff.

These programs support both construction-phase workforce preparation and long-term operations staffing for industrial facilities.

10.3 Short-Term Occupational Credentials

Short-duration technical training programs provide one of the fastest pathways for individuals to enter construction and industrial occupations. These programs focus on industry-recognized certifications or technical skills that can often be completed within several weeks to several months.

Common examples include commercial driver's license training, heavy equipment operation programs, welding certifications, safety training, and entry-level construction skill programs. These programs are frequently delivered by regional, technical and vocational training centers, nonprofit workforce development organizations, and private occupational training providers. [68][69][70][71]

Because of their shorter duration and focused curriculum, short-term credential programs can respond more quickly to workforce demand associated with construction projects. These programs often prepare workers for entry-level construction roles or equipment operation positions, providing an entry point into the broader construction workforce.

The training scope of these programs is typically narrower than multi-year apprenticeship or college and university technical programs. Workers entering the workforce through these pathways often continue developing skills through additional on-the-job experience or further training.

10.4 Employer-Led and Incumbent Worker Training

Employers also contribute to workforce development through internal training programs designed to prepare workers for company-specific operations and project environments. These programs often focus on equipment operation, safety certifications, job-site procedures, and specialized technical skills.

Employer-led training frequently targets incumbent workers—individuals who are already employed but require additional skills or certifications to perform specific tasks or operate specialized equipment. In some cases, employers also provide structured onboarding or training programs for newly hired workers entering project employment.

Tribal workforce organizations and regional workforce entities play an important role in expanding access to training and employment opportunities across Alaska's geographically dispersed communities.

Employer training functions primarily as a complement to formal training pathways, helping workers transition from technical training programs or apprenticeship systems into active project employment.

10.5 Union and Non-Union Craft Training

Construction workforce training in Alaska is delivered through both union-affiliated and non-union training systems. Many union craft programs operate Joint Apprenticeship and Training Committees (JATCs) that administer apprenticeship programs and provide trade-specific training through dedicated training centers.

Non-union training providers—including vocational training institutions, employer-sponsored training programs, and independent workforce development organizations—also prepare workers for construction occupations.

Although these systems often operate independently, both contribute to Alaska's broader construction workforce pipeline. Workers trained through union and non-union pathways participate in the same construction labor market and may work across a range of sectors, including energy development, infrastructure construction, mining, and industrial projects.

Evaluating workforce capacity requires considering the combined output of both union and non-union training systems.

10.6 Hybrid and Fast-Track Approaches

Several training providers are exploring accelerated workforce development models designed to respond to short-term labor demand associated with large infrastructure projects. These hybrid or fast-track programs combine elements of classroom instruction, short-term technical training, and employer-based learning.

Examples include accelerated welding programs, intensive heavy equipment training courses, and construction workforce academies that combine safety training, technical instruction, and job placement support.

These models aim to reduce the time required for workers to enter the construction workforce while maintaining industry-recognized training standards. Because they integrate multiple training elements, hybrid programs can provide a more structured pathway into construction employment than short-term certifications alone.

Successful implementation of these models often depends on coordination between training providers, employers, and workforce development organizations to ensure that training programs align with project workforce needs.

Conclusion

Taken together, Alaska's workforce development system includes multiple complementary training pathways that support construction and industrial workforce development. These pathways differ significantly in their ability to scale quickly in response to short-term workforce demand. Multi-year apprenticeship and degree programs remain essential for producing highly skilled tradespeople and technical professionals, but are less responsive to rapid changes in labor demand. Short-duration technical training, employer-led workforce development, and hybrid training models provide more flexible pathways for expanding the entry-level workforce during periods of intensive construction activity.

These differences highlight the importance of aligning workforce investment strategies with both the timing and occupational composition of projected workforce demand, a topic addressed in the following section.

Part V

Strategy & Investment

11. Investment and Scaling Strategies

Workforce modeling for the AKLNG Project indicates that peak construction demand will place concentrated pressure on several skilled construction and industrial occupations.

While Alaska maintains a geographically distributed training infrastructure capable of supporting steady-state workforce needs, the state's relatively small population and consistently low unemployment rate limit the capacity of the existing labor market to fully meet the additional workforce requirements associated with large-scale project construction.

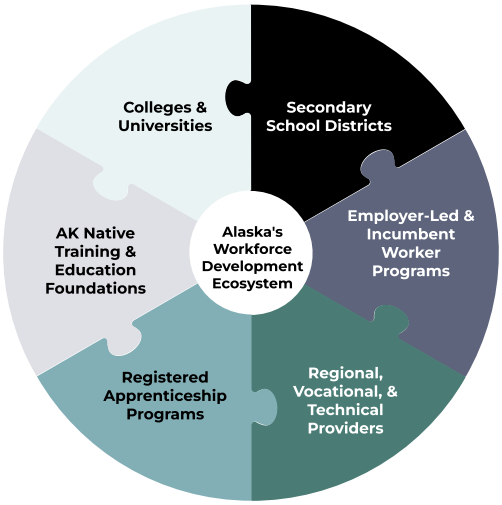

Figure 11 - Alaska's Workforce Development Ecosystem

Survey responses from training providers across Alaska reinforce these findings. Providers consistently identified instructor availability, facility capacity, and geographic access to training as the primary constraints affecting program expansion. Among these, the availability of qualified instructors emerged as the most significant barrier to scaling training programs.

Meeting projected workforce needs will require coordinated investment across the full training ecosystem. No single pathway can independently close projected workforce gaps. A coordinated, multi-pathway strategy is required to increase Alaska resident participation while maintaining realistic expectations regarding labor supply and project timelines.

Given Alaska's limited population base, workforce strategies must balance near-term construction needs with longer-term workforce development goals that support both project operations and broader industrial growth.

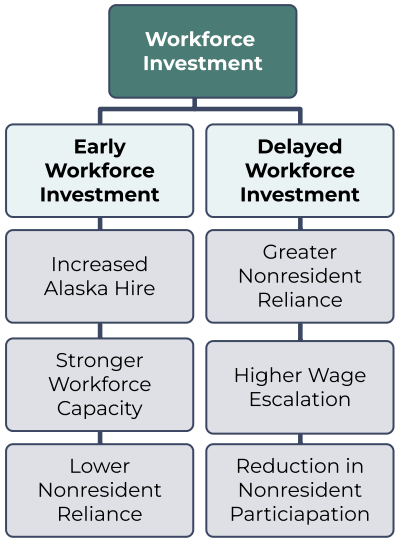

Figure 11a - Workforce Investment Timing & Project Labor Outcomes

For purposes of this analysis, time to entry is defined as the time required for an individual to meet minimum hiring requirements and begin paid employment in an occupation. This differs from the time required to achieve full certification or journeyperson status and provides a more practical measure of how quickly Alaska's workforce system can respond to near-term construction demand.

11.1 Occupation-Specific Strategies

Key expansion and capacity maximization strategies highlighted in this report include:

- Expand enrollment capacity in apprenticeship, technical education, and short-duration certification pathways aligned to pipeline and AKLNG construction
- Reduce training bottlenecks during peak construction windows through coordinated credential alignment and modular credential models
- Strategic instructor and facility capacity investment
- Targeted recruitment of underrepresented populations, including transitioning service members, rural residents, and underemployed individuals
- Prioritize training in high demand fields with the fastest pathways to employment
- Maximize Alaska resident workforce participation through workforce modeling

Workforce modeling and training provider survey responses indicate that the greatest workforce pressures will occur in a core group of construction and industrial occupations. These include:

- Construction and other laborers
- Construction managers
- Truck drivers
- Operating engineers
- Plumbers and pipefitters
- Welders
- Electricians
- Civil and mechanical engineers
- Structural iron and steel workers

Additional demand is expected in material moving occupations, camp support roles, and certain healthcare positions due to workforce displacement and population growth during peak construction.

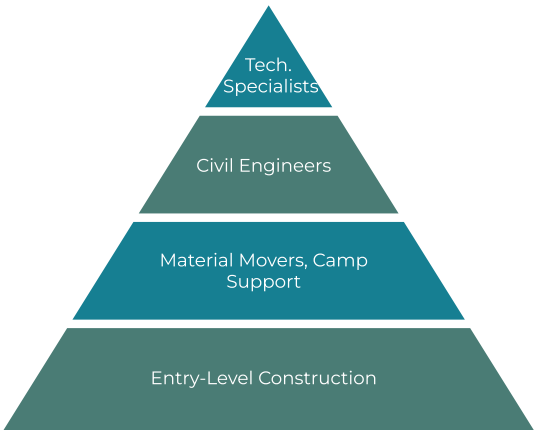

Figure 11.1 - Occupations Experiencing the Highest Workforce Pressure

These occupations require different scaling strategies based on training timelines, credential requirements, and contractor staffing models.

Short-cycle occupations such as construction laborers, CDL drivers, and entry-level welders offer the most immediate opportunity for workforce expansion. Vocational and regional training programs can prepare workers for these roles within months, allowing these pathways to influence early project mobilization phases.

Licensed construction trades, like electricians and mechanics, are primarily supplied through registered apprenticeship programs. Although most apprenticeship programs require two to four years to produce fully credentialed journeypersons, apprentices begin paid employment shortly after acceptance and dispatch. Time to entry typically ranges from several weeks to several months following program admission.

Apprenticeship participation is constrained by supervision requirements that typically require a one-to-one journeyperson-to-apprentice ratio. Expanding apprenticeship pipelines depends not only on apprentice recruitment but also on the availability of experienced journey-level workers to supervise on-the-job training. In some cases, alternative supervision models may allow programs to increase apprentice participation while maintaining safe training standards.

For example, certain State Apprenticeship Agency models allow ratios closer to two apprentices per journeyperson, which could significantly expand training capacity in high-demand trades such as electricians.

Professional occupations such as civil engineering, geology, and other technical disciplines require multi-year academic preparation. Because of the time required to complete these credentials, workforce expansion for these roles is difficult within the timeline of a short-notice project. Increasing supply depends on expanding college and university cohort capacity and initiating investments early enough to influence medium- to long-term workforce availability.

Project employers can further support this pipeline by making deliberate efforts to recruit and hire recent graduates from Alaska's engineering and technical programs.

Scaling strategies must align with occupation-specific training timelines while prioritizing occupations with the greatest projected demand and the most practical pathways for workforce expansion.

TRAINING TYPE	WORKFORCE	TIME TO WORKFORCE ENTRY
Short Cycle	Laborers CDL Drivers Entry Welders	1-3 Months
Apprenticeships	Electricians Plumbers Pipefitters	3-12 Months
Journeyman Development / Technical Degrees	Engineers Technical Specialists	2-4 Years

Figure 11.1a - Workforce Pipeline Timelines by Training Pathway

11.2 Mix of Training Pathways by Occupation

Alaska's workforce development ecosystem includes several complementary training pathways that collectively support construction and industrial workforce development.

