

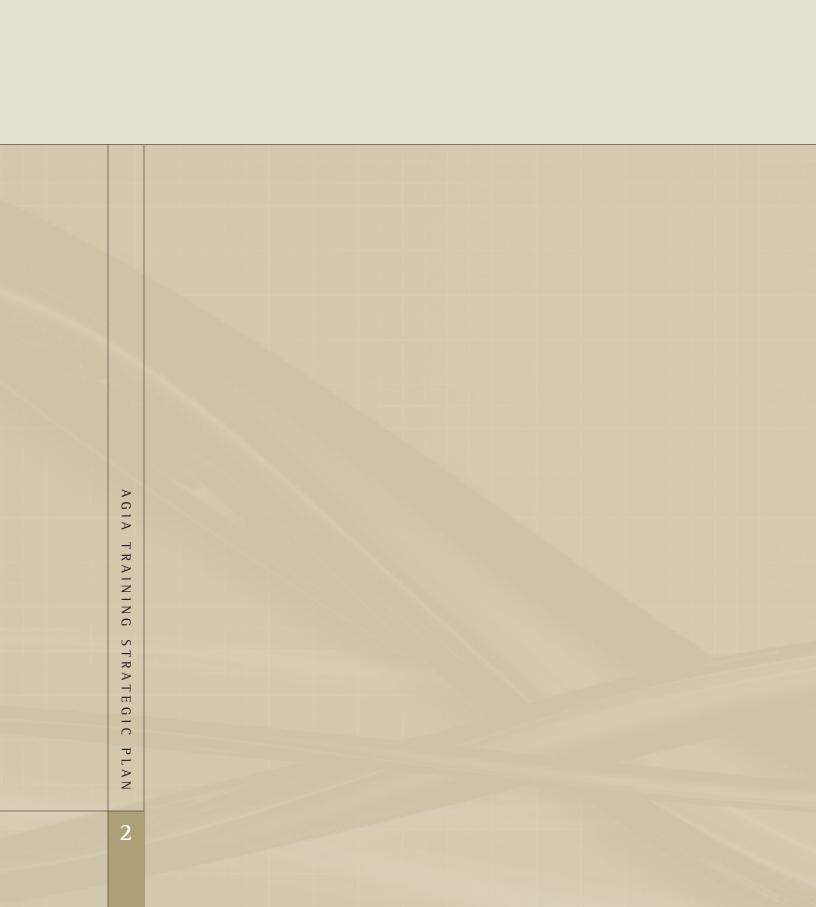






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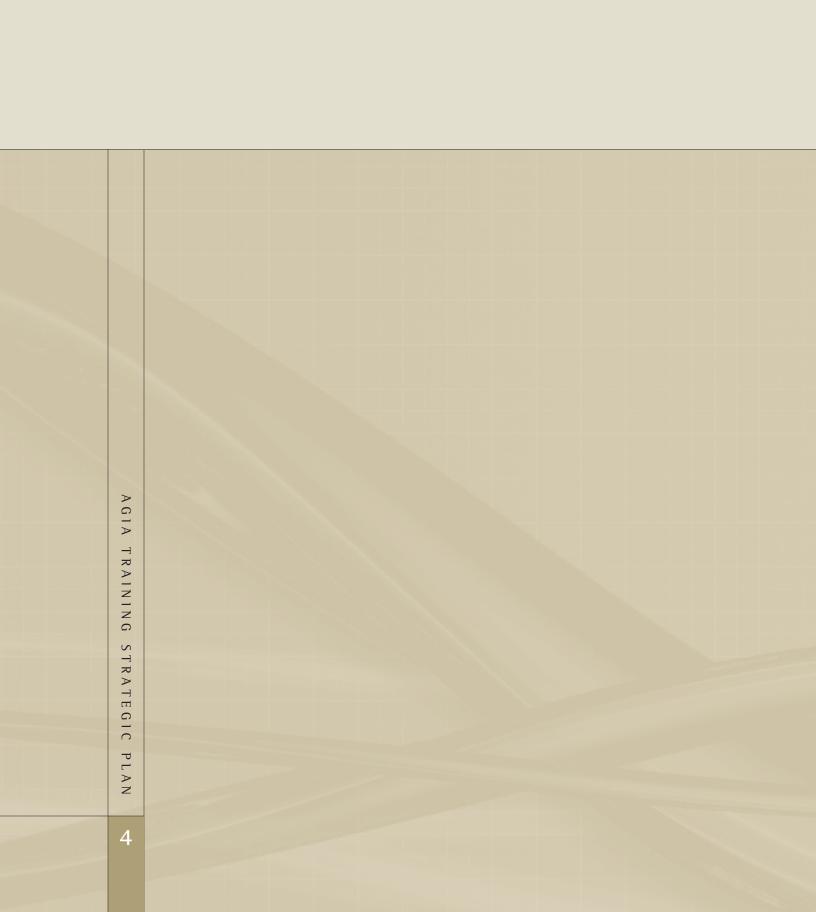
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Executive Summary

AGIA Training Strategic Planning Document: A Call to Action

The Need: Close the Alaskan Skills Gap

Alaska stands at a crossroad of vital need and compelling opportunity. The state is in its twentieth year of steady economic growth with 48,000 new jobs projected by 2014, however in some regions unemployment is among the highest in the nation, and is ranked fifth in the nation for teens not in school and not working. Vast supplies of oil, gas, and minerals make Alaska one of the most resource rich regions in the world, yet the state faces a workforce skills gaps in critical occupations where there are either a high number of non-residents, or a significant percent are over the age of 45.

The Promise: Put Alaskans To Work

Among the most promising economic drivers is the potential construction of an Alaska gas pipeline, but the state's workforce preparedness system, including public K-12 and post-secondary education, is not meeting current industry demand. Not to be repeated is the fact that when the Trans-Alaska Pipeline System was built 30 years ago, most jobs were filled by nonresidents; Alaska's workforce was simply not prepared. Governor Sarah Palin championed the passage of the Alaska Gasline Inducement Act (AGIA) in 2007. The AGIA statute's call to action is particularly timely as it is widely understood that Alaska's natural resources must be responsibly developed to the maximum benefit of all Alaskans.

The Strategy: AGIA Training To Enhance Existing Programs

The AGIA Training Strategic Planning Document is designed to enhance Alaska's existing training programs so that Alaskans are afforded the opportunity to upgrade skills and acquire new ones in preparation for gasline jobs. The plan identifies four broad strategies to address the workforce needs of the existing labor skills gap and AGIA:

- 1) increase awareness of an access to career opportunities in natural resource development,
- 2) develop a comprehensive, integrated career and technical education system that aligns training institutions and coordinates program delivery,
- 3) increase opportunities for registered apprenticeship in skilled occupations and expand other structured training opportunities, and



4) increase opportunities for development of appropriate training programs for operations, technical, and management workers.

The Plan: Five Years, Three Phases

While this document remains subject to updates, the training plan outlines a five-year strategically phased approach for accomplishing its strategies.

- Phase one establish industry skill standards for training and extend accreditation to regional training centers;
- Phase two is to address the existing "skills gap" and will require significant new investments in public post secondary training programs with significant expansion of registered apprenticeship programs;
- Phase three will require information on the number of jobs created by the gasline project and focus on training for those jobs.

The plan includes the Alaska Department of Labor and Workforce Development

Research and Analysis Section's newly identified 113 AGIA related occupations; future updates will feature more precise job projections and a skills inventory and outreach component to the Alaska Labor Exchange System (ALEXsys), supporting gasline employer recruitment and resident hire.

The Purpose: Anchored In Collaboration and Innovation

The plan's overall purpose is to bring Alaska into a new era of collaboration and innovation among educators and training providers combined with strategic investments in connected, regionally delivered and accredited programs to create world class training and education systems for Alaska. The plan will guide the Alaska Workforce Investment Board about where and how to invest in training.

The Call For Action: Engage Stakeholders To Build Capacity

The call for action now is to engage educators, trainers, sponsors of registered apprenticeship, and business and industry in committing to finance and execute the plan's strategies. The results will transform Alaska's workforce preparedness system, catalyze a spirit of innovation, and ultimately create a new economy, beyond the boom and bust cycle, where new business and industry is encouraged by the state's collective capacity and expertise to train a local workforce.



The Alaska Gasline Inducement Act of 2007 requires that "the Commissioner of Labor and Workforce Development shall develop a job training program that will provide training for Alaskans in gas pipeline project management, construction, operations, maintenance and other gas pipeline related positions" (AS 43.90.470).

To fulfill this charge, Commissioner Click Bishop sought the advice of concerned and knowledgeable Alaskans in identifying strategies that would best prepare the state's workforce for the demands of gas pipeline construction. A cross section of industry, labor, education and state government representatives have been involved in the planning effort. A list of participants is attached as Appendix A.

Participants in the planning process began with an examination of the existing training environment. They quickly determined that although steps have been taken by both government and the private sector to address worker shortages and skill gaps, the system is not meeting current workforce development demands, much less the added demands of AGIA. Participants also realized that there are other major natural resource development projects underway or in the planning stages—projects that demand many of the same skills needed for pipeline construction. The planning participants concluded that focusing only on a gas pipeline would ignore these larger issues of capacity and competition for workers. They therefore adopted a broader goal for their efforts.

Goal: Deliver an Alaska workforce prepared for careers in construction, operations, management and other occupations related to natural resource development including a gasline.

- When examining current capacity, participants identified these areas as needing particular attention:
- Making better use of current workforce development resources through greater cooperation and coordination.
- Recognizing industry's major contributions to worker training and leveraging these resources by expanding public/private partnerships.
- Creating better connections between Alaskans and the career opportunities opened up by a gasline and other development projects.



The plan presented on the following pages addresses these points. It consists of a set of recommended strategies that, if implemented, will position the state to "grow its own" workforce for AGIA and for other large projects. The suggested activities are not directed specific jobs or occupations. They are intended to build a flexible system of workforce development that can anticipate and respond to a variety of demands and that will serve Alaskans well into the future.

Planning participants recognize that implementing the plan will call for significant additional investment by the State of Alaska. In order that this investment yields the greatest return, it must be directed at high need, cost effective proposals. The groups strongly recommend that the Alaska Workforce Investment Board review and prioritize all requests for operational and capital training funds—a role well within the Board's charge of overseeing and coordinating Alaska's workforce development policies and programs. To fulfill this function effectively, the Board must be empowered and strengthened. This requires adequate budget and staffing, including a full-time AWIB position to oversee AGIA training plan implementation.

The planning groups have been guided by the Principles for Alaska's Vocational and Technical Education and Training System found in *Alaska's Future Workforce Strategic Policies and Investment Blueprint*. Participants reviewed and endorsed the good planning efforts that have already been accomplished—for example, the *Construction Workforce Development Plan* adopted by AWIB in 2006 and the *Vocational Education Comprehensive Plan for Alaska* developed by DOLWD in 2004—and have incorporated many of the recommendations from these plans.

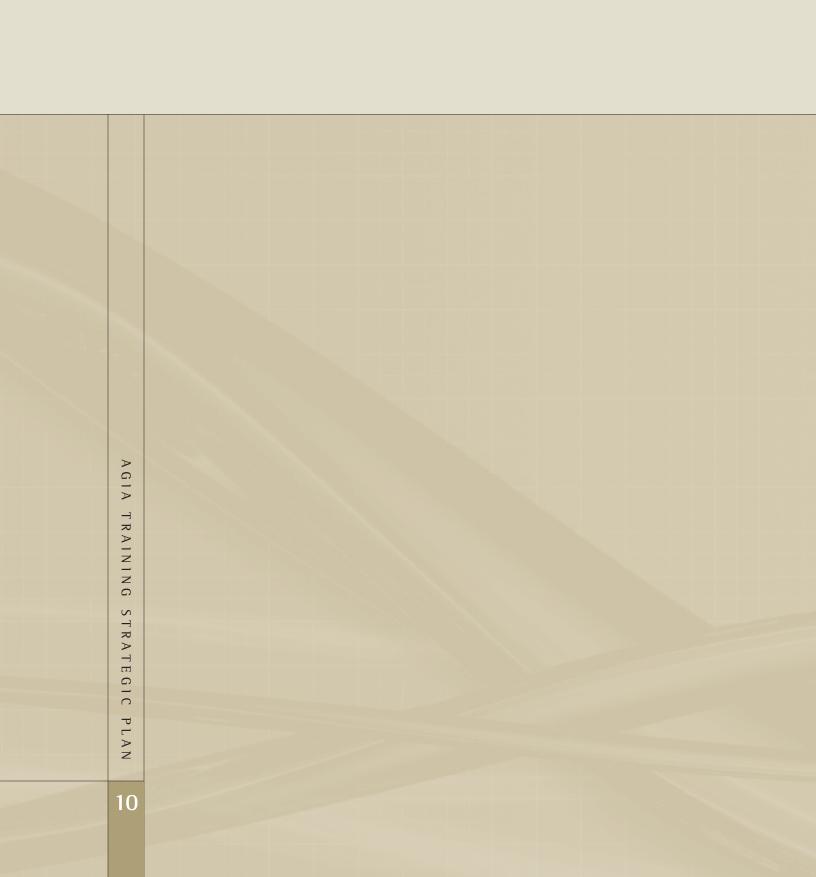
Planning participants also reached consensus on the following points:

- Industry employers, trade associations, trade unions, apprenticeship sponsors, local, state and federal agencies and public and private educational institutions all have a role in workforce development.
- Program planners and decision makers need accurate information on employment demand and supply.
- Preparation of the future workforce must start early in the educational process.
- Public/private partnerships are essential.
- Training needs to be based on industry standards.
- State training dollars should be targeted at programs that meet industry needs and standards, incorporate proven strategies and techniques ("best practices") and demonstrate measurable outcomes.
- Training for the gas pipeline needs to emphasize long-term careers as well as short-term jobs.