Secondary CTE programs provide foundational exposure to construction and technical careers while allowing students to earn early industry-recognized credentials. Expanding these programs strengthens long-term workforce pipelines but has limited short-term impact on peak construction demand.

Strengthening early workforce pipeline recruitment is also important for long-term workforce development. Targeted marketing to high school students can increase awareness of construction and technical career pathways aligned with major infrastructure projects. Coordinated efforts between school districts, training providers, apprenticeship sponsors, and industry partners may help connect graduating students with vocational programs, apprenticeship opportunities, and entry-level employment pathways.

Regional and technical training providers offer rapid, industry-aligned credentialing for occupations with shorter time-to-entry windows. Survey responses indicate these programs represent the most scalable short-term workforce pathway. Expansion is frequently constrained by instructor availability, facility capacity, equipment requirements, and housing access for trainees traveling from rural communities.

Because instructor availability represents the most significant constraint, workforce funding strategies should prioritize training centers that already have experienced instructors and demonstrated success delivering workforce programs. Existing programs typically produce faster and more reliable workforce outcomes than establishing new facilities or programs.

Tribal and Native corporation workforce entities play a critical role in expanding training access in rural Alaska by providing scholarships, workforce readiness services, and supportive programming that helps reduce participation barriers.

Universities and colleges, including the University of Alaska system and private institutions, support workforce development through programs in engineering, process technology, instrumentation, diesel mechanics, industrial maintenance, and related technical fields aligned with both construction and long-term industrial operations.

The University of Alaska system can further support workforce expansion through enhanced recruitment and retention strategies, including expanded recruitment of out-of-state students. Increasing enrollment of college-age students from outside Alaska creates opportunities for long-term population growth and workforce participation.

Registered apprenticeship programs provide a pathway for licensed construction trades, though expansion depends on employer participation and the availability of journey-level workers for supervision.

Employer-based training systems provide project-specific onboarding, safety certifications, and skill acceleration aligned with project workforce needs.

Maintaining a balanced mix of these pathways reduces reliance on any single training system and improves the likelihood of increasing Alaska resident participation and hire rates across occupational levels.

TIME TO ENTRY BY OCCUPATION		
OCCUPATION	**PRIMARY PATHWAY**	**TIME TO ENTRY (PAID EMPLOYMENT)**
Construction Laborers	Direct Hire Vocational Apprenticeship	Immediate-3 Months
CDL Drivers	Vocational Apprenticeship	1-3 Months
Welders	Vocational Apprenticeship	2-12 Months
Operating Engineers	Vocational Apprenticeship	1-6 Months (post acceptance)
Electricians	Vocational Apprenticeship	2-6 Months (post acceptance)
Pipefitters	Vocational Apprenticeship	2-6 Months (post acceptance)
Civil Engineers	Postsecondary Degree	4+ Years

Figure 11.2 - Time to Entry by Occupation

11.3 Estimated Costs and Funding Considerations

Expanding workforce capacity will require coordinated funding across multiple training pathways. Training costs vary significantly depending on program type, duration, and equipment requirements.

TYPICAL COST PER TRAINING PATHWAY	
TRAINING PATHWAY	**TYPICAL COST RANGE**
CDL programs	$6,000 - $10,000
Welding programs	$8,000 - $23,000
Technical certificates	$10,000 - $20,000
Apprenticeship-related instruction	$5,000 - $8,000 Annually
Engineering degrees	$25,000+ Annually

Figure 11.3 - Typical Cost per Training Pathway

Existing funding sources include but are not limited to:

- Technical and Vocational Education Program (TVEP)
- State Training and Employment Program (STEP)
- Workforce Innovation and Opportunity Act (WIOA)
- State capital appropriations
- Federal workforce and infrastructure grants
- Apprenticeship expansion funding
- Industry contributions following Final Investment Decision

Funding strategies should prioritize occupations critical to early construction mobilization while simultaneously strengthening workforce pipelines for longer-term industrial and operational employment.

A two-to-four-year investment window is particularly important for occupations requiring longer preparation periods, including licensed construction trades and engineering disciplines. Investments in these pathways must begin well in advance of peak construction demand to influence workforce supply.

Funding strategies that are not delimited by short timelines will be especially effective at maximizing multi-year investment.

11.4 Time to Scale and Workforce Readiness

Time to scale varies significantly by occupation and training pathways. For workforce modeling purposes, time to entry reflects the duration required for an individual to begin paid employment rather than the time required to achieve full certification.

Under this definition, construction laborers, CDL drivers, and some welding positions can be prepared within months, while apprentices in licensed trades may begin paid employment shortly after acceptance.

Professional occupations such as civil engineering require multi-year academic preparation prior to workforce entry.

Recruitment of qualified applicants is also a key factor in workforce readiness. In a labor market with low unemployment, expanding workforce participation may require targeted outreach to underrepresented populations, mid-career transitions, and recruitment from outside Alaska.

Operational factors also affect training expansion. Addressing these barriers through mobile training delivery, hybrid instruction models, and supportive services will be important for enabling statewide participation.

11.5 Risks and Tradeoffs

If training expansion occurs too slowly, reliance on nonresident labor may increase, reducing Alaska resident participation and limiting long-term workforce development benefits. Conversely, strong project demand may drive wage escalation, creating competition for workers across industries and potentially drawing workers away from other sectors of Alaska's economy.

Infrastructure constraints, including housing availability, transportation capacity, and medical services, may also affect workforce participation in some regions. Prioritizing funding to offset these support costs would directly contribute to minimizing barriers to training access.

Funding volatility, delayed appropriations, or changes in project schedules could also affect the timing and effectiveness of workforce investments.

A coordinated strategy that balances Alaska's limited population with both immediate construction workforce needs and long-term workforce development provides the most resilient approach. By investing in both short-cycle training programs and longer-term workforce pipelines, Alaska can support project workforce demand while strengthening the state's long-term industrial workforce capacity.

12. Alaska Hire Optimization

Alaska's workforce development system operates within the constraints of a relatively small population base and an economy where many of the key construction and industrial occupations required for project development are already in consistent demand. Even with significant investment in training capacity, Alaska is unlikely to independently supply the full workforce required if multiple large projects proceed concurrently. A realistic Alaska Hire strategy should emphasize maximizing resident participation while recognizing that some level of nonresident labor will remain necessary during peak construction periods. Setting achievable workforce participation targets and prioritizing occupations where resident training pipelines can scale most effectively will allow workforce development efforts to focus on areas where Alaska hire can realistically increase.

Maximizing Alaska resident hire outcomes for the AKLNG Project will require coordinated strategies beyond training capacity alone. Alaska Hire outcomes are shaped by employer practices, procurement structures, workforce pipeline continuity, geographic access, and regional participation, in addition to workforce development readiness.

The 2018 Gasline Workforce Plan identified several foundational strategies to strengthen resident hire outcomes, including negotiation of project labor agreements, application of Alaska bidder and hire preferences, expansion of apprenticeship utilization goals, increased workforce diversity outreach, and improved access to occupational information resources. [4] Building on these recommendations, this update frames Alaska Hire as a system-wide outcome shaped by alignment across education and training providers, project contractors, state agencies, and regional stakeholders.

12.1 Alaska Hire as an Outcome

Alaska Hire should be understood as a long-term workforce outcome shaped by sustained system alignment rather than a single measurable target tied solely to project construction timelines.

In the near term, Alaska Hire optimization will involve aligning training delivery with anticipated project labor demand, expanding apprenticeship and credential pathways in priority occupations, and strengthening communication between project contractors and Alaska training providers. Integration of workforce considerations into procurement practices and contractor workforce planning may further support resident participation by encouraging early recruitment and utilization of Alaska-trained workers.

Maximizing Alaska hire will require recognition of the project's peak workforce scale and the likelihood of continued reliance on nonresident labor in specialized or time-sensitive occupations. As a result, Alaska Hire strategies should prioritize incremental gains across workforce pipeline stages, focusing on occupations where training capacity can be expanded, barriers can be reduced, and resident participation can increase over time.

Figure 12.1 - System Drivers Influencing Alaska Hire Outcomes

A practical strategy to support Alaska Hire outcomes is the establishment of a structured workforce coordination and demand signaling process between project contractors and Alaska training providers. Early sharing of occupational forecasts, hiring timelines, certification requirements, and rotation schedules can enable training institutions to align cohort timing, curriculum emphasis, and enrollment targets with anticipated workforce demand. This coordination may also support apprenticeship sponsor planning, targeted outreach to Alaska residents, and improved transitions from training into employment.

12.2 Regional Participation

Regional participation will be an important component of Alaska Hire optimization. Residents in rural and off-road communities face unique barriers related to travel, housing, scheduling, and temporary workforce displacement within their home communities. In smaller communities, workforce participation may require consideration of backfill needs for essential local roles to maintain community continuity during periods of extended absence.

Coordinated housing and travel strategies, flexible scheduling models, and compensation structures that acknowledge participation challenges may support broader regional engagement. Additionally, ensuring that workforce planning information is shared across contractors and subcontractors can promote intentional recruitment strategies that reflect Alaska's geographics and demographics.

12.3 Continued Need for Nonresident Labor

Alaska Hire as an outcome does not imply that nonresident labor will be unnecessary. Given projected peak demand, nonresident workers will likely comprise a significant portion of the project workforce, reinforcing the importance of strategies that maximize resident participation while recognizing labor supply limitations.

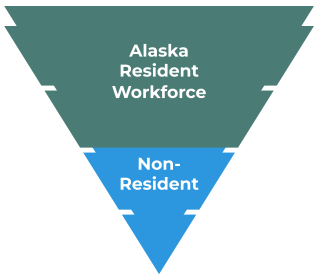

Figure 12.3 - Goal of the Alaskan Workforce

Utilization of Alaska training providers in preparing both resident and nonresident workers, alignment of contractor workforce development activities with in-state institutions, and knowledge transfer between resident and nonresident workers may support broader workforce development goals.

Ensuring that workforce planning information is accessible to project contractors represents an important step in improving coordination between workforce preparation and project labor needs.

Strategic workforce development planning should also prioritize Alaska Hire opportunities that extend beyond the construction period and support long-term employment in industries that will remain active after project completion.

Conclusion

The strategies outlined in Part V emphasize that meeting the workforce demands associated with the AKLNG Project will require coordinated investment, strategic planning, and collaboration across Alaska's workforce development system. Because training pathways vary significantly in their time to entry and scalability, workforce strategies must balance rapid workforce entry for short-cycle construction occupations with sustained investment in longer-term technical and professional pipelines. Expanding instructor capacity, strengthening training infrastructure, improving access to supportive services, and aligning training delivery with anticipated project demand will all be critical to increasing Alaska resident participation. Realistic workforce planning must acknowledge Alaska's demographic and labor market limitations while leveraging the project as an opportunity to strengthen the state's long-term industrial workforce capacity and improve Alaska Hire outcomes. Setting measurable goals for Alaska Hire benchmarks will allow Alaska to increase resident workforce participation where it is most achievable.