In addition to the development of a strategic plan, DOLWD has begun building the data foundation for the AGIA job training program. Working with industry partners, DOLWD staff identified those occupations needed in the construction of a natural gas pipeline. In 2006, over 16 percent of workers in these occupations were nonresidents and over 37 percent were over the age of 45 – statistics that point to both current and future skills gaps. (See Appendix B.) Unless these skills gaps are addressed, both sides of the labor market will suffer. Alaska's employers will have difficulty finding the types of workers they need and significant numbers of Alaskans will remain either unemployed or discouraged.

The plan is not complete; rather, it provides a framework for further action. It will be revisited and refined frequently as more detailed information about the gas pipeline and other major projects becomes available. Carrying out the identified strategies will require concentrated effort on the part of responsible parties—the State of Alaska, industry and private training providers. Through this cooperative effort, the planning groups believe that the state can achieve the following vision:

Alaskans are trained and ready for gas pipeline and other natural resource development jobs and these jobs are made available to Alaskans.





Increase awareness of and access to career opportunities in natural resource development.

Industry and the state need to promote understanding among Alaskans about the career opportunities opened up by the development of the state's natural resources. Further, Alaskans need information on how to prepare themselves to access these opportunities.

This strategy can be implemented by:

- Conducting public awareness campaigns.
- Developing a comprehensive, one-stop information system on training opportunities and job openings in Alaska.

Funding:

- Industry
- State general fund



Strategic Element 1.1

Conduct public awareness campaign

Rationale

The development of Alaska's natural resources offers enormous career opportunities for state residents. However, even those most closely involved in workforce training do not have a complete understanding of the employment demands of the various large scale projects that are underway or in the planning stages. Parents, high school students and adult workers have much more limited information on which to base career planning and goals.

Action Steps

- Retain professional assistance in crafting a multi-faceted public awareness strategy phased to the development of the gas pipeline and other major resource development projects
- Develop communication strategies effective in recruiting rural, Alaska Native and minority residents into training and jobs
- Identify best practices to be highlighted in the campaign
- Develop consistent—branded—messages





- DOLWD/AWIB
- Business/industry partners

Resources

- Funding
 - ▶ State general fund
 - ▶ Industry
- People
- AGIA Training Plan Coordinator

Timeline

FY09

Evaluation

Public awareness/communications plan is in place and being implemented as phased.



Strategic Element 1.2

Develop a comprehensive, one-stop information system on job openings and training opportunities in Alaska.

Rationale

Once Alaskans are made aware of the employment opportunities provided by natural resource development, they need to know how they can access these jobs or the training/retraining they might need to become prepared for employment. At present, this information is scattered and not always current. A centralized clearinghouse of information that can be accessed on-line can provide a link between individuals and opportunities.

Action Steps

- Create an inventory of available training and job openings, emphasizing jobs related to natural resource development
- Disseminate the inventory through interactive electronic and print media
- Provide for updating and maintenance of the system
- Provide incentives for trainers and employers to participate in the inventory
- Increase support for packaging and disseminating regional employment data

Responsible Parties

- DOLWD/Employment Security Division
- Alaska Commission on Postsecondary Education (ACPE)





Resources

- Materials/systems
 - ▶ ALEXsys employment data base
 - ▶ AKCIS career information data base
- Funding
 - ▶ State and federal workforce development dollars
- People
 - ▶ AGIA Training Plan Coordinator

Timeline

FY09

Evaluation

A centralized, electronic source of information on training and job opportunities is established and maintained.





Develop a comprehensive, integrated Career and Technical Education system for Alaska that aligns training institutions and coordinates program delivery.

Building a strong, flexible workforce to meet Alaska's resource development needs requires a healthy CTE system—one that prepares high school students for further training and work and that provides opportunities for adults to maintain job skills or acquire new ones. At present, there is little state investment in career and technical education at the secondary level and only limited support at the postsecondary level.

In addition, there is no system in place to assure that CTE operating and capital dollars are being spent in the most effective manner to meet high priority needs. Better coordination among existing training institution and closer alignment of program offerings are essential to increasing the state's capacity to grow its own labor force.

This strategy can be implemented by:

- Developing a state initiative for career pathways
- Establishing and implementing standards for Alaskan training programs
- Incorporating career counseling and planning in the K-12 system.
- Creating an integrated system of out-of-school youth and adult training and education
- Coordinating program development and delivery among the existing training programs.

Funding:

- TVEP and STEP dollars
- State General Fund
- WIA and other federal training programs
- Industry



Strategic Element 2.1

Develop a state initiative for career pathways

Rationale

Alaskan students need a clear picture of the careers available to them and what it takes to prepare for their chosen careers. Students also should have easy transitions from one educational level to another. Career pathways—which lay out the academic and technical instruction related to a particular career—can assist students in planning their education and in securing employment in their field of choice.

Action Steps

- Identify models for mapping career pathways
- Survey Alaskan school districts and the private sector
- Secure examples from national sources
- "Alaskanize" nationally developed career pathways, where necessary, to fit local conditions
- Utilize business/industry/education consortia to develop industry-specific pathways if no model exists
- Provide electronic and print resources and pathways templates to public and private training providers
- Require state-funded training programs to develop and implement career pathways, including articulation between one educational level and the next
- Encourage private postsecondary training institutions to develop and utilize career pathways
- Revitalize the Career and Technical Student Organizations (CTSOs), such as DECA, Junior Achievement, etc.
- Reestablish and fill the AWIB Secondary/Postsecondary Liaison position





Responsible Parties

- Alaska Department of Education and Early Development (secondary school career pathways)
- DOLWD (state-funded training centers)
- University of Alaska system
- Private training providers
- Business/industry consortia

Resources

- Models and materials:
 - ▶ National career pathways initiatives
 - ▶ Alaska developed career pathways
- Funding:
 - ▶ State general fund
 - ▶ Federal (Carl Perkins IV, WIA)
 - ▶ Industry

Timeline

Begin immediately, based on the requirements of Carl Perkins IV. Provide state funding by FY10.

Evaluation

All publicly-funded (secondary and postsecondary) training programs will be part of a published career pathway that is available to students, parents and other interested parties.



Strategic Element 2.2

Incorporate career counseling and planning into the K-12 system.

Rationale

Alaska's K-12 student population is its greatest pool of potential workers. Better information about career options in the state is a first step. However, students also need assistance in making realistic career choices and taking concrete steps to meet their career goals. Parents play an important part in forming their children's aspirations and choices and need to be involved in career planning. Industry has information and resources that can help students make wise choices.

Action Steps

- Encourage school districts to utilize the Alaska Career Ready Certificate as an impetus for career planning for all students
- Create and disseminate a template for career plans, based on career pathways
- Provide awareness and training for counselors and teachers in career pathways and career plans
- Utilize industry consortia for career information and guidance materials and presentations
- Use district-to-district volunteers to assist school districts with planning
- Develop and disseminate models for involving parents in career awareness and planning
- Identify and disseminate strategies for using community resources in career exploration and planning





Responsible Parties

- DEED
- Local school districts
- DOLWD

Resources

- ▶ Materials and models
- ▶ State and local school district career planning templates
- ▶ DOLWD career guides and publications
- ▶ Industry consortia-developed career information materials
- Funding
 - ▶ State general fund
- People:
 - ▶ DEED Career and Technical Education Staff
 - ▶ DOLWD Career Counselors

Timeline

Fall 2009

Evaluation

All Alaskan high school graduates have a written career plan based on their selected career pathway.



Strategic Element 2.3

Establish and implement standards for Alaskan training programs.

Rationale

All training should lead to employment by assuring that successful completers demonstrate the technical skills and work attitudes required by industry. To meet the needs of industry and students, training programs must be consistent across the state. Developing and enforcing training standards can provide these assurances. Programs and processes that produce demonstrated student success and job placement need to be identified as "best practices" and adopted widely in training efforts.

Action Steps

- Identify and disseminate information about available industry standards
- Identify nationally-adopted standards, where available
- Use business/industry/education consortia to develop or "Alaskanize" standards if national models are not available or not sufficient for local conditions
- Inventory training programs to assess if they are based on recognized industry standards
- If current programs—either publicly or privately funded—do not meet standards, provide assistance for
 - ▶ Curriculum development
 - ▶ Professional development
 - ▶ Equipment/materials needed to meet standards
 - ▶ Expense of undergoing industry certification review
- Require all state-funded training to be based on industry standards, leading to appropriate industry certification for successful completers
- Require all state-funded training programs to adopt and implement an employability and soft skills assessment program
- Recognize training programs that meet or exceed standards





Responsible Parties

- DEED
- DOLWD/AWIB

Resources

- Models and materials:
 - ▶ National standards developed by various industries
 - ▶ Existing employability and soft skills assessment programs (WorkKeys/WIN®, Youth Employability Skills, SCANS).

Funding:

- State General Fund
- Federal (Carl Perkins, WIA)
- Industry

Timeline

FY09 budget request

Evaluation

All state-funded training programs meet appropriate industry standards and demonstrate inclusion of employability and soft skills.



Strategic Element 2.4

Coordinate program development and delivery among existing training programs.

Rationale

Alaska's limited training resources must be deployed in the most efficient and effective manner if the state's workforce development needs are to be met. Unnecessary duplication of programs, programs that are not adequately resourced, facilities that are underutilized or substandard, competing administrative structures all dilute the ability of the current system to respond to demand.

Action Steps

- Create a network among existing state-supported regional training centers that will:
 - ▶ Provide technical assistance in meeting program standards
 - Serve as an umbrella for national accreditation of these centers
 - ▶ Rationalize program delivery among the centers
- Strengthen the statewide organization of career and technical training providers as a vehicle for coordination and communication
- Incentivize private providers to meet state standards and recognize those that do
- Require requests for state operational and capital training dollars to be funneled through and prioritized by the Alaska Workforce Investment Board





Responsible Parties

- DOLWD/AWIB
- State-funded training centers
- Statewide career and technical training providers

Resources

- Funding:
 - ▶ TVEP/STEP/state general fund
 - ▶ WIA, Denali Commission and other federal training programs
 - ▶ Industry

Timeline

FY09 budget request

Evaluation

State training dollars are allocated in line with AWIB priorities. There is minimum duplication of training programs and where duplication exists, it is based on demonstrated need.



Strategic Element 2.5

Maintain a robust support system for youth and adult vocational education.

Rationale

Many youth and adults seeking to enter jobs in natural resource occupations need skill development before they can be successful. Data indicate that there is a considerable pool of workers who have some of the skills required for these occupations, but need foundational skills upgrades, remediation, and/or remediation in order to compete successfully for good jobs. Other adults may need additional educational services such as Adult Basic Education (ABE), General Educational Development (GED), English as a Second Language, and math and language training. Prospective workers may also require other types of supportive services while in training or apprenticeships. These services can be as small as a referral for child care services to funding a complete physical exam, but are required to keep the student in class and allow them to be successful.

Action Steps

- Increase support for ABE and ESL programs in all regions of the state.
- Identify and widely disseminate information on Web-based instruction for skills upgrading in various occupations.
- Increase individual electronic access to the Alaska Job Center Network (AJCN) and the Alaska Career Information System (AKCIS).
- Encourage the use of all available supportive services provided through workforce development grantees, social service organizations, and the Onestop Job Centers, particularly training and employment services.

Responsible Parties

- DOLWD
- ABE/GED Grantees
- Job Center Network





- Marketing materials
- AKCIS & ALEXsys systems
- Funding (state and federal funds)
- Personnel (job center staff and partners; providers of ABE/GED; WIA & STEP grantees)

Timeline

FY09

Evaluation

- Youth and adult workers have information about obtaining natural resource development jobs.
- Reduce attrition in job training and apprenticeship programs.





Increase opportunities for registered apprenticeship in skilled occupations and expand other structured training opportunities.

Registered Apprenticeship is a national training system that combines paid learning, on-the-job and related technical and theoretical instruction in a skilled occupation. The purpose of a Registered Apprenticeship program is to enable employers to develop and apply industry standards to training programs that can increase productivity and improve the quality and safety of the workforce. Apprenticeship programs are the primary vehicle for the considerable private sector investment in workforce development.

Certifications earned through Registered Apprenticeship programs are recognized nationwide as portable industry credentials. Registered Apprenticeship has been utilized successfully in Alaska for over 50 years, primarily in the construction industry.

There are other models of structured training such as certificate and degree programs that use internships, cooperatives and mentorships. Many college and career and technical education programs utilize these models in engineering, project management, and similar disciplines where on-the-job (OJT) practicums are required.