Part VI

Implementation & Accountability

13. Implementation Priorities

Successful workforce scaling for AKLNG will depend on focusing investments and coordination efforts on a limited number of high-impact actions. Based on the strategies outlined in Section 11 and feedback from statewide training providers, three implementation priorities emerge.

Priority 1: Maximize Existing Training Capacity

The fastest and most cost-effective method of increasing workforce supply is to fully utilize existing training programs that already have instructors, facilities, and operational infrastructure.

Survey responses consistently identified instructor availability as the primary constraint on training expansion. Workforce investments should prioritize providers with demonstrated program delivery capacity and qualified instructional staff.

Initial funding allocations should focus on bringing existing training providers, apprenticeship programs, and secondary CTE programs to full operational capacity before developing new programs or facilities.

Prioritizing existing training infrastructure allows Alaska to increase workforce output quickly while strengthening the long-term capacity of the state's workforce system.

Priority 2: Expand Workforce Pipelines Aligned with Time-to-Entry

Different occupations require significantly different training timelines. Workforce expansion occurs across multiple training pathways simultaneously.

Short-cycle training programs, such as construction laborer, CDL training, heavy equipment operation, and entry-level welding, represent the most immediate opportunity to increase workforce participation during early construction mobilization.

Also, longer-term workforce pipelines must expand early to influence peak construction demand. Apprenticeship intake and college and university enrollment should increase during early project phases so that apprentices and graduates are available during peak workforce demand.

This dual-track strategy supports both near-term construction workforce needs and longer-term workforce development, ensuring that investments made for AKLNG continue to strengthen Alaska's industrial workforce beyond the life of the project.

Priority 3: Strengthen Workforce Recruitment and Retention

Alaska's small population and low unemployment rate mean that workforce expansion cannot rely solely on training capacity. Increasing workforce participation will also require active recruitment and retention strategies.

These efforts may include:

- Expanding participation in high school CTE programs aligned with construction and industrial occupations
- Strengthening transitions from secondary education into vocational training and apprenticeships
- Recruiting mid-career workers seeking transitions into construction and technical occupations
- Increasing recruiting of out-of-state students into Alaska's college and university institutions with the goal of long-term workforce participation

Strengthening workforce recruitment ensures that expanded training capacity translates into actual workforce participation while supporting long-term workforce growth across Alaska's industrial sectors.

13.1 Implementation Framework

Workforce scaling for AKLNG must occur through coordinated action across training providers, employers, and workforce agencies. Implementation must prioritize the most scalable pathways first, maximize existing instructional capacity, and align workforce production timelines with project labor demand.

Because Alaska's workforce system operates across multiple institutions and training pathways, implementation requires clearly defined roles, coordinated planning, and continuous monitoring of labor demand and training output.

In addition, several large infrastructure and resource development projects across Alaska remain contingent upon Final Investment Decision by project sponsors. While FID formally authorizes construction, workforce preparation must occur prior to this milestone in order to avoid labor shortages during early mobilization.

In the case of the AKLNG Project, several major contractors and strategic partners have already been conditionally identified prior to FID. This early contractor engagement creates an opportunity for workforce coordination activities to begin in advance of full project authorization. Sharing anticipated workforce requirements, certification expectations, and mobilization timelines with Alaska training providers may allow elements of workforce preparation to proceed earlier than is typical for large infrastructure projects.

The implementation framework focuses on pre-construction workforce preparation, construction-phase workforce scaling, and long-term workforce sustainability.

Through phased alignment, coordinated governance, and clearly defined institutional roles, Alaska can increase resident workforce participation during AKLNG development while strengthening the long-term capacity of the state's workforce training system.

13.2 Phased Implementation Approach

Workforce development for AKLNG must be sequenced in alignment with project construction phases and workforce production timelines. Training pathways vary significantly in the time required to produce workers. A phased implementation approach ensures that workforce supply expands in a manner that supports both early construction mobilization and peak project demand.

Phase I: Workforce Preparation (Pre-Construction)

The first phase focuses on strengthening training capacity and expanding workforce pipelines prior to large-scale project mobilization.

Key actions include:

- Expanding short-cycle vocational programs for construction laborers, CDL drivers, heavy equipment operators, and entry-level welders
- Maximizing utilization of existing vocational and regional training centers with instructors, programs, and facilities in place
- Expanding enrollment in existing high school CTE programs aligned with construction and industrial occupations
- Increasing apprenticeship program intake so that apprentices are positioned to enter the workforce prior to peak construction demand

These early investments position Alaska residents to participate in construction employment opportunities while strengthening the long-term capacity of the workforce training system.

Phase II: Construction Phase Workforce Scaling

Once projects reach FID and move into active construction, workforce expansion must become dynamic and responsive to contractor mobilization schedules and real-time labor demand.

Short-cycle training programs continue to supply entry-level workers during construction phases, while apprentices enrolled during earlier phases begin contributing to workforce supply.

Workforce coordination mechanisms should monitor contractor mobilization schedules, apprenticeship dispatch patterns, and training completion rates to ensure training output remains aligned with project workforce demand.

Training providers may need to adjust enrollment levels, expand class capacity, or modify program delivery models to respond to contractor demand signals during this period.

This adaptive approach helps ensure Alaska's workforce system can respond to shifting labor demand while maximizing resident participation in project employment.

Phase III: Workforce Transition and Long-Term Sustainability

The final phase focuses on sustaining workforce capacity beyond peak construction. Training capacity expanded during earlier phases should transition toward supporting long-term industrial employment. Maintaining training capacity beyond peak construction helps avoid cyclical contraction of the workforce system and preserves instructional expertise developed during earlier phases.

In this way, workforce investments made in preparation for AKLNG development can continue to support Alaska's industrial workforce needs for decades to come.

13.3 Coordination and Oversight Governance

Given the scale of projected workforce demand and the number of participating institutions, coordinated governance is necessary to ensure training expansion remains aligned with labor market needs.

A project-aligned workforce coordination mechanism should operate during both pre-construction and active construction phases. Its purpose is not to centralize decision-making, but to facilitate information sharing, monitor workforce indicators, and align training output with labor demand.

Key workforce indicators should be reviewed regularly, including:

- Contractor mobilization schedules
- Apprenticeship intake and dispatch levels
- Vocational program enrollment and completion rates
- Workforce placement outcomes
- Alaska resident hire percentages

This monitoring structure creates a feedback loop between workforce demand and workforce supply, allowing training providers and workforce agencies to adjust program capacity as conditions change.

Adaptive management will be essential. If project timelines accelerate, short-cycle training programs may need to expand capacity more rapidly. If project schedules shift or demand moderates, training expansion may need to slow in order to avoid oversupply.

Through transparent data sharing and coordinated oversight, Alaska's workforce system can respond to evolving project conditions while maintaining long-term workforce stability.

Conclusion

Part VI outlines the practical steps required to translate workforce strategies into coordinated action.

Successfully scaling Alaska's workforce for the AKLNG Project will depend on prioritizing existing training capacity, aligning workforce pipelines with occupation-specific training timelines, and strengthening recruitment and retention efforts to expand participation. A phased implementation approach—beginning with pre-construction workforce preparation, transitioning to responsive workforce scaling during active construction, and sustaining capacity for long-term industrial employment—provides a structured framework for aligning workforce supply with project demand. Equally important is the establishment of coordinated oversight and information sharing among training providers, employers, and workforce agencies. By combining clear implementation priorities with ongoing monitoring and adaptive management, Alaska can position its workforce system to respond effectively to changing project timelines while strengthening the state's long-term workforce development capacity.

KEY TAKEAWAYS & ACTIONABLE RECOMMENDATIONS	
KEY TAKEAWAY	**ACTIONABLE RECOMMENDATION**
Alaska does not have the population size or training capacity to independently supply the workforce required for multiple projects.	Adopt a realistic Alaska Hire strategy by setting achievable workforce participation targets.
Federal apprenticeship requirements constrain the ability of programs to rapidly expand enrollment.	Invest in apprenticeship expansion, by becoming a SAA and having the potential to double the number of apprentices in some trades.
Many training providers are not at capacity.	Scale short-term training immediately, maximizing Alaska resident hire to anticipate near-term workforce demand.
Existing workforce funding programs often do not address the primary barriers preventing individuals from participating in training.	Prioritize funding toward student support costs, including transportation, housing, and childcare.
Short-term workforce funding cycles limit the ability of training providers to plan and scale programs.	Stabilize workforce funding through multi-year commitments aligned with project timelines.

Appendix A

Occupational Definitions & Crosswalks

A.1 Purpose of This Appendix

This appendix defines the occupational groupings used throughout the report and provides a crosswalk between key occupations identified for analysis and the full set of Standard Occupational Classification (SOC) codes used in workforce modeling.

The purpose of this appendix is to:

- Clarify how occupations were grouped for analysis and reporting
- Ensure consistency between workforce demand modeling and training capacity comparisons
- Provide transparency regarding the occupational scope included in the model

A.2 Key Occupations

The following occupations were identified as key occupations based on their:

- High demand across multiple modeled projects
- Critical role in construction and industrial project delivery
- Relevance to Alaska's workforce development system

These occupations are used throughout the report for workforce gap analysis and capacity comparisons.

KEY OCCUPATION	PRIMARY SOC CODE(S)	DESCRIPTION
Civil & Mechanical Engineers	17-2051 17-2141	Engineers responsible for infrastructure design, systems integration, and construction support
Construction & Other Laborers	47-2061 53-7062	General labor roles supporting construction, material handling, and site operations
Truck Drivers	53-3032	Heavy and tractor-trailer truck drivers supporting logistics and material transport
Operating Engineers	47-2073	Equipment operators responsible for heavy machinery operation
Electricians	47-2111	Electrical installation, maintenance, and systems work
Plumbers & Pipefitters	47-2152 47-2151	Mechanical system installation including piping, fluid systems, and process infrastructure
Construction Managers	11-9021	Supervisory and project management roles overseeing construction execution
Welders	51-4121	Welding and fabrication roles critical to structural and pipeline construction
Structural Iron & Steel Workers	47-2221	Structural assembly and steel erection for industrial and infrastructure projects

A.3 Occupational Crosswalk Methodology

The workforce model was developed using detailed SOC-level occupations, which were then grouped into broader categories for analysis.

Key considerations:

- SOC codes reflect the 2018 Standard Occupational Classification system
- Individual SOC occupations were grouped into functional construction and industrial categories
- Key occupations represent aggregated groupings, not single job titles
- Some occupations contribute to multiple functional categories depending on project context

This crosswalk enables comparison between:

- Modeled workforce demand (SOC-level detail)
- Training pipeline capacity (program-level data)
- Report-level analysis (aggregated occupations)

A.4 Full List of Modeled Occupations

The following table includes all occupations incorporated into the workforce demand model.

SOC CODE	OCCUPATION TITLE
47-2061	Construction Laborers
47-2073	Operating Engineers & Other Construction Equipment Operators
47-2152	Plumbers, Pipefitters, and Steamfitters
53-3032	Heavy and Tractor-Trailer Truck Drivers
17-2051	Civil Engineers
17-2141	Mechanical Engineers
11-9021	Construction Managers
51-4121	Welders, Cutters, Solderers, and Brazers
17-3029	Engineering Technicians, Except Drafters
53-7062	Laborers and Freight, Stock, and Material Movers, Hand
47-2111	Electricians
47-2031	Carpenters
35-2014	Cooks, Restaurant
35-3023	Fast Food and Counter Workers
53-3033	Light Truck Drivers
13-1023	Purchasing Agents
29-9011	Occupational Health and Safety Specialists

SOC CODE	OCCUPATION TITLE
43-6014	Secretaries and Administrative Assistants
47-4011	Construction and Building Inspectors
17-2071	Electrical Engineers
17-2199	Engineers, All Other (Process, Chemical)
29-1141	Registered Nurses
35-3031	Waiters and Waitresses
47-2151	Pipelayers
49-9071	Maintenance and Repair Workers, General
35-1011	Chefs and Head Cooks
35-2021	Food Preparation Workers
53-7064	Packers and Packagers, Hand
11-9041	Architectural and Engineering Managers
29-2061	Licensed Practical and Licensed Vocational Nurses
29-1215	Family Medicine Physicians
47-2051	Cement Masons and Concrete Finishers
17-1022	Surveyors
47-2221	Structural Iron and Steel Workers

SOC CODE	OCCUPATION TITLE
53-7021	Crane and Tower Operators
49-3042	Mobile Heavy Equipment Mechanics, Except Engines
29-2052	Pharmacy Technicians
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists
47-2071	Paving, Surfacing, and Tamping Equipment Operators
53-5011	Sailors and Marine Oilers
53-5021	Captains, Mates, and Pilots of Water Vessels
17-2121	Marine Engineers and Naval Architects
47-2161	Plasterers and Stucco Masons
53-7051	Industrial Truck and Tractor Operators
47-5023	Earth Drillers, Except Oil and Gas
47-2053	Terrazzo Workers and Finishers

A.5 Interpretation Notes

- Not all modeled occupations are included in “key occupation” analysis
- Key occupations represent priority workforce pressure points, not total workforce composition
- Support occupations (e.g., food service, administrative roles, healthcare) are included to reflect full project workforce ecosystems, particularly in remote or camp-based environments
- Occupational groupings may vary slightly across projects depending on construction type and workforce structure

Appendix B

Training Provider Capacity Tables

ESTIMATED ANNUAL TRAINING OUTPUT BY OCCUPATION (BASED ON SURVEY RESPONSES)		
TRAINING AREA	**PRIMARY PATHWAY**	**ESTIMATED TRAINING OUTPUT CHARACTERISTICS**
Commercial Truck Drivers	Vocational	Programs reported regular training cohorts & the ability to scale enrollment based on instructor availability & equipment capacity
Heavy Equipment Operators	Vocational	Programs typically operate multiple training sessions annually and can expand capacity with additional instructors & equipment
Welders	Postsecondary / Vocational	Training programs are offered at institutions statewide with capacity tied to shop space & instructor availability
Electricians	Apprenticeship	Training intake varies by apprenticeship cycle & demand; typically admit new cohorts annually
Pipefitters / Plumbers	Apprenticeship	Enrollment tied to contractor hiring demand & apprenticeship intake cycles
Carpenters	Apprenticeship	Programs report the ability to increase apprentice intake when demand increases
Construction Laborers	Vocational / Apprenticeship	Entry-level training programs can scale relatively quickly during increased demand
Industrial Mechanics / Millwrights	Apprenticeship	Training programs are smaller but aligned with industrial construction & facility maintenance occupations
Engineers	Postsecondary	Degree programs typically require four years of study & produce smaller annual graduation
Process Technicians	Postsecondary	Programs produce graduates prepared for industrial facility operations & maintenance roles

KEY FINDINGS FROM SURVEY RESPONSES	
FINDING	**SUMMARY**
Most scalable training areas	CDL drivers, laborers, and equipment operators
Moderately scalable occupations	Welders and carpenters
Long lead-time occupations	Engineers and technical specialists and construction managers
Primary constraint across sectors	Instructor availability
Additional constraints	Equipment costs, training facilities, and housing for trainees in rural regions

TRAINING CAPACITY ESTIMATION (BASED ON SURVEY DATA & OUTREACH														
	UAA	UAF	UAS	AVTEC	NIT	ILISAGVIK	ADA	KPDI	ATC	NACTEC	SAVEC	MAPTS	APPRENTICESHIPS	TOTAL
Electricians	0	0	0	18	0	0	0	0	0	0	0	0	694	712
CDL	0	0	0	0	375	30	144	200	0	0	0	0	0	749
Heavy Equipment Operation / Transportation	0	12	0	0	84	0	0	0	0	120	22	138	58	1016
Diesel Mechanics	25	25	25	16	52	0	0	0	0	60	128	0	58	389
Plumbing		0		24	0	0	0	0	0	0	0	0	216	240
Culinary	30	30	30	24	0	0	0	0	20	40	0	0	0	174
Welding	16	16	16	24	91	10	0	0	10	40	22	0	0	245
Carpentry	15	15	15	16	20	0	0	0	10	40	22	0	158	311
Skilled Laborer	0	0	0	0	96	16	0	0	0	0	0	0	168	280
Construction Management	60	25	0	0	0	0	0	0	0	0	0	0	0	85
Civil Engineering	44	44	0	0	0	0	0	0	0	0	0	0	0	88
Mechanical Engineering	58	58	0	0	0	0	0	0	0	0	0	0	0	116
Project Management	40	40	0	0	0	12	0	0	0	0	0	576	0	668

Data in this table was provided by each training facility via surveys.

Appendix C

Training Pathways & Provider Survey Results

C.1 Registered Apprenticeships

To better understand the capacity of Alaska's workforce training system, a statewide survey of training providers was conducted between January 27 and February 20, 2026. The survey targeted organizations across five segments of Alaska's workforce development pipeline:

- Registered Apprenticeship Programs
- Postsecondary Institutions
- Regional and Vocational Training Providers
- Secondary Education and Career & Technical Education (CTE) Programs
- Alaska Native Training and Education Foundations

Survey outreach included approximately 150 organizations statewide, representing the majority of Alaska's formal workforce training infrastructure relevant to construction, transportation, and industrial occupations.

APPRENTICESHIP TRAINING ORGANIZATIONS SURVEYED	
ORGANIZATION	**RESPONSE STATUS**
Associated Builders & Contractors Alaska	Received
Western States Regional Council of Carpenters	Received
Alaska Metal & Mechanical	Received
International Brotherhood of Electrical Workers (IBEW)	Not Received
Operating Engineers	Not Received
Laborers Union (Local 71, 341, 942)	Not Received
UA Plumbers and Pipefitters	Not Received
Boilermakers Local 502	Not Received
Ironworkers Local 751	Not Received
Carpenters Training Centers	Not Received
Millwright Training Programs	Not Received
Insulators Local 97	Not Received
Piledriver & Divers Local 2520	Not Received
Anchorage Trowel Trades Training Center	Not Received
Fairbanks Trowel Trades Training Center	Not Received
Painters & Allied Trades Joint Apprenticeship	Not Received
Teamsters / Center for Employment Education	Not Received
Alaska Works Partnership	Not Received
Alaska AFL-CIO	Not Received
State of Alaska Apprenticeship Coordinator	Not Received

SURVEY RESULTS - APPRENTICESHIP PROGRAMS	
INDICATOR	**RESULTS**
Primary training model	Classroom + on-the-job training
Typical program length	3–5 years
Major occupations trained	Electricians, pipefitters, carpenters, laborers, ironworkers
Primary constraint reported	Instructor availability
Secondary constraint	Availability of contractor work hours
Expansion potential	Programs can expand intake during periods of increased construction demand

C.2 Colleges & Universities

UNIVERSITY SYSTEMS SURVEYED		
UNIVERSITY SYSTEM	**CAMPUS**	**RESPONSE STATUS**
University of Alaska Anchorage	Anchorage	Received
University of Alaska Anchorage	Homer	Received
University of Alaska Anchorage	Kenai Peninsula College	Received
University of Alaska Anchorage	Kodiak College	Received
University of Alaska Anchorage	Mat-Su College	Received
University of Alaska Anchorage	Prince William Sound College (Valdez)	Received
University of Alaska Anchorage	Bethel	Received
University of Alaska Anchorage	Dillingham	Received
University of Alaska Fairbanks	Main Campus	Received
University of Alaska Fairbanks	College of Engineering & Mines	Received
University of Alaska Fairbanks	Chukchi Campus	Received
University of Alaska Fairbanks	Northwest Campus	Received
University of Alaska Southeast	Juneau	Received
University of Alaska Southeast	Sitka	Received

ADDITIONAL POSTSECONDARY INSTITUTIONS SURVEYED	
INSTITUTION	**RESPONSE STATUS**
Ilisagvik College	Received
Charter College	Not Received
Alaska Pacific University	Not Received
Alaska Career College	Not Received

SURVEY RESULTS - POSTSECONDARY PROGRAMS	
INDICATOR	**RESULT**
Typical credential	Certificate, Associate Degree, Bachelor's Degree
Typical program duration	2–4 years
Primary workforce focus	Engineering and industrial technical occupations
Primary constraint	Length of degree programs
Expansion potential	Dependent on enrollment growth and faculty availability

C.3 Regional, Technical & Vocational Training Providers

REGIONAL, TECHNICAL & VOCATIONAL PROVIDERS SURVEYED	
ORGANIZATION	**RESPONSE STATUS**
Alaska Vocational Technical Center (AVTEC)	Received
Northern Industrial Training (NIT)	Received
Alaska Technical Center (ATC)	Received
Alaska Driving Academy	Received
Southwest Alaska Vocational Education Center (SAVEC)	Received
Northwest Arctic Career & Technical Center (NACTEC)	Received
MAPTS	Received
Fairbanks Pipeline Training Center	Not Received
Kenai Peninsula Driving Instruction	Not Received
AKA Hauling	Not Received
Southeast Trucking	Not Received
Amundsen Education Center	Not Received
Yuut Elitnaurviat	Not Received
Partners for Progress	Not Received
Generations Southeast	Not Received
Galena Interior Learning Academy	Not Received

SURVEY RESULTS - REGIONAL, TECHNICAL & VOCATIONAL TRAINING PROVIDERS	
INDICATOR	**RESULT**
Typical program length	2 weeks – 12 months
Programs aligned with construction trades	CDL, welding, equipment operation
Average program utilization	Many providers reported unused training capacity
Primary constraints	Instructor availability, equipment costs
Additional constraint	Housing for trainees in remote regions