This strategy can be implemented by:

- Increasing job training through construction academies, career and tech- prep programs, and pre-apprenticeship programs for entry-level employment.
- Increasing employment opportunities for apprenticeships on all construction and infrastructure projects in Alaska.
- Developing training incentives for employers who utilize apprenticeships and other structured OJT.
- Establishing a funding mechanism to support apprenticeships and other structured training opportunities.

Funding:

- Davis-Bacon training benefit.
- Tax credits/WIA funding, and public and private investments.
- State training fund established through AS36.05.045
- Industry



Strategic Element 3.1

Increase job training through construction academies, career and tech-prep programs, and preapprenticeship programs for entry-level employment.

Rationale

Training that utilizes actual work experience along with classroom instruction is a time-proven method for placing people in jobs. The success of construction and other skill academies in all parts of Alaska and with youth and adult workers indicates that such efforts are cost-effective preparation for entry-level positions. Tech prep programs transition secondary students to postsecondary programs, including apprenticeship.

Action steps

- Increase state funding for workforce development programs that utilize structured training opportunities
- Use state dollars to leverage private support for structured training opportunities
- Increase state support for tech prep programs at both the secondary and postsecondary level.

Responsible Parties

- DOLWD
- DEED
- University of Alaska
- Private sector training entities





- Funding
 - ▶ State training fund
 - ▶ Industry support for academies

Timeline

FY09

Evaluation

Skill academies are offered in various regions of the state. Tech prep opportunities are available in all state high schools. Training programs at all levels utilize some form of structured, on-the-job training.



Strategic Element 3.2

Increase employment opportunities for apprenticeships on all construction and infrastructure projects in Alaska

Rationale

Employers have long been the major source for job training. Private investment in specific skill development—primarily through union and non-union apprenticeships—far outstrips public expenditure for occupational training. Currently in Alaska, there is considerable room for expansion of apprenticeship opportunities on both public and private projects.

Action Steps

Require apprenticeship employment on all state funded construction projects Inform employers of the benefits of apprenticeship utilization Create an information system that tracks apprenticeship hire by trade

Responsible Parties

- DOLWD
- State government agencies having capital projects
- Private employers





- Funding
 - ▶ State capital projects
 - ▶ Davis-Bacon training benefit
 - ▶ Union training trusts
 - ▶ Industry
- Persons
 - ▶ Federal Apprenticeship Office
 - ▶ State Apprenticeship Coordinator

Timeline

Begin in FY09 capital budget

Evaluation

Apprenticeship slots are utilized on all state-funded construction projects, including major maintenance. Number of apprentices employed on private projects increases, as indicated by the apprentice tracking information system.



Strategic Elements 3.3

Develop training incentives for employers who utilize apprenticeships and other structured OJT.

Rationale

While many employers already use apprentices, there is considerable room for growth, particularly among smaller firms. Identifying and providing appropriate incentives can be a cost-effective way for the state to leverage private funding and to increase apprenticeship and other on-the-job training slots across many skill areas.

Action Steps

- Identify incentives that have been used elsewhere to encourage apprentice and other OJT utilization
- Adopt those incentives that would be most effective in the Alaska context
- Provide technical assistance to firms wanting to establish or increase apprentice/ OJT use

Responsible Parties

DOLWD





- Funding
 - ▶ WIA/other federal workforce development funds
 - ▶ State general fund
- People
 - ▶ State/Federal Apprenticeship Coordinators

Timeline

FY09

Evaluation

Incentive system is in place and is being utilized by employers to develop or expand apprentice/OJT utilization, as indicated by the apprentice tracking information system.



Strategic Element 3.4

Establish a funding mechanism to support apprenticeships and other structured training opportunities.

Rationale

Legislation exists (AS36.05.045) that assesses a fee on all state and federally funded construction projects. Currently, these funds accrue to the general fund, but they could be used to establish a training fund that is a separate account subject to Legislative appropriation under the authority of the DOLWD Commissioner. Funds deposited into the account would not lapse at the end of the fiscal year, unless otherwise provided for by the Alaska legislature. The approximately \$2 million dollars per year generated could provide partial funding for the activities recommended in this plan. Additional appropriations could be made to the fund, as determined by the Legislature.

Action Steps

Introduce legislation to establish a training fund from receipts collected under AS 36.05.045.

Responsible Parties

- Alaska Legislature
- DOLWD





- Funding
 - AS36.05.045 fees
 - ▶ Additional appropriations to the fund

Timeline

2008 legislative session

Evaluation

AS36.05.045 is amended to establish a training fund. Annual appropriations are made to the fund from assessed fees.





Increase opportunities for development of appropriate training programs for operations, technical and management workers.

These jobs range from professionally-certified and degreed positions to support functions for industries impacted by natural resource development. Degree programs such as engineering and science, process operations and technical positions require both academic/conceptual education and work-place application.

This strategy can be implemented by:

- Expanding programs in the postsecondary system for critical jobs such as engineering, environmental sciences, etc.
- Recruiting more Alaskan high school graduates into these programs.
- Increasing internships and work-cooperatives for both secondary and postsecondary students.
- Assuring better articulation between incumbent workers and management programs/degrees.

Funding:

- Increased funding for UA and other postsecondary institutions in target programs
- Tax credits for internships
- Support for applied academics as part of state funding for career and technical education
- Industry contribution to specific certificates and degrees



Strategic element 4.1

Expand programs in the postsecondary system for critical jobs such as engineering, environmental sciences, technical operations and management.

Rationale

Professional, technical and managerial employees have highly-transferable skills that provide excellent long-term career prospects. At present, these occupations have a large number of non-resident hires. The state's current capacity to train for these careers is severely strained. Expanding capacity to meet additional demand requires considerable lead time in order to secure the necessary faculty and to recruit qualified students.

Action Steps

- From DOLWD data, identify the high priority occupations in which there are the significant current shortages
- Assess in-state postsecondary capacity to address these shortages
- Engage the University of Alaska, state/regional training centers and other certificate/degree granting institutions in developing a comprehensive plan to expand capacity
- Prioritize funding requests for program start-up or expansion through AWIB
- Explore loan forgiveness for students completing degree programs in target areas for which no in-state program is available

Responsible Parties

- DOLWD/AWIB
- University of Alaska
- AVTEC/State-funded training centers
- Private certificate/degree granting institutions





Resources

- Materials and equipment
 - ▶ Industry
- Funding
 - ▶ TVEP and STEP dollars
 - ▶ State general fund
 - ▶ Industry for specific programs

Timeline

Spring 2008

Evaluation

State capacity in certificates and degree programs in professional, technical and managerial occupations is sufficient to meet industry needs.



Strategic Element 4.2

Recruit more Alaskan high school graduates into programs leading to professional, technical and managerial certificates/degrees.

Rationale

Because these occupations provide excellent long-term potential, they make attractive career choices for Alaskan youth. However, students who wish to pursue careers in these areas need begin preparation early by taking the necessary math and science courses in high school.

Action Steps

- Start early in the educational process to encourage students in these careers, using proven success strategies such as those used in the Alaska Native Science and Engineering Program (ANSEP)
- Expand the use of applied academics in secondary math and science courses
- Increase summer engineering, science and technology camps
- Develop tech prep and other secondary/postsecondary articulation agreements in these occupational areas
- Utilize the regional training centers as pipelines for transitioning rural high school completers into these programs
- Initiate a state matching program for scholarship support for students in these programs

Responsible Parties

- DEED/School districts
- University of Alaska
- DOLWD
- AVTEC/State-funded training centers
- Industry consortia





Resources

- Models and Materials
 - **ANSEP**
 - ▶ Existing math and science camps
- Funding
 - ▶ State Foundation funding
 - ▶ State general fund
 - ▶ Federal/state grant funds for camps
 - ▶ Industry
- People
 - ▶ DEED program specialists
 - ▶ UA program faculty

Timeline

FY09

Evaluation

Increased numbers of Alaskan high school students enroll in certificate and degree programs leading to professional, technical and management careers in natural resource development.



Strategic Element 4.3

Increase internships and work-cooperatives for both secondary and postsecondary students.

Rationale

All students—whether they are training for a skilled craft or for a professional or technical occupation—benefit from on-the-job experience during their training program. Such experience can also lead to job placement after training is completed. Many of the major employers in natural resource industries already use internships and other forms of work experience to recruit their workforce. However, there is the potential for expanding these opportunities beyond the core companies.

Action Steps

- Identify existing internship and work cooperative programs
- Disseminate successful industry practices in providing meaningful work experiences
- Use industry to industry contacts to promote such programs and practices
- Provide technical assistance to companies that want to develop internships
- Encourage continued cooperation between industry consortia and certificate/degree program staff





Responsible Parties

- Certificate/degree program faculty and staff
- Industry consortia

Resources

- Models and materials
 - ▶ Model internship/work experience programs
 - Industry consortia
- Funding
 - Industry employers
 - **▶** TVEP

Timeline

FY09

Evaluation

Students in certificate and degree programs leading to professional, technical and managerial occupations have meaningful on-the-job experience as part of their educational program.



Strategic Element 4.5

Increase job opportunities by expanding capacity to deliver incumbent worker training focused primarily on helping workers keep pace with technological changes and including journeyman craft worker skills upgrades.

Rationale

Many of the current workers are required to keep pace with technological changes and journey level craft workers in particular need opportunities for skill upgrades to keep or advance in their job.

Action Steps

- Expand flexibly offered incumbent worker training.
- Offer short term, developmental instruction in technology and skill upgrades.

Responsible Parties

- Postsecondary program faculty
- State-funded training centers
- Industry associations
- Apprenticeship sponsors



Strategic Element 4.4

Assure better articulation between incumbent workers and management programs/degrees.

Rationale

Many of the supervisors and managers needed for the gas pipeline and other natural resource development projects will come from the current workforce. These workers often already have much of the knowledge and skills imparted in a formal certificate or degree program. Recognizing this prior experience in terms of college credit can accelerate program completion. Short courses on specific supervisory and management topics can also speed the advancement of current workers.

Action Steps

- Expand the use of awarding of credit for prior experience in university-level professional or technical certificates and degrees
- Offer short term, developmental instruction in supervision, safety management and other topics identified by industry

Responsible Parties

- Postsecondary program faculty
- State-funded training centers
- Industry associations
- Apprenticeship sponsors





Resources

- Models
 - ▶ Associate Degree in Apprenticeship Technologies
- Funding
 - Industry, for professional development of current workers

Timeline

FY10

Evaluation

Incumbent workers advancing to supervisory positions have access to the necessary developmental instruction and to certificate/degree programs that acknowledge their prior experience.



Strategic Element 4.5

Increase job opportunities by expanding capacity to deliver incumbent worker training focused primarily on helping workers keep pace with technological changes and including journeyman craft worker skills upgrades.

Rationale

Many of the current

Action Steps

- Expand flexibly offered incumbent worker training.
- Offer short term, developmental instruction in technology and skill upgrades.

Responsible Parties

- Postsecondary program faculty
- State-funded training centers
- Industry associations
- Apprenticeship sponsors





Resources

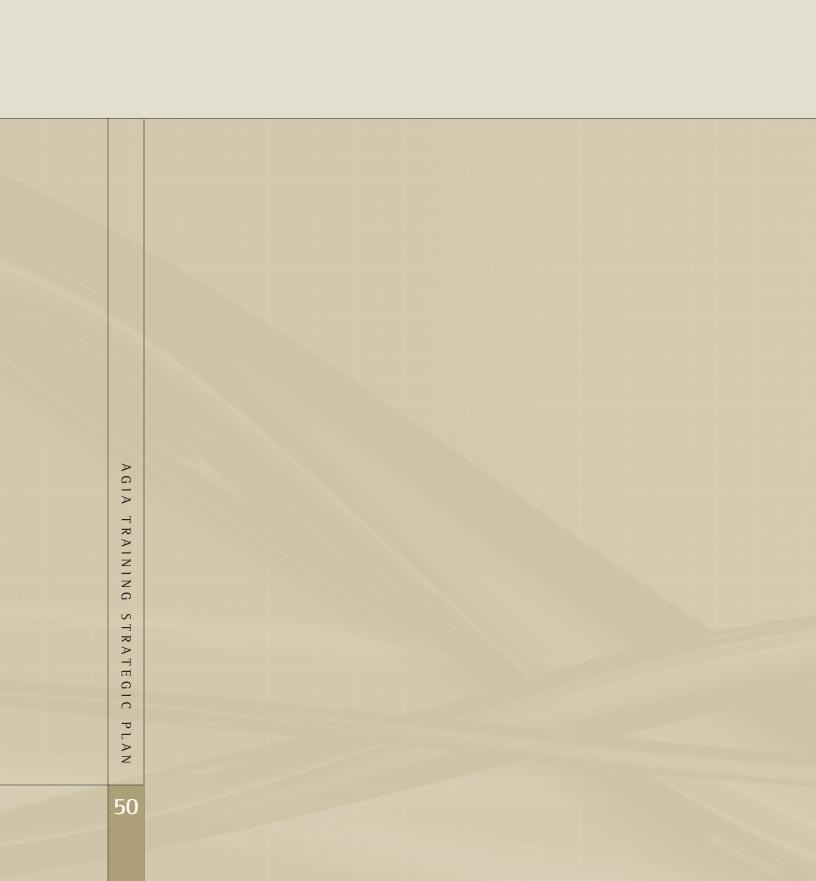
- Models
 - ▶ Contract and corporate training programs
- Funding
 - ▶ State General Funds
 - ▶ STEP
 - ▶ W1A

Timeline

FY10

Evaluation

Incumbent workers advancing in and maintaining employment in their given field.



Inside the AGIA Report

Gasline Occupations

A list of 113 occupations considered significant inconstructing a natural gas pipeline.

Gasline Phases

indicates the phase(s) that the occupation will be in significant demand.? A general progression of the gasline project. Phases may, at times, overlap or run concurrently. A 🗾

Statewide Labor Force Indicators

statewide labor force. The occupational numbers in this construction), but are statewide numbers which include Statistical data providing measurements relating to the table are not industry or project specific (e.g. gasline all industries combined.

Summary Statistics for All AGIA Occupations

Select statewide labor force indicators which estimate nonresidency and older worker information.

Training Levels

abbreviations used in the table are defined in footnote 11 at the end of the report. Counts of occupations by training requirements. The training level

Training Levels¹¹

The report is organized by ten occupational groups, each consisting of occupations that are related in broad terms by the nature of the functions performed.

Estimated Demand (2004-2014)³ Alaska Worker Data (2006)² Total Number of Workers Gasline Phases Preconstruction and Construction STOIT MTOIT LTOIT WEEKP VOC AA BA BA+ 25 28 13 13 6 7 18 3 37.4% 24.3% Summary Statistics for All AGIA Occupations Percent Nonresident Workers² Percent of Workers Age 45+9 Percent of Workers Age 50+9

Training Levels¹¹

UI Claimants previously working in occupation 8

Qualified, but working in another occupation⁶

Ratio of Registrants to Job Position Postings

Worker

Statewide Labor Force Indicators

AGIA Occupations

ALEXsys Employment Data (2006)

1.9 1.3 89 35 70 30.2 25 16,8 232 149 > 1 Health and Safety Engineers Except Mining Safety Engineers and Inspectors Occupational Health and Safety Specialists Safety

147 41.3 56.6 38.1 \$35.92 231 12.1 66.2 44.6 \$38.32

104 206

> 965 11,670 36,070 169 See footnote 3 See footnote 3 29,751 21,251 16.4 536 17.1 3,132 AGIA Totals **Group Totals**

Note: Employment totals are not restricted to gasline occupations.

Tuesday, December 18, 2007

Page 8

The "n/a" means data are not available.

An asterisck (*) means data are suppressed due to confidentiality.

24.3 42.3 30.4

See footnote 3 See footnote 3

331 13,590 22,309

465

1,010 3.1 37,723

7.

Group and AGIA Totals

Summarized counts and calculations on presented data. The occupational numbers in this table are not industry specific or project specific (e.g. gasline construction), but are statewide numbers which include all industries combined.

Summary Statistics for All	Ga	sline	Ph	as	es¹						5	State	wide	Lab	or Fo	rce Ir	ndica	tors						
AGIA Occupations ❖ Percent Nonresident Workers ² 16.4% ❖ Percent of Workers Age 45+9 37.4%	Po (S	esign/ ermit/ Open eason Phases	H	Precon			Worker (2006) ²	Data		nated Den 004-2014		Emple	LEXsys oyment (2006)		Pote	ential Sup (2006)	pply	Pro	Employa ejections 04-2014		Worl Demogr (200	aphics		pation eteristics
 ❖ Percent of Workers Age 43+3 ❖ Percent of Workers Age 50+9 Z4.3% Training Levels ¹¹			Road and Bridge through (Preconstruction and Co		Total Number Workers	Number of No Workers	Percent Nonre Workers	Annual Openings Growth	Annual Openings due Replacement	Total Annual (Number of Job Position Postings ⁴	Number of Registrants ⁵	Ratio of Regis Job Position P	Qualified, but working in another occupation 6	Workers currently employed in less sloccupations	UI Claimants previously working in occupation 8	Estimated Employment (2004)	Projected Employment (2014)	Growth Rate (Percent Workers Age 45+	Percent Workers Age 50+	Average Hourly Wage (May 2006) ¹⁰	Training Levels ¹¹
STOJT MTOJT LTOJT WkExp VOC AA BA BA+ 25 28 13 13 6 7 18 3	Phase 1	Phase 3 Phase 2	Phase 1	Construction	Operations	rof	of Nonresident	Nonresident S	ngs due to	ngs due to	l Openings	Position	gistrants ⁵	f Registrants to sition Postings	working in ation ⁶	ently ess skilled	previously cupation 8	ployment	ployment	(Percent)	ers	ers	ly Wage	
Crafts																								
Carpenters			✓	✓		5,173	879	17.0	53	79	132	404	1,655	4.1	1,198	178	1,791	4,855	5,383	10.9	34.6	20.0	\$25.73	LTOJT
Cement Masons and Concrete Finishers			✓	✓		430	131	30.5	*	*	*	13	166	12.8	80	30	188	*	*	*	28.0	15.4	\$26.72	МТОЈТ
Construction and Building Inspectors			✓	✓		262	65	24.8	6	5	10	13	76	5.8	56	20	27	210	265	26.2	67.8	51.4	\$31.54	WkExp
Construction Laborers			✓	✓		8,367	1,626	19.4	63	48	111	635	2,564	4.0	2,332	858	3,015	3,605	4,232	17.4	24.2	13.8	\$20.57	МТОЈТ
Construction Managers			✓	✓		1,045	174	16.7	39	31	69	54	277	5.1	197	32	87	1,681	2,066		63.7	44.3	\$39.87	BA
Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders				✓		132	25		4	3	7	7	14	2.0	19	3	35	101	141		14.9			МТОЈТ
Electricians			✓	✓		2,767	669	24.2	31	43	74	152	416	2.7	431	160	697	2,164	2,471	14.2	32.7	20.0	\$29.93	LTOJT
Explosives Workers, Ordnance Handling Experts, and Blasters				✓		44	9	20.5	*	*	*	3	23	7.7	17	7	5	*	*	*	39.5	34.2	\$23.86	MTOJT
Fence Erectors			✓	✓		110	10	9.1	n/a	n/a	n/a	6	31	5.2	18	10	41	n/a	n/a	n/a	21.4	9.7	*	МТОЈТ
First-Line Supervisors/Managers of Construction Trades and Extraction Workers			✓	✓		1,641	533	32.5	45	34	80	27	230	8.5	334	108	162	2,013	2,467	22.5	57.3	37.2	\$37.24	WkExp
First-Line Supervisors/Managers of Helpers, Laborers, and Material Movers, Hand				✓		387	45	11.6	4	7	11	61	109	1.8	91	16	47	284	325	14.4	39.5	25.3	\$21.20	WkExp
First-Line Supervisors/Managers of Production and Operating Workers				✓	✓	816	273	33.5	7	21	28	24	82	3.4	282	40	191	995	1,062	6.7	50.2	30.9	\$30.94	WkExp
Helpers, Construction Trades, All Other			✓	✓		741	168	22.7	*	*	*	16	327	20.4	208	136	183	*	*	*	22.0	13.7	*	STOJT
HelpersCarpenters				✓		406	59	14.5	*	*	*	33	152	4.6	109	80	133	*	*	*	14.4	9.1	\$14.88	STOJT
HelpersElectricians			✓	✓	✓	180	24	13.3	*	*	*	17	122	7.2	63	51	44	*	*	*	16.8	8.1	\$15.65	STOJT
HelpersExtraction Workers				✓		216	52		*	*	*	1	51	51.0	83	65	39	*	*	*	17.9			STOJT
HelpersInstallation, Maintenance, and Repair Workers				✓		1,079	178		11	15	26	187	396		389	262	267	454	562	23.8	33.8			STOJT

Summary Statistics for All	Gā	asline	e Ph	ase	:S ¹						5	State	wide	Lab	or Fo	rce Ir	ndica	tors						
AGIA Occupations ❖ Percent Nonresident Workers ² 16.4% ❖ Percent of Workers Age 45+ ⁹ 37.4%	P G S	esign/ ermit/ Open eason Phases	- 7-1	Precon			Worker (2006) ²	· Data		nated Dem 004-2014)			LEXsys oyment (2006)		Pote	ential Sup (2006)	ply	Pro	Employm ojections 04-2014)		Worl Demogr (200	aphics		pation eteristics
 ❖ Percent of Workers Age 431 ❖ Percent of Workers Age 50+9 24.3% 			Road and Bridge through			Total Number Workers	Number of Workers	Percent I Workers	Annual Openings of Growth	Annual C Replacen	Total An	Number of Postings ⁴	Number	Ratio of I Job Posit	Qualified another	Workers currently employed in less sloccupations	UI Claim working	Estimate (2004)	Projected (2014)	Growth F	Percent Workers Age 45+	Percent Workers Age 50+	Average (May 200	Training Levels ¹¹
Training Levels ¹¹ STOJT MTOJT LTOJT WkExp VOC AA BA BA+ 25 28 13 13 6 7 18 3	Phase 1	Phase 3 Phase 2	Bridge – Phase 1 1rough Operations	90	Operations	mber of	of Nonresident	Percent Nonresident Workers	penings due to	Annual Openings due to Replacement	Annual Openings	of Job Position	Number of Registrants ⁵	Ratio of Registrants to Job Position Postings	Qualified, but working in another occupation ⁶	currently 1 in less skilled ons ⁷	UI Claimants previously working in occupation ⁸	Estimated Employment (2004)	Projected Employment (2014)	Growth Rate (Percent)	Workers	Vorkers	Average Hourly Wage (May 2006) ¹⁰	Levels ¹¹
Crafts (Continued	d)																							
HelpersPipelayers, Plumbers, Pipefitters, and Steamfitters			✓	✓		423	167	39.5	*	*	*	19	119	6.3	202	0	103	*	*	*	16.8	9.8	*	STOJT
HelpersProduction Workers				✓	✓	154	29	18.8	4	9	12	159	378	2.4	38	19	9	302	339	12.2	16.7	12.1	\$12.32	STOJT
Highway Maintenance Workers			✓			129	19	14.7	*	*	*	34	86	2.5	32	7	37	*	*	*	47.1	32.8	\$24.74	МТОЈТ
Insulation Workers, Floor, Ceiling, and Wall				✓		232	55	23.7	*	*	*	49	46	0.9	31	0	42	*	*	*	20.6	11.3	*	МТОЈТ
Insulation Workers, Mechanical				✓		230	88	38.3	*	*	*	34	30	0.9	23	0	29	*	*	*	36.4	17.9	\$25.51	MTOJT
Millwrights				✓		216	52	24.1	*	*	*	9	38	4.2	60	18	33	*	*	*	53.1		\$26.74	
Painters, Construction and Maintenance			✓	✓		809	183	22.6	13	14	27	95	331	3.5	164	49	240	909	1,038	14.2	27.7	14.3	\$20.75	MTOJT
Plumbers, Pipefitters, and Steamfitters			✓	✓		2,130	484	22.7	22	34	57	153	286	1.9	325	46	474	1,492	1,716	15	32.7	18.9	\$28.34	LTOJT
Sheet Metal Workers				✓		453	45	9.9	*	*	*	17	59	3.5	65	34	159		*	*	32.4	18.7	\$24.49	LTOJT
Structural Iron and Steel Workers			✓	✓		288	78		*	*	*	21	94	4.5	125	33	111	*	*	*	31.5	17.1	\$27.11	LTOJT
Welders, Cutters, Solderers, and Brazers			✓	✓		1,004	349		11	18	28	141	412	2.9	229	55	170	628	734	16.9	40.4	25.5		LTOJT
Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders			✓	✓		59	15		*	*	*	0	28	n/a	15	0	11	*	*	*	37.0	23.9		МТОЈТ
STOJT MTOJT LTOJT WkExp 7 10 7 4	VO		BA		A+ 0	29,923	6,484		See	footnote	3	2,384	8,598	3.6	7,216	2,317	8,370	See f	footnote	3	32.9	19.9		
Equipment Operators	<u> </u>	T U			U																			
Bus and Truck Mechanics and Diesel Engine Specialists			✓	✓		844	141	16.7	10	18	28	98	160	1.6	241	6	104	707	807	14.1	41.9	24.4	\$24.41	VOC
Crane and Tower Operators			✓	✓		187	61	32.6	2	3	5	20	23	1.2	34	3	23	116			53.6	37.7	*	LTOJT
Excavating and Loading Machine and Dragline Operators			✓	✓		365	66		6	7	13	20	238	11.9	102	12	154	256		23	46.9		\$23.53	MTOJT
						303	- 00	13.1	<u> </u>				250	/	102	1.2		250		23			723.53	1.11001