C.4 Secondary Education & CTE Systems

MAJOR SCHOOL DISTRICTS SURVEYED	
SCHOOL DISTRICT	**RESPONSE STATUS**
North Slope Borough School District	Received
Matanuska-Susitna Borough School District	Received
Fairbanks North Star Borough School District	Received
Anchorage School District	Not Received
Kenai Peninsula Borough School District	Not Received
Juneau Borough School District	Not Received
Sitka School District	Not Received
Kodiak Island Borough School District	Not Received
Lower Kuskokwim School District	Not Received
Yukon-Koyukuk School District	Not Received

ADDITIONAL SCHOOL DISTRICTS SURVEYED	
SCHOOL DISTRICT	**RESPONSE STATUS**
Yupiit	Received
Southeast Island	Received
Cordova City	Received
Alaska Gateway	Not Received
Aleutian Region	Not Received
Aleutians East Borough	Not Received
Annette Island	Not Received
Bering Strait	Not Received
Bristol Bay Borough	Not Received
Chatham	Not Received
Chugach	Not Received
Copper River	Not Received

ADDITIONAL SCHOOL DISTRICTS SURVEYED	
SCHOOL DISTRICT	**RESPONSE STATUS**
Craig City	Not Received
Delta-Greely	Not Received
Denali Borough	Not Received
Dillingham City	Not Received
Galena City	Not Received
Haines Borough	Not Received
Hoonah City	Not Received
Hydaburg City	Not Received
Iditarod Area	Not Received
Kake City	Not Received
Kashunamiut	Not Received
Ketchikan Gateway	Not Received
Klawock City	Not Received
Kuspuk	Not Received
Lake & Peninsula Borough	Not Received
Lower Yukon	Not Received
Nenana City	Not Received
Nome Public Schools	Not Received
Northwest Arctic Borough	Not Received
Pelican City	Not Received
Petersburg Borough	Not Received
Pribilof	Not Received
Saint Mary's	Not Received
Skagway	Not Received
Southwest Region	Not Received
Tanana City	Not Received
Unalaska City	Not Received
Valdez City	Not Received
Wrangell Public School District	Not Received
Yakutat	Not Received
Yukon Flats	Not Received

SPECIALIZED SECONDARY INSTITUTIONS SURVEYED	
SCHOOL DISTRICT	**RESPONSE STATUS**
Mount Edgecumbe High School	Not Received
Alaska State School for the Deaf & Hard of Hearing	Not Received
Galena Interior Learning Academy	Not Received

TYPICAL TRAINING AREAS
Welding
Construction Technology
Electrical Systems
Automotive / Diesel Technology
Aviation Maintenance
Industrial Safety

C.5 Alaska Native Training and Education Foundations

ALASKA NATIVE TRAINING AND EDUCATION FOUNDATIONS	
ORGANIZATION	**RESPONSE STATUS**
AHTNA Incorporated	Received
CIRI Foundation	Received
Calista Corporation	Received
Aqquluk Trust	Received
Arctic Education Foundation (ASRC)	Not Received
Bristol Bay Native Corporation	Not Received
Koniag	Not Received
Bering Straits Native Corporation	Not Received
NANA Regional Corporation	Not Received
Aleut Foundation	Not Received
Doyon Foundation	Not Received
Sealaska Heritage Institute	Not Received
Beringia Settlement Trust Scholarship Program	Not Received
Chugach Heritage Foundation	Not Received
Cook Inlet Tribal Council	Not Received
Knik Tribe	Not Received
Yuut Elitnaurviat	Not Received

WORKFORCE PROGRAMS REPORTED
Scholarship programs
Workforce readiness training
Construction training partnerships
Career counseling
Employment placement services

Appendix D

Survey Instruments & Methodology

SURVEY TIMELINE	
ACTIVITY	**DATE**
Survey distribution	January 27, 2026
Survey collection period	Jan 27 – Feb 20, 2026
Survey analysis	February 2026

TRAINING PROVIDERS CONTACTED	
TRAINING PATHWAY	**APPROXIMATE PROVIDERS CONTACTED**
Registered Apprenticeship Programs	~25
Postsecondary Institutions	~18
Regional & Vocational Training Providers	~20
Secondary School Districts	~55
Alaska Native Training and Education Foundations	~15
Total Organizations Contacted	~150

DATA COLLECTED THROUGH SURVEY	
CATEGORY	**INFORMATION COLLECTED**
Program Characteristics	Types of training programs offered
Training Capacity	Estimated annual output
Enrollment	Current enrollment levels
Constraints	Instructor, facilities, equipment
Workforce Alignment	Occupations served

USE OF SURVEY DATA	
ANALYSIS AREA	**PURPOSE**
Training infrastructure mapping	Identify statewide workforce training providers
Capacity estimation	Estimate workforce training output
Constraint analysis	Identify barriers to training expansion
Workforce alignment	Evaluate training pathways for project occupations

Survey findings informed the training capacity analysis presented in Part III of this report. Estimated training output reflects aggregated survey responses from training providers and should be interpreted as approximate capacity ranges rather than precise annual totals.

Appendix E

Data Sources, Technical Notes & Assumptions

E.1 Purpose of This Appendix

This appendix documents the data sources, technical framework, and core assumptions used to develop workforce demand projections and training capacity estimates for the Alaska LNG (AKLNG) Project and other major Alaska infrastructure and resource development projects included in this study.

Workforce projections presented in this report are modeled estimates. Project sponsors and principals were contacted to request occupation-level workforce forecasts. Detailed staffing plans were not made available for inclusion in this analysis. Accordingly, workforce demand was derived using a structured modeling methodology applied consistently across all projects.

Training capacity estimates were developed using a combination of survey responses, direct outreach, and structured estimation methods to supplement workforce demand analysis.

The spreadsheets and outputs included in this appendix serve as the technical documentation supporting the projections summarized in the report.

E.2 Data Foundation

Workforce demand modeling was provided by E4M Consulting, LLC, and relied on publicly available information, including:

- Project descriptions and development plans
- Publicly discussed employment ranges where available
- Published or publicly presented construction sequencing
- Federal and state permitting documentation
- Public capital investment estimates
- Construction phase descriptions (pipeline, liquefaction facility, mining infrastructure, marine works, heavy civil, road construction)

No proprietary contractor staffing plans, execution plans, or collective bargaining agreements were used in this modeling.

Training capacity data relied on:

- Statewide training provider survey responses
- Direct outreach (phone interviews) with providers
- Institutional enrollment data (University of Alaska system)
- Federal apprenticeship data
- Structured estimation methods for non-responding providers

E.3 Modeling Framework

A consistent analytical framework was applied in order to:

- Establish project phasing and development timeline based on
- Identify construction sequencing, concurrency, and anticipated ramp-up
- Anchor total workforce to publicly discussed employment magnitudes
- Develop time-distributed workforce curves reflecting mobilization, peak construction, and taper
- Allocate workforce by occupation

Annual Workforce Metric:

For annual comparisons, the highest quarterly workforce value within each year was used. This represents the peak workforce requirement for that year. The exception to this is Donlin Gold for which annual totals were used.

This approach allows cross-project comparison and statewide demand aggregation while maintaining transparency regarding assumptions.

E.4 Project-Specific Schedule and Workforce Assumptions

The following summarizes the core schedule and workforce assumptions embedded in the models for each project.

PROJECT-SPECIFIC SCHEDULE & WORKFORCE ASSUMPTIONS						
PROJECT	**DEVELOPMENT STATUS AT TIME OF MODELING**	**SCHEDULE BASIS USED IN MODEL**	**WORKFORCE ANCHOR BASIS**	**SEASONAL CONSTRUCTION CONSTRAINTS REFLECTED**	**RELATIVE SCHEDULE CERTAINTY**	**SCENARIO RISK LEVEL**
Alaska LNG (Phase 1 & 2)	Pre-FID phased development structure	Publicly described phased sequencing; pipeline-first followed by LNG facilities	Publicly discussed peak employment magnitudes from prior project iterations; distributed across phased structure	Moderate – Arctic and remote construction considered in sequencing	Moderate	Medium
Donlin Gold	Permitting ongoing; construction contingent on federal review completion	Assumed construction start following environmental review completion; multi-year build followed by operations	Public employment range discussed in project materials; modeled within that range	High – Remote Alaska seasonal construction reflected	Low to Moderate	High
Graphite One (Alaska operations)	Permitting and financing pending	Assumed construction window contingent on permitting; operations modeled post-commissioning	Publicly stated workforce targets for operations; proportional construction estimate	Moderate – Seasonal construction reflected	Low to Moderate	High
USACE Barrow Seawall	Federally funded multi-phase coastal protection project	Public phase sequencing; multi-year Arctic construction cycles	Modeled peak quarter and annual levels consistent with phase structure	High – June–October Arctic marine window	Moderate	Medium

PROJECT-SPECIFIC SCHEDULE & WORKFORCE ASSUMPTIONS						
PROJECT	**DEVELOPMENT STATUS AT TIME OF MODELING**	**SCHEDULE BASIS USED IN MODEL**	**WORKFORCE ANCHOR BASIS**	**SEASONAL CONSTRUCTION CONSTRAINTS REFLECTED**	**RELATIVE SCHEDULE CERTAINTY**	**SCENARIO RISK LEVEL**
USACE Port of Nome Expansion	Multi-phase marine expansion; phased federal execution	Public phase descriptions including overlapping early phases	Modeled peak quarter and annual levels based on phase intensity	High – Marine construction season reflected	Moderate	Medium
West Susitna 22-mile Corridor	Defined corridor under development	Road construction sequencing based on defined corridor scope	Modeled peak workforce proportional to corridor length and construction intensity	Moderate – Rural seasonal road construction reflected	Moderate	Medium
West Susitna 78.5-mile Corridor	Early-stage, higher uncertainty scenario	Conceptual construction sequencing reflecting extended corridor scope	Modeled scenario-based peak workforce proportional to expanded scope	Moderate – Seasonal construction reflected	Low	High
Ambler Access Project	Permitting complete but subject to legal and federal administrative uncertainty	Assumed construction sequencing based on publicly available project descriptions; multi-year road construction in remote Arctic conditions	Modeled peak workforce based on comparable remote road construction projects and publicly discussed employment ranges	High – Arctic seasonal construction constraints (limited winter access and short summer construction window) reflected	Low to Moderate	High

E.4.1 Alaska LNG (Phased Development Structure)

The AKLNG model reflects a phased development structure consisting of:

- Phase 1: Pipeline-first development
- Phase 2: LNG facility and associated infrastructure

Because an official phased workforce breakdown was not available, the model uses publicly discussed workforce anchors from prior project iterations and distributes them across the phased structure consistent with construction sequencing.

Modeled peak anchors:

- Phase 1 peak: approximately 4,200 workers (Q3 2027)
- Phase 2 peak: approximately 4,500 workers (Q2 2029)

The model reflects:

- Multi-year ramp-up and taper periods
- Distinct peak windows for pipeline and facility construction
- Overlapping transition between Phase 1 completion and Phase 2 escalation

Limitations:

- No access to contractor-level crew structures
- No EPC execution plan staffing tables
- Phasing subject to change pending Final Investment Decision

E.4.2 Donlin Gold

The Donlin model reflects:

- Construction contingent upon completion of federal environmental review
- A multi-year construction period followed by long-term operations

Modeled anchors:

- Construction peak approximately 2,490 workers (annual)

The model reflects seasonal construction in remote Alaska, with concentrated summer activity and reduced winter workforce presence.