AGIA Occupations ❖ Percent Nonresident Workers² 16.4% ❖ Percent of Workers Age 45+9 37.4% ❖ Percent of Workers Age 50+9 24.3%	Per O Se	esign/ rmit/ ppen asson nases	Rc	Precor		Alaska																		
			$\widetilde{\sim}$				Worker (2006) ²	Data		nated Den 2004-2014		Emple	LEXsys byment 1 (2006)		Pote	ential Sup (2006)	ply	Pro	Employm ojections 04-2014)		Worl Demogr (200	aphics	Occup Charac	pation teristics
			Road and Bridge through	tion		Total Number Workers	Number of Workers	Percent I Workers	Annual O Growth	Annual O Replacen	Total An	Number of Postings ⁴	Number (Ratio of I Job Posit	Qualified, but another occup	Workers currently employed in less sloccupations	UI Claim working i	Estimated (2004)	Projected (2014)	Growth F	Percent Workers Age 45+	Percent Workers Age 50+	Average (May 200	Training Levels ¹
Training Levels ¹¹ STOJT MTOJT LTOJT WkExp VOC AA BA BA+ 25 28 13 13 6 7 18 3	Phase 1	1 1	Bridge – Phase 1 1rough Operations		Operations	9	of Nonresident	Percent Nonresident Workers	Openings due to	Annual Openings due to Replacement	Annual Openings	of Job Position	Number of Registrants ⁵	Ratio of Registrants to Job Position Postings	ed, but working in r occupation ⁶	currently 1 in less skilled ns ⁷	UI Claimants previously working in occupation ⁸	Estimated Employment (2004)	Projected Employment (2014)	Rate (Percent)	Vorkers	Vorkers	Average Hourly Wage (May 2006) ¹⁰	Levels ¹¹
Equipment Operators (Continued)																								
First-Line Supervisors/Managers of Mechanics, Installers, and Repairers				✓		802	89	11.1	20	27	47	17	97	5.7	217	81	57	1,089	1,285	18	62.6	39.2	\$31.62	WkExp
Industrial Machinery Mechanics				✓	✓	208	34	16.3	4	9	12	70	61	0.9	61	23	42	431	467	8.4	54.9	36.4	\$27.67	LTOJT
Maintenance Workers, Machinery			✓	✓		289	74	25.6	*	*	*	29	141	4.9	135	109	55	*	*	*	50.4	36.0	\$16.95	STOJT
Mobile Heavy Equipment Mechanics, Except Engines			✓	✓		796	180	22.6	18	18	36	55	135	2.5	193	10	76	842	1,019	21	42.7	27.5	\$27.69	VOC
Operating Engineers and Other Construction Equipment Operators			✓	✓		4,192	767	18.3	82	71	153	140	586	4.2	941	366	1,448	2,741	3,561	29.9	49.9	31.0	\$27.32	МТОЈТ
Paving, Surfacing, and Tamping Equipment Operators			✓	✓		98	15	15.3	*	*	*	18	106	5.9	60	10	70	*	*	*	29.1	23.3	*	MTOJT
Pile-Driver Operators			✓	✓		131	31	23.7	*	*	*	2	10	5.0	28	17	50	*	*	*	37.7	27.4	\$25.12	MTOJT
Truck Drivers, Heavy and Tractor-Trailer			✓	✓		3,090	421	13.6	40	55	95	381	1,065	2.8	710	142	712	3,380	3,781	11.9	48.8	33.6	\$21.12	MTOJT
Group Totals STOJT MTOJT LTOJT WkExp 1 5 2 1	VOC 2	_	BA 0	_	3A+ 0	11,002	1,879	17.1	See	footnote	e 3	850	2,622	3.1	2,722	779	2,791	See f	ootnote	: 3	49.2	31.8		
Material Handling																								
First-Line Supervisors/Managers of Transportation and Material-Moving Machine and Vehicle Operators				✓		473	46	9.7	7	15	22	4	69	17.3	227	28	97	635	702	10.6	60.3	41.0	\$31.48	WkExp
Laborers and Freight, Stock, and Material Movers, Hand				✓		6,531	1,228	18.8	27	120	146	371	768	2.1	2,247	1,270	1,364	3,667	3,932	7.2	25.7	15.6	\$14.65	STOJT
Order Clerks				✓		374	17	4.5	*	*	*	12	48	4.0	169	83	38	*	*	*	30.3	20.4	\$14.93	STOJT
Stock Clerks and Order Fillers				✓		2,891	378	13.1	0	124	124	492	1,221	2.5	947	377	326	3,348	3,202	-4.4	23.9	15.0	\$14.09	STOJT
Group Totals STOJT MTOJT LTOJT WkExp 3 0 0 1	VOC 0	AA 0	BA		8A+ 0	10,269	1,669	16.3	See	footnote	e 3	879	2,106	2.4	3,590	1,758	1,825	See f	ootnote	3	27.1	16.9		
Logistics																								
Bus Drivers, Transit and Intercity				✓		1,068	276	25.8	6	11	17	130	215	1.7	349	79	267	523	580	10.9	61.0	45.6	\$15.90	MTOJT

Summary Statistics for All	Ga	sli	ne P	has	ses ¹						9	State	wide	Lab	or Fo	rce Ir	ndica	tors						
AGIA Occupations ❖ Percent Nonresident Workers ² 16.4% ❖ Percent of Workers Age 45+ ⁹ 37.4%	P S	esign/ ermit/ Open eason Phases		H	Dracon		Worker (2006) ²			nated Dem 004-2014)		Emplo	LEXsys syment (2006)		Pote	ential Sup (2006)	ply	Pro	Employmojections		Worl Demogr (200	aphics	Occuj Charac	pation teristics
 ❖ Percent of Workers Age 50+9 Ż 24.3% 			through		Draconstruction an	Total Number Workers	Number of Workers	Percent N Workers	Annual Openings of Growth	Annual O _I Replacem	Total Annual	Number of Postings ⁴	Number c	Ratio of K Job Positi	Qualified, another o	Workers currently employed in less stoccupations	UI Claima working i	Estimated (2004)	Projected (2014)	Growth R	Percent Workers Age 45+	Percent Workers Age 50+	Average I (May 200	Training Levels ¹¹
Training Levels ¹¹ STOJT MTOJT LTOJT WkExp VOC AA BA BA+ 25 28 13 13 6 7 18 3	Phase 1	Phase 2	10	dge – Phase 1	Operations and Construction	으	f Nonresident	Percent Nonresident Workers	penings due to	Annual Openings due to Replacement	ual Openings	f Job Position	Number of Registrants ⁵	Ratio of Registrants to Job Position Postings	Qualified, but working in another occupation ⁶	currently in less skilled ns ⁷	UI Claimants previously working in occupation ⁸	Estinated Employment (2004)	Projected Employment (2014)	Growth Rate (Percent)	Vorkers	Vorkers	Average Hourly Wage (May 2006) ¹⁰	_evels ¹¹
Logistics (Continued	d)																							
Dispatchers, Except Police, Fire, and Ambulance			✓	· •		575	53	9.2	2	12	14	49	190	3.9	166	41	79	567	587	3.5	37.2	23.7	\$20.41	МТОЈТ
Purchasing Agents, Except Wholesale, Retail, and Farm Products			✓	~		368	45	12.2	6	12	18	8	45	5.6	104	30	29	499	556	11.4	54.1	37.5	\$27.74	WkExp
Truck Drivers, Light or Delivery Services			~			1,705	278	16.3	41	20	60	281	537	1.9	635	354	256	2,127	2,534	19.1	33.7	21.6	\$15.86	STOJT
Group Totals STOJT MTOJT LTOJT WkExp 1 2 0 1	VO 0		0	BA 0	BA+ 0	3,716	652	17.5	See	footnote	2 3	468	987	2.1	1,254	504	631	See f	footnote	3	43.5	29.8		
Operations	•																							
Gas Compressor and Gas Pumping Station Operators					✓	79	9	11.4	*	*	*	7	27	3.9	103	41	25	*	*	*	28.0	20.0	n/a	MTOJT
Gas Plant Operators					✓	60	4	6.7	*	*	*	4	18	4.5	10	5	5	*	*	*	41.7	25.0	\$26.27	LTOJT
Plant and System Operators, All Other					✓	284	32	11.3	*	*	*	0	55	n/a	136	35	29	*	*	*	44.9	28.8	\$27.24	LTOJT
Group Totals STOJT MTOJT LTOJT WkExp 0 1 2 0	VO 0		_	BA 0	BA+ 0	423	45	10.6	See	footnote	2 3	11	100	9.1	249	81	59	See f	footnote	3	41.3	26.6		
Administration			- ,																		,			
Bookkeeping, Accounting, and Auditing Clerks	✓	✓	✓ ✓		,	5,125	345	6.7	44	102	146	356	1,127	3.2	1,489	590	521	5,423	5,865	8.1	41.8	26.9	\$18.08	МТОЈТ
Budget Analysts		✓	✓			141	3	2.1	2	4	5	16	30	1.9	53	11	6	226	241	6.6	50.0	31.4	\$30.65	BA
Computer and Information Systems Managers	1	✓	✓	✓		345	21	6.1	12	10	22	31	114	3.7	78	2	16	540	662	22.6	57.1	33.9	\$38.21	BA+
Computer Programmers	1	✓	✓	✓		656	65	9.9	0	17	17	34	85	2.5	108	29	13	715	662	-7.4	49.8	34.1	\$29.90	BA
Computer Support Specialists	1	✓	✓	✓		1,088	66	6.1	16	12	27	93	433	4.7	236	110	40	955	1,112	16.4	26.1	16.2	\$22.58	AA
Computer Systems Analysts	✓	✓	✓	✓		469	42		14	9	23	26	81	3.1	124	51	15	793	928	17	46.1		\$34.63	BA
Cost Estimators		✓	✓ ✓	,		145	31		12	9	21	15	14		59	26	10		514	29.1	58.5			WkExp
	•																							_

Summary Statistics for All	Gá	aslir	ne Ph	ase	es ¹						9	State	wide	Lab	or Fo	rce Ir	ndica	tors						
AGIA Occupations ❖ Percent Nonresident Workers ² 16.4% ❖ Percent of Workers Age 45+9 37.4%	P S	Pesign/ Permit/ Open Season Phases	7	Precon			Worker (2006) ²	Data		nated Dem 004-2014		Emple	LEXsys syment (2006)		Pote	ential Sup (2006)	pply	Pro	Employn ojections 04-2014)		Worl Demogr (200	aphics		pation eteristics
 ❖ Percent of Workers Age 50+9 24.3% 			Road and Bridg through	tion		Total Number Workers	Number of Workers	Percent Workers	Annual Openings of Growth	Annual C Replacer	Total An	Number of Postings ⁴	Number	Ratio of Regi Job Position	Qualified another	Workers employe occupati	UI Claim working	Estimate (2004)	Projecte (2014)	Growth I	Percent Age 45+	Percent Workers Age 50+	Average (May 20)	Training Levels ¹¹
Training Levels ¹¹ STOJT MTOJT LTOJT WkExp VOC AA BA BA+ 25 28 13 13 6 7 18 3	Phase 1	Phase 2	Bridge - Phase 1 mough Operations	on	Operations	umber of	of Nonresident	Percent Nonresident Workers	penings due to	Annual Openings due to Replacement	Annual Openings	of Job Position	Number of Registrants ⁵	f Registrants to sition Postings	Qualified, but working in another occupation ⁶	Workers currently employed in less skilled occupations ⁷	UI Claimants previously working in occupation 8	Estimated Employment (2004)	Projected Employment (2014)	Rate (Percent)	⁹ ercent Workers \ge 45+	Workers	Average Hourly Wage (May 2006) ¹⁰	Levels ¹¹
Administration (Continued	i)																							
Database Administrators	✓	✓ ,		✓		99	8	8.1	4	1	5	25	59	2.4	26	3	6	121	160	32.2	46.3	26.3	\$33.58	BA
Employment, Recruitment, and Placement Specialists	✓	✓ ,		✓	✓	111	8	7.2	4	3	6	22	124	5.6	41	5	9	166	204	22.9	44.7	33.0	\$22.56	BA
Executive Secretaries and Administrative Assistants	✓	✓ ,	/	✓		4,460	397	8.9	38	64	102	565	1,765	3.1	1,550	569	443	3,362	3,740	11.2	41.2	28.3	\$18.93	МТОЈТ
File Clerks	✓	✓ ,	/	✓		795	56	7.0	0	14	14	78	346	4.4	268	131	84	473	283	-40	24.8	16.8	\$12.68	STOJT
First-Line Supervisors/Managers of Office and Administrative Support Workers	~	✓ ,	/	✓		2,154	127	5.9	24	68	92	135	705	5.2	678	214	237	3,189	3,429	7.5	48.7	31.0	\$23.05	WkExp
Human Resources Assistants, Except Payroll and Timekeeping	✓	✓ ,		✓		406	19	4.7	8	11	19	70	249	3.6	127	69	45	518	594	14.7	32.3	18.3	\$18.43	STOJT
Payroll and Timekeeping Clerks	✓	✓ ,	/	✓		526	47	8.9	12	17	29	66	184	2.8	139	37	59	638	761	19.3	41.8	25.0	\$19.70	МТОЈТ
Receptionists and Information Clerks	✓	✓ ,		✓		3,547	396	11.2	50	70	120	474	1,961	4.1	1,392	743	375	2,861	3,356	17.3	25.9	17.5	\$13.77	STOJT
Training and Development Specialists		,		✓		239	10	4.2	5	5	9	30	98	3.3	87	12	26	310	355	14.5	50.2	33.3	*	BA
Group Totals STOJT MTOJT LTOJT WkExp 3 3 0 2	VO 0		A BA	_	3A+ 1	20,306	1,641	8.1	See	footnote	e 3	2,036	7,375	3.6	6,455	2,602	1,905	See 1	footnote	2 3	38.9	25.5		
Camps / Catering																								
Cooks, Institution and Cafeteria				✓		824	132	16.0	20	34	54	215	345	1.6	218	62	171	1,108	1,303	17.6	54.6	34.8	\$16.09	МТОЈТ
Cooks, Restaurant				✓		2,807	1,006	35.8	42	52	93	256	645	2.5	830	127	464	1,663	2,078	25	22.8	11.6	\$13.13	LTOJT
Dishwashers				✓		2,157	726	33.7	25	38	63	270	558	2.1	608	207	275	1,138	1,388	22	19.6	12.9	\$9.54	STOJT
Emergency Medical Technicians and Paramedics				✓		286	43	15.0	9	3	11	54	120	2.2	112	44	13	230	317	37.8	26.5	16.6	\$22.58	VOC
First-Line Supervisors/Managers of Food Preparation and Serving Workers				✓		755	97	12.8	14	21	36	88	329	3.7	230	27	79	897	1,039	15.8	35.0	20.4	\$15.29	WkExp
First-Line Supervisors/Managers of Housekeeping and Janitorial Workers				✓		440	56	12.7	11	10	21	44	535	12.2	98	11	52	403	514	27.5	45.7	28.1	\$17.97	WkExp

Summary Statistics for All	G	asl	ine	e Pł	nase	es¹						5	State	wide	Lab	or Fo	rce Ir	ndica	tors						
AGIA Occupations ❖ Percent Nonresident Workers ² 16.4% ❖ Percent of Workers Age 45+ ⁹ 37.4%	I S	Desig Permi Oper Seaso Phase	t/ n n	-	Precon		Alaska	Worker (2006) ²			nated Den 004-2014			ALEXsys loyment (2006)		Pot	ential Sup (2006)	pply	Pro	Employn ojections 004-2014		Wor Demogr (200		Occup Charac	pation teristics
 ❖ Percent of Workers Age 43+9 ❖ Percent of Workers Age 50+9 24.3% 				Road and Bridge through	struction a		Total Number Workers	Number - Workers	Percent Workers	Annual Openings of Growth	Annual C Replacer	Total Annual	Number of Postings ⁴	Number	Ratio of Job Posi	Qualified, but another occup	Workers cur employed in occupations	UI Claim working	Estimate (2004)	Projecte (2014)	Growth I	Percent Workers Age 45+	Percent Workers Age 50+	Average (May 20	Training
Training Levels ¹¹ STOJT MTOJT LTOJT WkExp VOC AA BA BA+ 25 28 13 13 6 7 18 3	Phase 1	Phase 2	Phase 3	idge – Phase 1 ugh Operations	Preconstruction and Construction	Operations	amber of	of Nonresident	Percent Nonresident Workers	penings due to	Annual Openings due to Replacement	nual Openings	of Job Position 4	Number of Registrants ⁵	Ratio of Registrants to Job Position Postings	Qualified, but working in another occupation ⁶	Workers currently employed in less skilled occupations 7	UI Claimants previously working in occupation ⁸	Estimated Employment (2004)	Projected Employment (2014)	Growth Rate (Percent)	Workers	Workers	Average Hourly Wage (May 2006) ¹⁰	Levels ¹¹
Camps / Catering (Continued	d)																								
Food Preparation Workers					✓		3,521	621	17.6	62	85	147	282	770	2.7	824	287	319	2,391	3,015	26.1	24.2	16.0	\$11.66	STOJT
Food Service Managers					~		520	80	15.4	26	15	41	252	378	1.5	326	35	71	912	1,170	28.3	39.1	23.6	\$16.82	WkExp
Janitors and Cleaners, Except Maids and Housekeeping Cleaners					1		6,154	727	11.8	121	121	242	682	1,173	1.7	2,183	907	779	6,380	7,585	18.9	45.3	32.2	\$13.30	STOJT
Laundry and Dry-Cleaning Workers					1		509	80	15.7	7	9	16	22	102	4.6	164	20	89	314	387	23.2	44.9	30.8	\$10.99	МТОЈТ
Maids and Housekeeping Cleaners					1		4,680	1,254	26.8	83	57	140	710	1,100	1.5	1,229	355	787	2,727	3,556	30.4	35.6	23.7	\$10.47	STOJT
Maintenance and Repair Workers, General					✓		3,906	596	15.3	74	74	148	285	878	3.1	1,008	342	542	3,826	4,566	19.3	50.3	32.9	\$20.48	МТОЈТ
Group Totals STOJT MTOJT LTOJT WkExp 4 3 1 3	VC 1		AA 0	B.		3A+ 0	26,559	5,418	20.4	See	footnote	e 3	3,160	6,933	2.2	7,830	2,424	3,641	See 1	footnote	e 3	37.3	24.7		
Office & Field Engineering																									
Architectural and Civil Drafters	✓	~	✓				247	18	7.3	6	9	15	36	80	2.2	44	26	12	323	384	18.9	32.9	16.7	\$22.82	VOC
Cartographers and Photogrammetrists	✓	~	✓		✓		91	9	9.9	*	*	*	3	18	6.0	15	2	2	*	*	*	44.2	26.7	\$27.42	BA
Chemical Engineers						✓	46	9	19.6	*	*	*	3	4	1.3	14	1	2	*	*	*	61.9	35.7	\$42.54	BA
Civil Engineering Technicians	1	✓	~		1		505	50	9.9	8	7	16	17	41	2.4	141	75	38	342	425	24.3	37.8	26.4	\$26.75	AA
Civil Engineers	~	~	✓	✓	✓		781	97		26	15	42	64	47	0.7	83	15	17	968			43.9		\$36.68	BA
Control and Valve Installers and Repairers, Except Mechanical Door					✓		87	43		3	3	6	5	17	3.4	45	32	7	119			37.5	21.4	\$25.69	МТОЈТ
Electrical and Electronic Engineering Technicians	/	~	✓		✓	✓	298	79	26.5	5	6	11	37	91	2.5	77	12	8	286					\$30.03	AA
Electrical Engineers	✓	✓	✓				269	44		6	4	10	30	24	0.8	46	3	12				43.3		\$40.74	BA
Engineering Managers	✓	✓	✓		✓		278	33		12	11	23	44	31	0.7	116		10			22.1	65.3		\$48.39	BA+
	1						278	- 33	11.7	12	11		7.7	51	0.7				546		22.1	05.5	10.2	\$ 10.57	<i>D</i> /11

Summary Statistics for All	Gā	sliı	ne Pl	has	es¹						5	State	wide	Lab	or Fo	rce Iı	ndica	tors						
AGIA Occupations ❖ Percent Nonresident Workers ² 16.4% ❖ Percent of Workers Age 45+9 37.4%	P S	esign/ ermit/ Open eason Phases	5	Precon			Worker (2006) ²	· Data		nated Dem 004-2014		Empl	LEXsys oyment (2006)		Pote	ential Sup (2006)	pply	Pro	Employa ejections 04-2014	}	Wor Demogr (20			pation eteristics
 ❖ Percent of Workers Age 50+9 24.3% 			Road alid b thro	1 -		Total Number Workers	Number of Workers	Percent Workers	Annual Openings Growth	Annual (Replacer	Total Annual	Number of Postings ⁴	Number	Ratio of Job Posi	Qualified another	Workers employe occupati	UI Claim working	Estimate (2004)	Projecte (2014)	Growth Rate	Percent Age 45+	Percent Workers Age 50+	Average (May 20	Training
Training Levels ¹¹ STOJT MTOJT LTOJT WkExp VOC AA BA BA+ 25 28 13 13 6 7 18 3	Phase 1	Phase 2	through Operations Phase 3	í S	Operations	으	of Nonresident	Percent Nonresident Workers)penings due to	Annual Openings due to Replacement	mual Openings	of Job Position	Number of Registrants ⁵	Ratio of Registrants to Job Position Postings	Qualified, but working in another occupation ⁶	Workers currently employed in less skilled occupations ⁷	UI Claimants previously working in occupation 8	Estimated Employment (2004)	Projected Employment (2014)	Rate (Percent)	Vercent Workers Age 45+	Workers	Average Hourly Wage (May 2006) ¹⁰	Training Levels ¹¹
Office & Field Engineering (Continued	i)																							
Engineering Technicians, Except Drafters, All Other	✓	✓	/	~		755	115	15.2	6	10	15	13	42	3.2	172	0	83	404	461	14.1	39.1	27.4	\$26.84	AA
Environmental Engineers	✓	✓ .	/	~		224	41	18.3	*	*	*	17	22	1.3	49	13	8	*	*	*	49.3	31.9	\$34.76	BA
Inspectors, Testers, Sorters, Samplers, and Weighers			1	1		337	69	20.5	*	*	*	14	104	7.4	69	27	50	*	*	*	32.6	23.2	\$23.64	МТОЈТ
Managers, All Other	✓	✓ .	/			2,993	279	9.3	25	89	114	78	1,119	14.3	940	401	236	4,556	4,806	5.5	52.1	35.0	\$31.77	WkExp
Materials Engineers	✓	1	/	✓		27	12	44.4	*	*	*	5	9	1.8	5	0	0	*	*	*	62.5	31.2	*	BA
Mechanical Drafters	✓	✓	/			13	0	0.0	*	*	*	4	9		2	2	0	*	*	*	0.0		\$34.94	VOC
Mechanical Engineering Technicians	✓	✓	/	✓		43	6	14.0	*	*	*	13	40	3.1	22	6	1	*	*	*	36.8	18.4	\$27.36	AA
Mechanical Engineers	✓	✓	/	✓		274	110	40.1	14	11	24	43	75	1.7	52	6	40	388	523	34.8	40.5	23.2	\$40.04	BA
Office and Administrative Support Workers, All Other	✓	✓	/ /			5,207	451	8.7	5	49	54	132	2,006	15.2	1,590	0	598	2,069			33.9	22.2	\$17.40	STOJT
Office Clerks, General		✓	/ /	✓		8,097	988		50	153	202	402	1,910		2,849	1,711	940	6,894	7,391	7.2				STOJT
Procurement Clerks		✓	/	✓		310	23	7.4	0	7	7	18	69		90	58	19		275		49.8	34.8	\$20.13	STOJT
Production, Planning, and Expediting Clerks		✓	/	✓		411	53	12.9	13	17	30	69	95		143	74	42	680	813					STOJT
Surveying and Mapping Technicians		✓	/	✓		243	30	12.3	4	9	13	12	57		39	25	37	257	297					МТОЈТ
Surveyors		√ .	/	✓		554	100	18.1	13	15	28	25	83	3.3	94	4	148	425		31.3			\$28.12	
Telecommunications Equipment Installers and Repairers, Except Line Installers		✓	/	✓		767	76	9.9	7	15	22	26	126		178	60	51	715	787		46.7		\$26.21	
Weighers, Measurers, Checkers, and Samplers, Recordkeeping				✓		99	14		*	*	*	4	40		29	19	12	*	*	*	35.2			STOJT
Group Totals STOJT MTOJT LTOJT WkExp 5 3 1 1	VO 2			8A]	BA+ 1	22,956			See	footnote	e 3	1,114	6,159	5.5		2,572	2,373	See f	Cootnot	e 3	38.9	25.9		