Limitations include uncertainty regarding Final Investment Decision timing and the absence of sponsor-provided trade breakdowns.

E4.3 Graphite One (Alaska Operations)

The Graphite One model reflects:

- Construction assumed within a 2028–2030 window, contingent on permitting and financing
- Seasonal construction activity
- Year-round operations following commissioning

Modeled anchors:

- Construction peak approximately 250 workers

Workforce distribution reflects typical mining construction and operations structures.

E.4.4 USACE Barrow Seawall

The Barrow Seawall model reflects:

- Multi-phase coastal revetment sequencing
- Repeating annual Arctic construction windows
- Seasonal mobilization and demobilization

Modeled anchors:

- Peak quarter approximately 110 workers

The model reflects June–October primary construction windows and reduced winter activity.

E.4.5 USACE Port of Nome Expansion

The Nome model reflects:

- Multi-phase marine expansion
- Overlapping Phase 1A construction and dredging peaks
- Sequential later phases

Modeled anchors:

- Peak quarter approximately 280 workers

Construction activity is concentrated in May–October marine seasons with winter skeleton staffing.

E.4.6 Susitna Road Access

Two corridor scenarios are modeled:

- 22-mile corridor (more defined development pathway)
- 78.5-mile corridor (earlier-stage, higher uncertainty)

Combined modeled peak:

- Peak quarter scenario approximately 150 workers

The 78.5-mile scenario is more speculative and subject to substantial schedule variability.

E.5 Occupational Allocation Methodology

Key clarifications:

- Occupational allocation reflects standard construction and industrial trade
- Allocation is proportional and normalized to total modeled
- It does not represent contractor crew sheets or hiring
- Trade mix varies by project type (pipeline, marine, mining, heavy
- Where public employment totals were available, those totals were preserved before occupational distribution

E.6 Seasonality and Concurrency

Several modeled projects operate within constrained construction seasons due to Arctic or marine conditions.

These seasonal patterns produce:

- Concentrated second and third quarter peaks
- Repeating annual mobilization cycles
- Heightened overlap risk when multiple projects peak concurrently

Overlay of modeled schedules indicates significant concurrency potential during the 2027–2029 window, when multiple heavy civil and industrial projects reach peak activity.

E.7 Workforce Metrics Used in This Study

This report distinguishes between:

- Peak concurrent workforce: Maximum workers active in a given quarter
- Peak annual workforce: Maximum workers active during a calendar year
- Operations workforce: Sustained long-term employment following construction

All tables and graphics specify which metric is presented.

E.8 Limitations

The following limitations apply to the modeled projections:

- Workforce projections are planning estimates derived from public information
- Project schedules remain subject to permitting, financing, and Final Investment Decision timing
- Contractor-specific execution strategies may materially alter trade composition
- Occupational allocation represents proportional distribution rather than confirmed hiring plans
- Aggregated statewide projections reflect modeled concurrency rather than confirmed overlap

Training capacity estimates are subject to additional limitations:

- Not all providers responded to the survey
- Some capacity values are estimated using standardized assumptions
- Instructor availability, facility constraints, and funding may limit actual throughput
- Apprenticeship estimates reflect potential scaling, not current enrollment levels
- Data gaps exist for certain programs (e.g., CDL, welding)

E.9 Role of Appended Workbooks

The workbooks included in this appendix provide:

- Detailed schedule phasing assumptions
- Quarterly and annual workforce distributions
- Occupational breakdown tables
- Scenario variations where applicable

They constitute the technical basis for the workforce demand analysis presented in this report.

E.10 Training Capacity Data Sources and Methodology

E.10.1 Confirmed Training Provider Data

Training capacity data was collected through survey responses and direct outreach.

E.10.2 Estimated Training Capacity (Non-Responding Providers)

PROVIDER	ASSUMPTION BASIS	ESTIMATED ANNUAL CAPACITY
Kenai Peninsula Driving Instruction & Alaska Driving Academy	Used 2024 data from DMV citing total number of CDL tests conducted: 415. Total tests distributed for modeling purposes.	200 / 144

E.10.3 University-Based Estimates

Capacity estimates for UAA and UAS were developed using 2024–2025 enrollment data as a proxy for annual output.

E.10.4 Apprenticeship Capacity Estimation

Due to limited reporting, apprenticeship capacity was estimated using federal data from the U.S. Department of Labor Apprenticeship Data Dashboard.

Methodology:

- Identify highest annual new apprentice registrations (2020–2025)
- Multiply the highest year by 2 to estimate scalable capacity

Example:

Carpenters (2023): 79 new apprentices → Estimated capacity: 158

Trades included:

- Carpenters
- Equipment Operators (split with mechanics where applicable)
- Construction Laborers
- Plumbing
- Electricians
- Diesel Mechanics (split with operators where applicable)

E.11 Summary of Key Assumptions

- Annual workforce values reflect peak quarterly demand within each year (with the exception of Donlin Gold, reflected annually)
- Training capacity reflects potential throughput, not guaranteed completions
- Estimated values are used where direct data is unavailable
- Apprenticeship capacity reflects expansion potential rather than baseline output
- Data gaps likely result in conservative (underestimated) capacity totals

Appendix F

University & College Training Provider Overview

Purpose

This appendix provides an overview of institutions contributing to Alaska's workforce development system. It summarizes the University of Alaska system and other key post-secondary providers delivering workforce certificates, technical training, and applied education aligned with priority occupational pathways supporting infrastructure, energy, and resource development.

Campuses – Workforce and Applied Education Infrastructure

The University of Alaska (UA) system forms the backbone of Alaska's public postsecondary education and workforce development infrastructure. Through its three separately accredited universities—University of Alaska Anchorage, University of Alaska Fairbanks, and University of Alaska Southeast—the system delivers academic degrees, applied technical training, workforce certificates, apprenticeship support, and industry-aligned credentials across a geographically diverse state.

In addition to main campuses, the UA system operates community campuses and rural centers that expand access to occupational training in regions where standalone technical institutions are limited. Collectively, these campuses support priority workforce sectors including construction, energy, aviation, maritime, healthcare, education, information technology, and resource development.

REGION	INSTITUTION	LOCATION(S)	WORKFORCE & APPLIED PROGRAM FOCUS
Interior	University of Alaska Fairbanks (UAF)	Fairbanks	Resource development, engineering, energy systems, Arctic research, mining, construction management, applied sciences
Interior	UAF Community & Technical College (CTC)	Fairbanks	Construction trades, diesel & heavy equipment technology, welding, applied business, emergency services, technical certifications
Interior	UAF Bristol Bay Campus	Dillingham	Education, health, fisheries, environmental studies, regionally responsive workforce programming
Interior	UAF Chukchi Campus	Kotzebue	Vocational coursework, adult education, employer-aligned workforce training
Interior	UAF Interior Alaska Campus (IAC)	Rural Interior	Distance delivery, career readiness, adult education, certificate pathways
Interior	UAF Kuskokwim Campus	Bethel	Education, health fields, applied business, vocational workforce programming
Southcentral	University of Alaska Anchorage (UAA)	Anchorage	Healthcare, aviation, engineering, construction management, cybersecurity, applied technologies
Southcentral	UAA Community & Technical College	Anchorage	Aviation maintenance, construction technology, culinary arts, IT/networking, occupational endorsements
Southcentral	UAA Kenai Peninsula College	Kenai, Soldotna, Homer	Maritime industries, oil & gas support services, healthcare, business
Southcentral	UAA Kodiak College	Kodiak	Maritime industries, fisheries, education, applied degree pathways

REGION	INSTITUTION	LOCATION(S)	WORKFORCE & APPLIED PROGRAM FOCUS
Southcentral	UAA Prince William Sound College	Valdez & Cordova	Maritime, fisheries, construction, occupational endorsements, technical certificates
Southcentral	Alaska Pacific University	Anchorage	Nursing, marine & environmental sciences, health sciences, place-based and community education
Southeast	University of Alaska Southeast (UAS)	Juneau	Business, education, public administration, career education fields
Southeast	UAS Career Education	Juneau, Ketchikan, Sitka	Construction, welding, power technology, drafting & design, maritime studies
Southeast	UAS Ketchikan Campus	Ketchikan	Marine transportation, business, technical certificates
Southeast	UAS Sitka Campus	Sitka	Maritime fields, healthcare pathways, community workforce education
Arctic	Iḷisaġvik College	Utqiaġvik	Construction, industrial technology, energy, environmental science, health fields

Appendix G

Regional, Technical & Vocational Training Provider Overview

Purpose

This appendix provides an overview of regional training centers, vocational institutions, and workforce development organizations contributing to Alaska's workforce training infrastructure. These providers deliver industry-aligned occupational training and credentials across Alaska's diverse regions, expanding access to workforce pathways in communities where geographic isolation and infrastructure limitations affect participation.

REGION	PROVIDER	LOCATION	PROVIDER TYPE	WORKFORCE & PROGRAM FOCUS
Interior	Alaska Technical Center (ATC)	Kotzebue	Regional training center	Construction trades, residential electrical, heavy equipment, maintenance training, industry certifications
Interior	Delta Career Advancement Center	Delta Junction	Regional workforce center	Career readiness, occupational skills, industry-responsive training partnerships
Interior	Fairbanks Pipeline Training Center (FPTC)	Fairbanks	Labor-management training trust	Pre-apprenticeship and apprenticeship training for pipeline, oil & gas, and heavy construction
Interior	Galena Interior Learning Academy (GILA)	Galena	Residential CTE high school	Aviation, welding, automotive technology, carpentry, culinary arts, health sciences
Interior	UAF Community & Technical College	Fairbanks	University technical college	Skilled trades, industrial technologies, applied business, apprenticeship support
Interior	Amundsen Education Center	Kotzebue	Regional workforce training provider	Workforce readiness, vocational training, community-based education
Southcentral	MAPTS (Mat-Su Career & Technical Education Consortium)	Mat-Su	Secondary CTE consortium	Construction trades exploration, dual credit pathways, technical education
Northwest	Northwestern Alaska Career & Technical Center (NACTEC)	Nome	Regional CTE center	Career exploration, introductory trades, workforce readiness
Southcentral	Alaska Career College	Anchorage	Private vocational institution	Healthcare, business administration, information technology
Southcentral	AVTEC – Alaska's Institute of Technology	Seward	State-operated technical institute	Construction technology, welding, industrial electricity, diesel & heavy equipment, plumbing, IT, culinary
Southcentral	Charter College	Anchorage	Private career college	Healthcare, business, information technology