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Summary Statistics for All	Ga	asl	ine	Ph	ase	es ¹						5	State	wide	Lab	or Fo	rce Ir	ndica	tors						
AGIA Occupations ❖ Percent Nonresident Workers² ❖ Percent of Workers Age 45+9 37.4%	P S	Desigr Permit Open Season Phase	t/ n	Ъ.	Precon			Worker (2006) ²			nated Den 004-2014			ALEXsys loyment (2006)		Pot	ential Sup (2006)	ply	Pro	Employojections	3	Wor Demog			pation eteristics
❖ Percent of Workers Age 50+9 24.3%				Road and Bridge through	Preconstruction and		Total Number Workers	Number of Workers	Percent Nonresident Workers	Annual Openings of Growth	Annual Openi Replacement	Total Annual	Number of Job Postings ⁴	Number of	Ratio of Regi Job Position	Qualified, but working another occupation ⁶	Workers cur employed in occupations	UI Claiman working in	Estimated I (2004)	Projected I (2014)	Growth Rate	Percent Workers Age 45+	Percent Workers Age 50+	Average Hourly Wage (May 2006) ¹⁰	Training Le
Training Levels ¹¹ STOJT MTOJT LTOJT WkExp VOC AA BA BA+ 25 28 13 13 6 7 18 3	Phase 1	Phase 2	Phase 3	ge – Phase 1 sh Operations	Construction	Operations	ber of	Nonresident	mresident	enings due to	Openings due to ement	al Openings	Job Position	Number of Registrants ⁵	of Registrants to osition Postings	ut working in cupation ⁶	currently d in less skilled ons ⁷	UI Claimants previously working in occupation ⁸	Employment	Projected Employment (2014)	e (Percent)	orkers	orkers	ourly Wage	Levels ¹¹
Environmental																									
Environmental Engineering Technicians		✓	✓		✓		243	35	14.4	*	*	*	14	42	3.0	74	26	33	*	*	*	36.3	21.9	*	AA
Environmental Science and Protection Technicians, Including Health		1	✓		✓		198	23	11.6	*	*	*	42	113	2.7	65	16	30	*	*	*	33.9	26.1	\$17.55	AA
Environmental Scientists and Specialists, Including Health		✓	✓		✓		535	37	6.9	12	12	23	18	53	2.9	188	2	25	645	760	17.8	42.9	29.0	\$30.23	MA
Hazardous Materials Removal Workers		✓	✓				449	80	17.8	*	*	*	1	7	7.0	154	42	285	*	*	*	31.2	15.7	*	MTOJ
Landscape Architects		~	~		✓		40	3	7.5	*	*	*	2	10	5.0	12	2	10	*	*	*	27.0	21.6	\$34.17	BA
Group Totals STOJT MTOJT LTOJT WkExp 0 1 0 0	VO 0		AA 2	BA	В	3A+ 1	1,465	178	12.2	See	footnote	e 3	77	225	2.9	493	88	383	See	footnot	e 3	36.7	23.4		
Safety									,													'			
Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	✓	✓	✓	✓	✓		232	70	30.2	4	3	7	35	68	1.9	28	5	7	104	147	41.3	56.6	38.1	\$35.92	BA
Occupational Health and Safety Specialists		✓	✓		✓	✓	149	25	16.8	3	5	7	31	40	1.3	62	0	10	206	231	12.1	66.2	44.6	\$38.32	BA
Occupational Health and Safety Technicians					✓		71	17	23.9	*	*	*	3	28	9.3	22	0	5	*	*	*	38.1	20.6	\$28.39	VOC
Security Guards					✓		2,680	424	15.8	0	51	51	622	829	1.3	898	460	309	2,349	2,335	-0.6	40.0	29.3	\$13.76	STOJ
Group Totals STOJT MTOJT LTOJT WkExp 1 0 0 0	VO 1	C	AA 0	BA	_	BA+ 0	3,132	536		See	footnote	e 3	691	965	1.4		465	331		footnot		42.3	30.4		
Grand Totals	1		•				129,751	21,251	16.4	See	footnote	e 3	11,670	36,070	3.1	37,723	13,590	22,309	See	footnot	e 3	37.4	24.3		

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section (January 2008)

Notes

- 1. <u>Gasline Phases</u> Gasline construction activities and the demand for workers in various occupations will vary over time, depending on the project's phase. Phases are not always sequential. Road and Bridge upgrades, maintenance, and repair will occur over the entire life of the gasline project. Some Phase 3 activities will overlap with preconstruction and construction activities. For a more complete description of each phase, see the document <u>Project Phases: AGIA Gasline Construction.</u>
- 2. Number of Workers/Residency Alaska wage records identify workers in private sector, state and local government covered by unemployment insurance within Alaska. Workers are assigned to the occupation in which they earned the most money in 2006, so a person will be counted only once, even if they worked in multiple occupations. The duration of a worker's employment is not a factor in the count of workers a person is counted as a worker once they earn any wages covered under Alaska's unemployment insurance system. Alaska worker residency is determined by matching the Alaska Department of Revenue Permanent Fund Dividend (PFD) file with the Alaska Department of Labor and Workforce Development wage file. The PFD file is a list of Alaskans who either applied for or received a PFD. Workers included in the wage file are considered Alaska residents if they applied for a 2006 PFD or 2007 PFD. This data is methodologically different than the employment data. For more information on how the worker and the employment data differ, please contact the Research and Analysis Section of the Alaska Department of Labor and Workforce Development at 907.465.4518.
- 3. Estimated Demand/Employment Projections Ten year occupational employment projections are produced biennially, and provide the data for Estimated Demand and the Alaska Employment Projections. Estimated and projected employment data includes self-employed workers in that occupation. Self-employment is not normally captured in other measures of employment published by the Alaska Department of Labor, Research and Analysis Section. Growth openings occur when new jobs are created in the economy. Replacement openings occur when workers leave an occupation. Replacement openings can occur for many reasons, including retirement, leaving the state, or changing careers. Total openings are the sum of growth and replacement openings, and may not total due to rounding. Some occupational projections will fall outside of statistical error measurement guidelines or will disclose confidential information about an employer, and are therefore suppressed. Because of suppressed data, totals for AGIA groups and overall totals cannot be calculated. This data is methodologically different than the employment data. For more information on how the worker and the employment data differ, please contact the Research and Analysis Section of the Alaska Department of Labor and Workforce Development at 907.465.4518.
- 4. Job Postings Total count of available jobs by occupation posted by employers on ALEXsys in 2006. ALEXsys is the State of Alaska's online job seeker/workforce services system.
- 5. <u>Registrants</u> Total count of ALEXsys registrants by occupation in 2006. Registrants may identify their interest in or qualification for multiple occupations on their application so individuals may be counted multiple times in this calculation.
- 6. <u>In Another Occupation</u> Workers were considered qualified for the listed occupation if they had four quarters of prior experience in the years 2004 thru 2006 in that occupation. Workers may be considered qualified for more than one occupation.
- 7. <u>In Less Skilled Occupation</u> Each worker's primary occupation in 2006 was compared with all occupations in which they had four quarters of prior experience in the years 2004 thru 2006. If the worker had four quarters of experience in an occupation, but was employed in 2006 in an occupation requiring less education, training or experience, then they are counted as potential supply since they are currently "underemployed".
- 8. <u>UI Claimants</u> Unemployment insurance claimants with an active claim in 2006. Claimants were matched with 2005 UI wage records to determine their primary prior occupation.
- 9. <u>Age</u> Worker age is determined by matching 2006 workers with historical PFD files. Only those workers with age data are used to determine the percent of workers older than age 45 or 50. Occupations with a significant number of nonresident workers will have less reliable age information since age data is not available for nonresident workers.
- 10. <u>Average Hourly Wage</u> Average Hourly Wage data comes from the Research and Analysis Section of the Alaska Department of Labor and Workforce Development, through the Occupational Employment Statistics Survey, a cooperative agreement with the U.S. Bureau of Labor Statistics, and represent statewide average wages for the occupation.
- 11. <u>Training Levels</u> Training requirements are based on the U. S. Department of Labor's Bureau of Labor Statistics data. The education groups are as follows:
 - STOJT Short Term On-the-Job Training, typically requiring less than one month of training to attain average job performance.
 - MTOJT Moderate Term On-the-Job Training, typically requiring between one and twelve months of combined on-the-job experience and informal training.
 - LTOJT Long Term On-the-Job Training, typically requiring more than 12 months of on-the-job training or combined work experience and formal classroom instruction for workers to develop the necessary skills to attain average job performance.
 - WkExp Work Experience in a related occupation is generally required to meet these job requirements. Some occupations are supervisory or managerial in nature.
 - VOC Vocational training at the postsecondary level, with program durations from several weeks to more than a year, is required to attain average job performance.
 - AA Associate Degree, requiring completion of a degree program of at least two years of full-time equivalent academic work, is required to attain average job performance.
 - BA Bachelor's degree, requiring completion of a degree program of at least four years but no more than five years of full-time equivalent academic work, is required to attain average job performance.
 - BA+ Bachelor's degree plus some combination of additional work experience or continued education beyond the bachelor's degree is required to attain average job performance in these occupations.

Training Provider	Location	Training Programs
ABC of Alaska		
	Anchorage	Carpenter; Painting; Plumber-Pipefitter; Sheet Metal Worker; Sprinkler Fitter
AGC Safety Inc.	A 1	
	Anchorage	24 Hour HAZWOPER; 40-Hour HAZWOPER General Site Worker; 8 Hour Hazwoper Refresher; AED Automatic External Defibrillator Training; Earthquake Preparedness Training; Electrical Safety Basics; Ergonomics for the Workplace; Excavation Safety; Fall Protection Basics; Flagger Certification; HAZCOM Program Development; HAZWOPER Awareness; Job Safety/Job-Site Analyses for Your Business; Ladder & Stairway Safety Basics; Lock Out/ Tag Out Safety; OSHA Records and Record Keeping; Permit-Required Confined Space; Proactive Safety Program for Your Workplace; Respiratory Protection for your Workplace; Scaffolding Safety Basics; Site Safety Audits and Inspections; Tool Box Safety Talks; Winter Safety and Survival; Workplace Safety and Safety Committees; Workplace Violence Deterrent Training
Alaska Computer Essentials		
	Anchorage	Accounting Technician and Bookkeeping; Administrative Assistant; Web Page Design
Alaska Inventor and Entrepreneurs Association	A 1	
	Anchorage	FastTrac Manufacturing; FastTrac New Venture; FastTrac NPO (Non-Profit); FastTrac Planning; FastTrac Starting and Growing Your Business
Alaska Ironworkers		
	Anchorage	Ironwork
Alaska Joint Electrical Apprenticeship & Training Trust		
	Anchorage	Lineman; Telephone; TreeTrimmer; Wireman
Alaska Laborer's Training Trust	A mahawa sa	Construction or related
	Anchorage	Construction of Telated
Alaska Medical Training Services	Wasilla	Medical Office Assistant
Alacka Onovatina Engineens Annuantica Tuoinina Tuust	.,	
Alaska Operating Engineers Apprentice Training Trust	Palmer	Construction or related
Alaska Technical Center		
Alaska Teelinea Center	Kotzebue	Accounting Clerk; Bldg Maintenance; Clerk Receptionist; Construction Trades; Construction Trades/Plumbing Systems/Electrical Systems; Oil Fired Burner Short Course; Plumbing Systems; Secretarial
Alaska Technology Learning Center, Inc		
	Anchorage	Introduction to Building Construction; Microsoft IT Helpdesk; Microsoft MCSA; Microsoft Office Specialist; Microsoft Webmaster

Training Provider	Location	Training Programs
Alaska Trowel Trades		
	Anchorage	Cement/Plaster
Alaska Vocational Technical Center		
	Seward	Basic Life Support; Building Maintenance Seminar Blueprints; Building Maintenance Seminar Electrical; Building Maintenance Seminar Plumbing Rp; Building Maintenance Seminar Sheetrock; Building Maintenance Seminar, Boilers; Building Maintenance Seminar, Carpentry; Business & Office Technology; Carpentry I, Correspondence; Diesel and Heavy Technology; Diesel Engine Technology; Diesel Marine Troubleshooting; Electrical I, Correspondence; Electrical II, Correspondence; Electrical III, Correspondence; Electrical IV, Correspondence; Electrician Apprentice, 1st Year; Electrician Apprentice, 2nd Year; Electrician Apprentice, 3rd Year; Electrician Apprentice, 4th Year; Emergency Medical Technician I; Facility Maintenance Construction Trades; Facility Maintenance Mechanical; Food Service Technology; Hazard Awareness; Heavy Equipment Technology; Housing Maintenance, Worker; Information Technology; Information Technology (IT) - Village Internet Agent; Intro to Gas Metal Arc Welding; Intro to Heavy Equipment Operation; Introduction To Computers; Introduction To Excel; Introduction to Microsoft Power Point; Introduction to Microsoft Word; Marine Safety - to save Juvenile; Microsoft Access, Advanced Level; Microsoft Access, Intermediate Level; Microsoft Excel, Intermediate Level; Microsoft Publisher; Microsoft Windows System Maintenance; Microsoft Word, Advanced Level; Microsoft Word, Intermediate Level; Pipe Welding; Plumbing I, Correspondence; Plumbing IV, Correspondence; Power Plant Operation; Serve Safe; Sheet Metal I, Correspondence; Structural Maintenance; Webpage Design; Welding Technology
Alaska Works		
	Statewide	Construction Trades and Building Maintenance Apprenticeship
Arctic Safety Training & Consulting		
	Kenai	CITS-Cook Inlet Training Standards; First Aid/CPR; Hazwoper Refresher; Hazwoper-24 Hrs; Hazwoper-40 Hrs; Health & Safety
Asbestos Removal Specialists of Alaska		
	Fairbanks	Asbestos Removal
Career Academy		
	Anchorage	Office Specialist; Travel Specialist
Center for Employment Education		
	Anchorage	Basic Driver Training-CDL A; Construction Technology Training; Construction Technology Training with CDL; Fast Track-CDL A
Charter College		
	Anchorage	Business Management Practice; Computer Aided Drafting Assistant; Computer Aided Drafting Associate; Computer Science: Business Applications Concentration; Computer Science: Networking Technology Concentration; Computer Science: Technical Graphics Concentration; Computerized Accounting; Computerized Bookkeeping Associate; Computerized Bookkeeping Specialist; Computerized Office Associate; Computerized Office Specialist; Information Technology Engineering (general - no concentration); Information Technology Engineering: Technical Graphics Concentration; Information Technology Management (general - no concentration); Information Technology Management: Business Applications Concentration; Information Technology Management: Business Management Practice Concentration; Information Technology Management: Computerized Accounting Concentration; Information Technology Management: Computerized Medical Office Administration Concentration