REGION	PROVIDER	LOCATION	PROVIDER TYPE	WORKFORCE & PROGRAM FOCUS
Southcentral	Don Young Alaska Job Corps Center	Palmer	Federal residential training program	Construction trades, facilities maintenance, career readiness (status to be confirmed)
Statewide	Northern Industrial Training (NIT)	Statewide	Private vocational provider	Skilled trades, industrial safety, transportation, construction, industry certifications
Southcentral	UAA Community & Technical College	Anchorage	University technical college	Aviation maintenance, construction technology, culinary arts, IT, applied technical leadership
Southcentral	Kenai Peninsula Driving Academy	Kenai Peninsula	Private vocational provider	Commercial driver training, transportation workforce preparation
Southcentral	Alaska Driving Academy	Anchorage / Southcentral	Private vocational provider	CDL training, transportation certifications, workforce entry programs
Southeast	AKA Hauling	Southeast Alaska	Private vocational provider	Commercial driving, heavy hauling, transportation workforce development
Southeast	Southeast Trucking	Southeast Alaska	Private vocational provider	CDL and transportation training aligned with regional freight and logistics
Southwest	Southwest Alaska Vocational & Educational Center (SAVEC)	King Salmon	Regional vocational center	Workforce readiness, industry certifications, fisheries, construction, local government employment
Southwest	Yuut Elitnaurviat, Inc.	Bethel	Tribal workforce organization	Construction training, industry certifications, employment services
Southeast	CCTHITA Generations Southeast	Prince of Wales Island	Tribal workforce provider	Workforce development, skills training, culturally grounded education
Southeast	Sealaska Heritage Institute	Juneau	Tribal nonprofit workforce provider	Workforce readiness, cultural competency, community economic development
Southeast	UAS Career Education	Juneau, Ketchikan, Sitka	University technical education	Construction, welding, drafting, power technology, maritime training
Statewide	Partners for Progress	Statewide	Workforce nonprofit / intermediary	Career readiness, employment support, workforce development coordination

Appendix H

Registered Apprenticeships Overview

Purpose

This appendix provides an overview of Registered Apprenticeship in Alaska as a primary workforce pathway into skilled construction and industrial trades supporting infrastructure, energy, and resource development projects. Apprenticeship programs combine paid on-the-job training with related technical instruction and are delivered through joint labor-management training trusts, employers, and approved training providers. Because apprenticeship capacity is closely tied to construction cycles, employer demand, and training infrastructure, these programs represent a critical component of Alaska's resident workforce development and project readiness strategy.

ORGANIZATION / SPONSOR	LOCATION / COVERAGE	TRADE / OCCUPATIONAL FOCUS	DESCRIPTION
IBEW Electrical Apprenticeship & Training Trust	Fairbanks / Statewide	Electrical (Inside Wireman, Industrial Electrical)	Provides registered apprenticeship and related instruction supporting electrical construction and industrial maintenance occupations
Operating Engineers Apprenticeship	Statewide	Heavy equipment operation	Supports apprenticeship pathways for equipment operators involved in excavation, grading, and heavy civil construction
Laborers Union Local 71	Southcentral Alaska	Construction laborers	Provides apprenticeship and training supporting site preparation, environmental controls, and general construction labor
Laborers Union Local 341	Fairbanks / Interior	Construction laborers	Supports Interior Alaska workforce preparation in heavy construction and industrial labor occupations
Laborers Union Local 942	Statewide	Construction laborers	Provides apprenticeship training supporting pipeline and heavy construction workforce needs
Anchorage Plumbers & Pipefitters Local 367	Anchorage	Plumbing / pipefitting	Delivers apprenticeship training for mechanical piping systems and industrial construction
Fairbanks Plumbers & Pipefitters JATC	Fairbanks	Plumbing / pipefitting	Joint apprenticeship committee supporting Interior Alaska mechanical trades workforce development
Juneau Plumbers & Pipefitters Local 262	Southeast Alaska	Plumbing / mechanical trades	Provides training in support of plumbing and mechanical trades
Boilermakers Local 502	Statewide	Boilermaking / welding	Provides training in support of boilermaking and welding
Teamsters / Center for Employment Education	Statewide	Transportation / CDL	Provides training in support of transportation and CDL
Associated Builders & Contractors Alaska	Statewide	Multi-trade open-shop apprenticeship	Supports employer-sponsored apprenticeship pathways across construction trades

ORGANIZATION / SPONSOR	LOCATION / COVERAGE	TRADE / OCCUPATIONAL FOCUS	DESCRIPTION
Ironworkers Local 751	Statewide	Structural steel / reinforcing steel	Provides apprenticeship training supporting structural steel erection and industrial construction
Carpenters Local 1281 Training Center	Anchorage	Carpentry	Delivers apprenticeship training supporting structural carpentry and formwork
Carpenters Local 1243 Training Center	Fairbanks	Carpentry	Provides Interior Alaska apprenticeship training in carpentry and related trades
Electrical Workers (IBEW affiliates)	Statewide	Electrical trades	Supports apprenticeship pathways across electrical construction and industrial maintenance occupations
Millwright Apprenticeship	Statewide	Industrial maintenance / millwright	Provides apprenticeship training supporting industrial installation and mechanical systems
Insulators Local 97	Statewide	Mechanical insulation	Supports apprenticeship training for thermal and acoustic insulation occupations
Piledrivers & Divers Local 2520	Statewide	Marine construction / diving	Provides apprenticeship training supporting marine infrastructure and offshore construction
Fairbanks Alaska Trowel Trades Training Center	Fairbanks	Cement masons / plasterers	Supports apprenticeship training in concrete finishing and masonry trades
Anchorage Trowel Trades Training Center	Anchorage	Cement masons / plasterers	Provides apprenticeship training supporting structural concrete occupations
Painters & Allied Trades Joint Apprenticeship	Statewide	Industrial coating / finishing	Delivers apprenticeship training supporting painting, coating, and finishing occupations
AFL-CIO Alaska	Statewide	Labor federation support	Supports coordination and advocacy across union apprenticeship programs
State of Alaska Apprenticeship Coordinator	Statewide	Program oversight	Provides administrative oversight and coordination of registered apprenticeship programs
Alaska Works Partnership	Statewide	Pre-apprenticeship / workforce readiness	Supports pre-apprenticeship, outreach, and workforce entry into registered apprenticeship programs
Alaska Metal & Mechanical	Statewide	Mechanical / industrial trades	Supports apprenticeship and workforce training across metal and mechanical occupations
Western States Regional Council of Carpenters (WSRCC)	Statewide	Carpentry, piledriving, diving, millwright, scaffolding	Provides multi-trade apprenticeship training supporting heavy construction and industrial projects

Appendix I

Secondary School Districts Overview

Purpose

This appendix provides an overview of Alaska's secondary school districts and their geographic coverage as part of the state's workforce pipeline. Secondary education plays a foundational role in career awareness, CTE exposure, and early workforce pathway development supporting long-term resident participation in high-demand occupations.

SCHOOL DISTRICT	REGION / COMMUNITIES SERVED	ENROLLMENT / NOTES
Alaska Gateway SD	Tok, Delta Junction, Northway	~380 students across 7 schools
Aleutian Region SD	Adak, Atka	Very small enrollment (~20–25 students)
Aleutians East Borough SD	Sand Point, King Cove	Under ~200 students
Anchorage SD	Anchorage, Eagle River	~42,500 students; largest district
Annette Island SD	Metlakatla	Under 300 students
Bering Strait SD	Nome-area villages	~2,000 students
Bristol Bay Borough SD	Naknek, King Salmon	~200–300 students
Chatham SD	Hoonah, Angoon, Pelican	Under 200 students
Chugach SD	Chenega Bay, Tatitlek	Very small village enrollments
Copper River SD	Glennallen, Chistochina	Below 500 students
Cordova City SD	Cordova	Several hundred students
Craig City SD	Craig	Community-based K–12 schools
Delta/Greely SD	Delta Junction area	~400–500 students
Denali Borough SD	Healy area	Under 500 students
Dillingham City SD	Dillingham	~300–400 students
Fairbanks North Star Borough SD	Fairbanks, North Pole	~11,400 students
Galena City SD	Galena area	Under 200–300 students
Haines Borough SD	Haines	Under 500 students
Hoonah City SD	Hoonah	Under 200 students
Hydaburg City SD	Hydaburg	Under 100–150 students
Iditarod Area SD	Interior villages	Small rural enrollment
Juneau SD	Juneau	~3,000–4,000 students
Kake City SD	Kake	Under 300 students
Kashunamiut SD	Kusilvak Census Area	Few hundred students
Kenai Peninsula Borough SD	Kenai, Soldotna, Homer	~8,300 students
Ketchikan Gateway Borough SD	Ketchikan	~2,000+ students
Klawock City SD	Klawock	Under 200–300 students

SCHOOL DISTRICT	REGION / COMMUNITIES SERVED	ENROLLMENT / NOTES
Kodiak Island Borough SD	Kodiak Island	~2,500+ students
Kuspuk SD	Bethel-area villages	Small rural enrollment
Lake & Peninsula Borough SD	Southwest Alaska villages	Small rural enrollment
Lower Kuskokwim SD	Bethel region villages	~4,000+ students
Lower Yukon SD	Mountain Village, Emmonak	~350–400 students
Matanuska-Susitna Borough SD	Wasilla, Palmer, Talkeetna	~15,000+ students
Mount Edgecumbe HS	Sitka (statewide residential)	~150–200 students
Nenana City SD	Nenana	Under 300 students
Nome Public Schools	Nome	~1,000–1,500 students
North Slope Borough SD	Utqiagvik, Wainwright	~2,000+ students
Northwest Arctic Borough SD	Kotzebue region	~2,000+ students
Pelican City SD	Pelican	<100 students
Petersburg Borough SD	Petersburg	~800–900 students
Pribilof SD	St. Paul, St. George	~30–50 students
Saint Mary's SD	Saint Mary's	Under 200 students
Sitka SD	Sitka	~1,000–1,500 students
Skagway SD	Skagway	~100–200 students
Southeast Island SD	Prince of Wales communities	~164 students
Southwest Region SD	Southwest villages	Small rural enrollment
Tanana City Schools	Tanana	Under 200 students
Unalaska City SD	Unalaska, Dutch Harbor	~250–400 students
Valdez City SD	Valdez	~1,000+ students
Wrangell Public SD	Wrangell	~500–700 students
Yakutat SD	Yakutat	Under 300 students
Yukon Flats SD	Fort Yukon, Beaver	Few hundred students
Yukon-Koyukuk SD	Interior villages	~500+ students
Yupiit SD	Akiak, Akiachak area	~1,000–1,500 students

Appendix J

Alaska Native Education & Training Foundations

Purpose:

Alaska Native Education and Training Foundations are key partners in Alaska's workforce system. Established under the Alaska Native Claims Settlement Act, they support shareholders through scholarships, education funding, career readiness programs, and employment services.

While not typically direct training providers, they connect residents—especially in rural communities—to postsecondary education, apprenticeships, vocational training, and job opportunities, strengthening statewide workforce participation.

ORGANIZATION	REGION SERVED	ORGANIZATION TYPE	PRIMARY WORKFORCE ROLE	KEY WORKFORCE CONTRIBUTIONS
Ahtna, Incorporated	Copper River / Interior Alaska	Regional Native Corporation	Workforce intermediary	Scholarships, career readiness, apprenticeship connections, employer partnerships
Doyon Foundation	Interior Alaska	Education foundation (regional corporation affiliate)	Education and workforce support	Scholarships, vocational funding, career counseling, training assistance
Arctic Education Foundation	North Slope / Arctic	Education foundation (ASRC affiliate)	Workforce pathway support	Scholarships, workforce training funding, career development programming
Bristol Bay Native Corporation	Bristol Bay / Southwest Alaska	Regional Native Corporation	Workforce intermediary	Scholarships, employment initiatives, workforce development partnerships
Koniag, Inc.	Kodiak / Gulf Coast	Regional Native Corporation	Workforce intermediary	Education funding, training partnerships, employment initiatives
Bering Straits Native Corporation	Bering Strait Region	Regional Native Corporation	Workforce intermediary	Training partnerships, employment services, regional workforce development
NANA Regional Corporation	Northwest Arctic	Regional Native Corporation	Workforce intermediary	Apprenticeship coordination, training partnerships, employment initiatives
The Aleut Foundation	Aleutian Region	Regional Native Corporation	Workforce intermediary	Scholarships, career readiness, workforce support services
CIRI Foundation	Southcentral Alaska	Education foundation (CIRI affiliate)	Education and workforce support	Postsecondary funding, training assistance, career development services
Sealaska Heritage Institute	Southeast Alaska	Regional Native Corporation	Workforce intermediary	Scholarship programs, workforce initiatives, employment partnerships
Calista Corporation	Yukon–Kuskokwim Delta	Regional Native Corporation	Workforce intermediary	Education funding, workforce readiness, employment support programs

ORGANIZATION	REGION SERVED	ORGANIZATION TYPE	PRIMARY WORKFORCE ROLE	KEY WORKFORCE CONTRIBUTIONS
Chugach Heritage Foundation	Prince William Sound	Regional Native Corporation	Workforce intermediary	Scholarships, training assistance, employment development initiatives
Knik Tribe	Southcentral Alaska / Mat-Su	Tribal government	Workforce support provider	Training referrals, employment assistance, education funding, career services
Cook Inlet Tribal Council (CITC)	Anchorage / Southcentral Alaska	Tribal nonprofit workforce provider	Direct workforce training and employment services	Career readiness, vocational training, apprenticeships, youth employment, wraparound services
Yuut Elitnaurviat	Yukon–Kuskokwim Delta (Bethel)	Tribal nonprofit training center	Direct workforce training provider	Vocational training, adult education, construction trades training, career readiness, regional workforce development
Beringia Settlement Trust Scholarship Program	Statewide (Beringia beneficiaries)	Settlement trust scholarship program	Education and workforce support	Postsecondary scholarships, vocational training funding, education access support
Aqquluk Trust	Northwest Arctic (NANA region beneficiaries)	Settlement trust	Education and workforce support	Scholarships, training funding, career development support, workforce participation assistance

Appendix K

Additional Resources

Purpose

This appendix provides a compilation of publicly accessible career, training, and labor market information resources used to support workforce planning, career exploration, and training investment decisions in Alaska. These resources offer data on occupations, wages, employment projections, training providers, and apprenticeship opportunities relevant to workforce development and Alaska Hire strategies.

RESOURCE	WEBSITE	DESCRIPTION
Alaska Department of Labor & Workforce Development (DOLWD)	labor.alaska.gov	Provides statewide labor market information including occupational projections, wage data, industry trends, and employment statistics. The Research and Analysis Section publishes short- and long-term employment forecasts supporting workforce modeling
Alaska Training Clearinghouse (ALEXsys)	alexsys.dol.alaska.gov	Statewide workforce platform connecting job seekers, employers, and training providers through job listings, resume tools, apprenticeship information, and training program searches
WIOA Eligible Training Provider List (ETPL)	Administered through DOLWD	Identifies training programs approved to receive Workforce Innovation and Opportunity Act funding, providing transparency regarding provider performance and credential outcomes
Alaska Career Information System (AKCIS)	akcis.intocareers.org	Online career exploration platform offering career assessments, occupational information, wage data, education pathways, and Alaska-specific labor market insights
Alaska Commission on Postsecondary Education (ACPE)	acpe.alaska.gov	Oversees postsecondary authorization and state financial aid programs and maintains directories of authorized training providers and institutions
University of Alaska Career Coach (UAA Career Coach)	uaa.emsicc.com	Links University of Alaska academic programs to local labor market demand, providing wage data, employment outlook information, and program alignment tools
Alaska Workforce Investment Board (AWIB)	awib.alaska.gov	Coordinates statewide workforce policy and planning and provides workforce plans, funding summaries, and Technical and Vocational Education Program resources
CareerOneStop	careeronestop.org	U.S. Department of Labor platform providing national and state occupational data, wage statistics, skills assessments, and apprenticeship listings
U.S. Bureau of Labor Statistics (BLS)	bls.gov	Provides employment data, wage statistics, and industry projections supporting comparative economic analysis at state and national levels

Appendix L

Sources

CITATIONS	
SOURCE NUMBER	**SOURCE**
1	Alaska Gasline Development Corporation (AGDC). Alaska LNG Project Overview https://agdc.us/alaska-lng
2	Federal Energy Regulatory Commission (FERC). Alaska LNG Project Authorization https://www.ferc.gov
3	Glenfarne Group. Alaska LNG Project Announcements and Filings https://www.glenfarne.com
4	Alaska LNG Gasline Workforce Plan (2018) https://jobs.alaska.gov/energy/documents/2018_gasline_workforce_plan.pdf
5	Northern Economics / AGDC. Potential Economic and Job Benefits of the Alaska LNG Project
6	Appendix E. Megaproject Workforce Model and Modeling Assumptions.
7	Alaska Department of Labor and Workforce Development. Labor Force Data https://live.laborstats.alaska.gov/data-pages/labor-force-home
8	Alaska Department of Labor and Workforce Development. Current Nonfarm Employment by Industry (CES) https://live.laborstats.alaska.gov/labforce/000000/01/ces.html
9	Alaska Department of Labor and Workforce Development Occupational Projections 2022–2032.https://live.laborstats.alaska.gov/occfcst/occupations
10	Alaska Industry and Occupational Projections 2022–2032 (Trends). https://live.laborstats.alaska.gov/trends-magazine/2024/October/alaska-industry-and-occupational-projections-for-2022-2032
11	Alaska Department of Labor and Workforce Development. Nonresidents Working in Alaska 2023
12	Alaska Department of Labor and Workforce Development. Statewide Jobs Forecast for 2025
13	Alaska Department of Labor and Workforce Development. Alaska Economic Trends Series (2018–2025)
14	Alaska Department of Labor and Workforce Development. Alaska Economic Trends: Construction and Labor Availability (June 2024)
15	Workforce 2030: The Alaska Plan Workforce Shortages and Demographic Change
16	Alaska Business Magazine Nonresident Hire Rises Amid Workforce Shortage
17	Alaska Business Magazine 2023 Alaska Economic Forecast
18	Anchorage Economic Development Corporation. Economic Forecast 2024
19	EB3 Workforce. Labor Shortage in Alaska: Causes, Impacts, and Solutions
20	Berry, Kevin. Workforce Trends in Alaska. Presentation to AML
21	Alaska Legislature. Alaska's Construction Industry
22	McDowell Group. Economic Benefits of Alaska's Construction Industry
23	RDC / McKinley Research Group. Economic Benefits of Alaska's Construction Industry – Info Sheet
24	KUAC. Estimates say Alaska LNG would create thousands of jobs
25	WeBuildAlaska.com – Construction workforce resources

CITATIONS	
SOURCE NUMBER	SOURCE
26	U.S. Bureau of Labor Statistics. Local Area Unemployment Statistics
27	U.S. Bureau of Labor Statistics. Median Age by Occupation Group
28	U.S. Bureau of Labor Statistics. CPS Demographic Tables
29	U.S. Bureau of Labor Statistics. OEWS Alaska Data
30	U.S. Bureau of Labor Statistics. OEWS Technical Notes
31	Bureau of Land Management. Donlin Gold FEIS
32	Bureau of Land Management. Donlin Gold SEIS
33	Donlin Gold LLC. Project Overview and Technical Reports
34	Graphite One Inc. Feasibility Study and Corporate Filings
35	U.S. SEC. Graphite One Filings
36	U.S. Geological Survey. Critical Minerals List and Graphite Documentation
37	Bureau of Land Management. Ambler Access Project EIS
38	Alaska Industrial Development and Export Authority. Ambler Access Project
39	U.S. Army Corps of Engineers. Port of Nome Modification Project
40	U.S. Army Corps of Engineers. Nome General Investigation Study
41	U.S. Army Corps of Engineers. Barrow Coastal Erosion Project
42	U.S. Army Corps of Engineers. Arctic Coastal Erosion and Protection Reports
43	Alaska Department of Natural Resources. West Susitna Access Project Materials
44	Alaska Industrial Development and Export Authority. West Susitna Transportation Corridor
45	Santos Ltd. Pikka Phase 1 Development Updates
46	Alaska Department of Revenue. North Slope Oil Development Reporting
47	U.S. Department of the Interior. Willow Project Record of Decision
48	ConocoPhillips Alaska. Willow Project Development Materials
49	Alaska Landmine. Rig 26 Incident Reporting
50	Alaska Department of Environmental Conservation. North Slope Incident Updates
51	Alaska Native Claims Settlement Act (ANCSA)
52	Ahtna, Inc. Corporate Information
53	Doyon, Limited Corporate Information
54	Arctic Slope Regional Corporation
55	Bering Straits Native Corporation
56	NANA Regional Corporation
57	Sealaska Corporation
58	Calista CorporationCalista Corporation

CITATIONS	
SOURCE NUMBER	**SOURCE**
59	Bristol Bay Native Corporation
60	Koniag, Inc
61	The Aleut Corporation
62	Chugach Alaska Corporation
63	Cook Inlet Region, Inc
64	Alaska Department of Labor and Workforce Development. Registered Apprenticeship Program
65	Alaska Joint Electrical Apprenticeship and Training Trust
66	UA Local 367 and affiliated apprenticeship committees
67	Alaska Operating Engineers Apprenticeship and Training Trust
68	AVTEC – Alaska Vocational Technical Center
69	Northwestern Alaska Career & Technical Center
70	Alaska Technical Center
71	Southwest Alaska Vocational and Education Center
72	University of Alaska System – Campus Directory
73	Alaska Pacific University – Institutional Information
74	Ilisagvik College – Institutional Overview
75	Alaska Department of Education & Early Development – School District Directory
76	Charter College
77	Alaska Career College
78	Alaska Working Age Population (Spreadsheet from DOL - Research and Analysis)