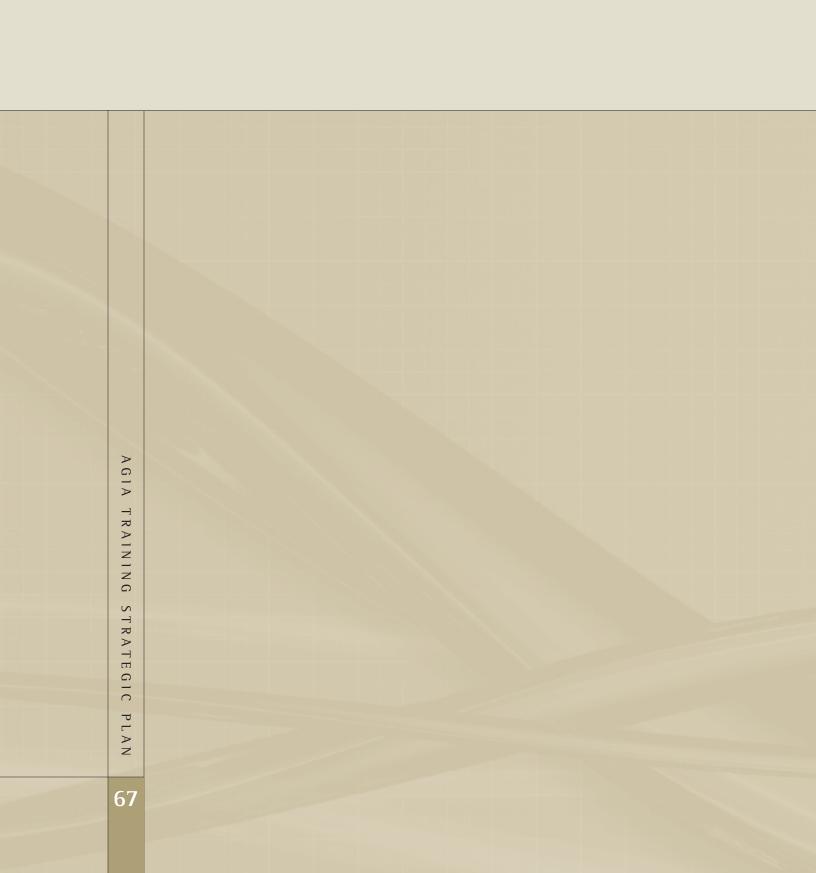
Training Provider	Location	Training Programs
Delta Mine Training Center		
	Delta Junction	Cartography; Drilling; Field Methods; GIS; Hazwoper; Hazwoper Refresher; Mineral; Mining; Underground Training
Environmental Management Inc		
	Anchorage	Air Monitoring for Asbestos; Asbestos Abatement Refresher; Asbestos Awareness; Asbestos Operations and Mainte; Confined Space Alternate Entry; Confined Space Entry; EPA/AHERA Inspector; EPA/AHERA Inspector Refresher; EPA/AHERA Management Planner R; EPA/AHERA Project Design Refre; EPA/AHERAAsbestos Abatement; EPA/AHERAAsbestos Abatement Su; EPA/AHERAAsbestos Management P; Facility Asbestos Coordinators; Hazardous Materials Transportation; Hazardous Waste Operations; HAZMAT Refresher DOT/IATA; Lead Awareness; Respiratory Fit Test; Supervisor of Hazardous Waste; Training Publications
Fairbanks Alaska Carpenter Training Center		
	Fairbanks	Carpentry Apprenticeship
Fairbanks Area Painting and Allied Trades	Faidearla	Ha-Delinto Ha-Warran
	Fairbanks	HazPaint; HazWoper
Fairbanks Area Plumber and Pipefitters	Fairbanks	Plumbing
GeoNorth		
	Anchorage	Advanced Coldfusion Development; FastTrack to Coldfusion; Intro to Arc GIS I; Intro to Arc GIS II; Programming Arc Objects with VBA
Heat & Frost Insulators & Asbestos Workers Local 97		
	Anchorage	Insulators/Asbestos Apprenticeship
Ilisagvik College	D.	
	Barrow	Administrative Computer Support; Arctic Environmental Oil Spill; Business Management; Carpentry Trades Technology; Electrical Trades Technology; Finish Carpentry; Heavy Truck Operations; Industrial Mechanics Technolog; Land Management; Plumbing & Mechanical
IUBAC Lc 1 Bricklayers & Craftsman		
	Anchorage	Masonry
New Frontier Vocational-Technical Center		
	Soldotna	Acct clerk; Clrk Typist

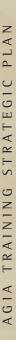
Training Provider	Location	Training Programs
Northern Industrial Training		
	Palmer	Bus Driver; Construction Equipment Training - 5 Week; Construction Equipment Training - 6 Week; Construction Equipment Training - 8 Week; Scanfill Electrical Level 2; NCCER Electrical Level 3; NCCER Electrical Level 3; NCCER Electrical Level 1; NCCER Highway/Heavy Construction; NCCER HVAC Level 2; NCCER Masonry Level 1; NCCER Masonry Level 1; NCCER Masonry Level 3; NCCER Masonry Level 3; NCCER Masonry Level 3; NCCER Mobile Crane Level 1; NCCER Mobile Crane Level 2; NCCER Pipefitting Level 3; NCCER Pipefitting Level 3; NCCER Pipefitting Level 3; NCCER Pipefitting Level 4; NCCER Residential Electrical Level 1; NCCER Residential Electrical Level 1; NCCER Residential Electrical Level 2; Plumbing Level 2; Plumbing Level 3; Plumbing Level 4; Pro Truck Driver - 6 Week; Project Management; Scaffolding; Site Layout Level 1; Site Layout Level 2
Northwest Technical Services Inc		
	Anchorage	Computer Technology for the WorkPlace
Pacific Rim Institution of Safety & Management		
	Kenai	EMT I; EMT I Refresher
Project Education Residential School		
	Galena	Commercial Kitchen Production
Satori Group Inc		
	Anchorage	Asbestos Abatement; Hazardous Waste Operations & Emergency Response
SERRC – Alaska Vocational Institute		
	Juneau	Combined Office Skills and Computer Training; Computer Skills; Office Skills
Southern Alaska Carpenters Union Training Center		
	Anchorage	Carpentry Apprenticeship; Millwright Apprenticeship
Southwest Alaska Vocational & Education Center		
	King Salmon	Hazwoper-40 Hour; Hazwoper-8 Hour Refresher; NCCER Carpentry Core & Level I; Off System CDL (Commercial Drivers License); Tank Farm Welding Certification

Training Provider	Location	Training Programs
University of Alaska Anchorage		
	Anchorage	Accounting; Apprenticeship Technology; Archit & Engr Technology; Architectural Drafting; Arctic Engineering; Business Administration; Business Computer Info Systems; Civil Engineering; Civil Engineering Drafting; Computer Information Systems; Computer Science; Culinary Arts; Diesel Technology; Electrical Engineering; Electrical Engr - Interdisc; Environmental Quality Engineer; Environmental Quality Science; Finance; Foodservice Technology; General Clerical; Geographic Information Sys; Geomatics; Global Supply Chain Mgmt; Heavy Duty Trans & Equip; Hospitality Restaurant Mgt; Management; Management Information Systems; Occupational Safety & Healt; Office Management & Technology; Office Technology; Pre-Major Accounting; Pre-Major Diesel Tech; Pre-Major Finance; Pre-Major Management; Pre-Major Management Info S; Pre-Major Technology; Public Administration; Science Management; Small Business Administration; Surveying & Mapping; Technology; Telecomm and Electronic System; Telecomm Elect & Computer Tech; UAF/UAA Mech/Elect Engr Consot; Welding Technology
	Kachemak Bay	Accounting; Bookkeeping; General Business; Office Management & Technol; Office Technology; Small Business Administration; Small Business Mgmt; Web Foundations; Welding Technology
	Kenai	Accounting; General Business; General Clerical; Mechanical Technology; Office Management & Technology; Office Technology; Petroleum Eng Aide; Small Business Administration; Small Business Mgmt; Welding Technology
	Kodiak	Bookkeeping; Computer Systems Technology; General Business; General Clerical; Office Management & Technology; Word/Info Processing
	Mat-Su	A+ Preparation (CompTIA certification); Accounting; Administrative Office Support; Applied Science - Telecommunications and Electronic Systems (TES); Architectural and Engineering Technology; Architectural Drafting; Bookkeeping; Business Administration; Cisco Local Academy Networking - Semester 1; Cisco Local Academy Networking - Semester 2; Cisco Local Academy Networking - Semester 3; Cisco Local Academy Networking - Semester 4; Civil Drafting; Computer Information and Office Systems; Computer Systems Technology; Desktop Publishing and Graphics; General Clerical; MCSE - Semester 1; MCSE - Semester 2; MCSE - Semester 3; Mechanical and Electrical Drafting; Medical Office Support; Net+ Preparation (CompTIA Network+ certification); Office Management & Technology; Office Technology; Small Business Administration; Telecommunications, Electronics and Computer Technology; Web Foundations
	Prince William Sound	Office Management & Technology; Office Occupations
University of Alaska Fairbanks		
	Bristol Bay	Applied Business; Office Management & Technology
	Fairbanks	Accounting; Accounting Technician; Applied Accounting; Applied Business; Applied Business Mgmt; Arctic Engineering; Business Administration; Civil Engineering; Computer Science; Culinary Arts; Drafting Technology; Electrical Engineering; Engineering; Engineering Non-Major; Environmental Engineering; Environmental Quality Engineer; Environmental Quality Science; Geological Engineering; Management Non-Major; Mechanical Engineering; Medical/Dental Reception; Mining Engineering; Office Management & Technology; Petroleum Engineering; Science Management; Science, Engr & Math Non-Major; Software Engineering
	Interior-Aleutians	Applied Accounting; Applied Business
	Kuskokwim	Applied Accounting; Applied Business; Office Management & Technology
	Nome	Applied Business

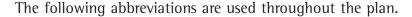
Training Provider	Location	Training Programs
University of Alaska Fairbanks		
	Rural College	Accounting; Accounting Technician; Applied Accounting; Applied Business; Applied Business Mgmt; Business Administration; Civil Engineering; Computer Science; Culinary Arts; Drafting Technology; Electrical Engineering; Engineering Non-Major; Geological Engineering; Mechanical Engineering; Medical/Dental Reception; Mining Engineering; Office Management & Technology; Petroleum Engineering; Software Engineering
	Tanana Valley	Accounting; Accounting Technician; Applied Accounting; Applied Business; Applied Business Mgmt; Business Administration; Civil Engineering; Computer Science; Culinary Arts; Diesel/Heavy Equipment; Drafting Technology; Electrical Engineering; Engineering Non-Major; Geological Engineering; Management Non-Major; Mechanical Engineering; Medical/Dental Reception; Mining Engineering; Office Management & Technology; Petroleum Engineering; Renewable Resources; TVC Administrative Assistant Academy
University of Alaska Southeast		
	Juneau	Accounting; Accounting Technician; Apprenticeship Technology; Business Administration; Computer Info Office Systems; Construction Technology; Diesel Technology; Environmental Science; Introduction to Industrial Construction; Management; Office Administration; Power Technology; Pre-Major Business Administ; Pre-Major Environmental Sci; Public Administration; Small Business Mgmt
	Ketchikan	Accounting; Accounting Technician; Business; Business Administration; Computer Info Office Systems; Hospitality Industry Mgt; Welding Technology
	Sitka	Accounting; Apprenticeship Technology; Business Administration; Business Technology; Computer Info Office Systems; Environmental Technology; Small Business Mgmt; Welding Technology
Vocational Training & Resource Center		
	Juneau	40 Hour Hazwoper; Commercial Drivers License (CDL) Class A Driver Training; Commercial Drivers License (CDL) Class A/B Refresher; Commercial Drivers License (CDL) Class B Driver Training; Commercial Drivers License (CDL) Class B Fast Track; NCCER Carpentry Level I
Wayland Baptist University		
	Anchorage	Business Administration; Management; Occupational Education
Wilderness Medicine Institute		
	Talkeetna	Wilderness First Responder
Yuut Elitnaurviat		
	Bethel	Auto CAD; Carpentry; Electrical; General Construction; Plumbing

Source: Eligible Training Provider Report. Information in this table is from the Eligible Training Provider program (ETP). Each year Department of Labor and Workforce Development, Research and Analysis Section, collects program information from training providers on the State ETP list as required by the Workforce Investment Act, Title I-B. For further information about this report, contact Brian Laurent at 907.465.5854 or at brian.laurent@alaska.gov. Alaska Department of Labor and Workforce Development, Research and Analysis Section (January 2008).









ABE Adult Basic Education

AGIA Alaska Gasline Inducement Act

AKCIS Alaska Career Information System

ANSEP Alaska Native Science and Engineering Program

AVTEC Alaska Vocational Technical Center

AWIB Alaska Workforce Investment Board

CTE Career and Technical Education (formerly known as Vocational Education)

CTSO Career and Technical Student Organizations

ESL English as a Second Language GED Graduate Equivalency Degree

DEED Department of Education and Early Development

DOLWD Department of Labor and Workforce Development

OJT On the Job Training

SCANS Secretary's Commission on Achieving Necessary Skills

STEP State Training and Employment Program
TVEP Technical Vocational Education Program

UA University of Alaska

WIA Workforce Investment Act





Alaska Department of Labor and Workforce Development

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