

Alaska Workforce Investment Board

May 24, 2016

ACTION ITEMS

RESOLUTION NUMBER 16-04
RESOLUTION IN SUPPORT OF THE
Alaska Mining Workforce Development Plan
DRAFT

WHEREAS, a mining workforce assessment was completed; and between 2015-2022 the mining industry projects demand for 2,000 new workers for operations; and

WHEREAS, Alaska mining employers are contending with a 'graying' workforce, and seek to expand the number of Alaskans throughout the state who have the employability and technical skills, expertise and motivation to be competitive in the job market; and

WHEREAS, the Alaska Mining Workforce Development Plan is a call to action for industry, educators, state, local and tribal government to work together to keep this economic sector vibrant, to grow the number of Alaskans comprising this workforce and to ensure Alaskans are qualified to fill the skilled and well-paid Alaska mining positions; and

WHEREAS, the Alaska Mining Workforce Development Plan seeks to address issues of workforce recruitment, retention, training in job readiness and in core competencies and ongoing professional development in emerging and high demand occupational categories; and

WHEREAS, Registered Apprenticeships for core driller and other mining occupations have a track record of improving Alaska Hire and rates of Alaska Native hire when they are used for major mining operations; and

WHEREAS, the Alaska Mining Workforce Development Plan will be implemented most effectively through an industry-led process that involves the joint efforts of industry, the State of Alaska, the University of Alaska system, regional training centers and other education providers, organizations, local and tribal governments, the K-12 educational system and other training providers; and

WHEREAS, the Alaska Miners Association Human Resources Committee will oversee implementation of this plan and will regularly assess and report on outcomes.

NOW THEREFORE BE IT RESOLVED that the Alaska Workforce Investment Board supports the Alaska Mining Workforce Development Plan and the cooperative efforts of the Industry Advisory Committee and other stakeholders to implement the strategies contained in the plan.

CERTIFICATION

The Alaska Workforce Investment Board held a meeting duly and regularly called, noticed and convened this 24th day of May, 2016 and the foregoing Resolution was adopted unanimously at said meeting.

Signed this 24th day of May, 2016

Larry Bell, Chair
Alaska Workforce Investment Board



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AWIB Executive Committee,

First of all, thank you to this committee for allowing us to present to the sub-committee in March and for voting to elevate the plan for endorsement to the next level.

We have a workforce development committee through AMA, and that committee is made up of key representatives from each operating mine and many projects in the development/exploration/permitting phase, as well as training programs and educational leaders throughout the state. We recognized the need for a mining workforce development plan, as jobs in the mining industry more than doubled between 2001-2013 and several advanced projects in the state identified the need to develop a workforce development plan in an effort to hire a trained workforce in the future.

In 2013, we recognized that mining was poised to play an even greater role in the states economy between 2016-2020 than it did back then, and with the help of our operating mines and proposed projects, we completed a needs assessment of the industry, which identified a high number of jobs that will be needed in our industry over the next decade, as well as key priority occupations based on workers needed in large numbers and those with special skill and short supply.

At that point, our workforce development plan was initiated. Based on the needs assessment, input from industry and a review of workforce development plans from other industries, the AMA WFD Committee selected 6 major workforce development strategies for emphasis.

Those strategies are: Career Awareness, Engagement, Career Pathways, Training, Retention & Employee Development, and Collaboration for Sustainability. Many of these strategies go right along with the AWIB endorsement criteria, which we hope you are pleased to see and will be taken into consideration should the committee decide to adopt a resolution to endorse our plan.

For each of the 6 strategies mentioned above, action steps, resources and evaluation measures have been identified, which is outlined in detail in the workforce development plan you've been provided with.

After the completion of our workforce development plan, we presented to the full AWIB Board in early 2015. We are now requesting AWIB's endorsement of the plan and hope that you'll put it on the website with other industry plans on the resources page.



We received the AWIB endorsement policy from Heather earlier this year and are proud to say we have already made significant implementation progress since the plan was released in December 2014.

Significant progress on our plan includes MAPTS Surface Training development, Mill Operator Training under development, and Career Outreach being developed by Alaska Resource Education. We have been very active in a Cross-Industry Workforce Development Committee. The EXCEL Alaska program has developed a heavy equipment operator career pathway in partnership with Donlin Gold and MAPTS and there will be 10 students attending a 2-week MAPTS heavy equipment operator training the end of May and they already have job offers following the training (excellent example of a mining career pathway). There is a Mill Operator Registered Apprenticeship at Red Dog and other apprenticeships being offered in mining careers with Greens Creek, Usibelli Coal Mine and Red Dog Mine.

We do want to emphasize that Alaska Miners Association and our WFD Committee is the organization responsible for monitoring progress of the plan on a regular bases and we are already planning an update of the "timeline" section of the needs assessment for the potential projects that have had changes due to commodities prices (e.g. Pebble, Livengood, etc.) that have impacted their permitting and construction timelines. In the updated version/addendum, we do plan on reporting progress made since the plan was released, as well as highlighting some strategies for success that have been suggested to our committee recently, including an emphasis on existing apprenticeship programs with operating mines.

As we mentioned before, this plan has already made significant progress and has earned the stamp of approval from our industry and others. Thank you for advancing the plan to the Executive Committee and for your consideration to endorse it.

Please let us know if you have any questions or comments on the Mining Workforce Development Plan.

Regards,

A handwritten signature in cursive script, appearing to read "Deantha Crockett".

Deantha Crockett
Executive Director
Alaska Miners Association
AWIB Board Member 2013-2015

A handwritten signature in cursive script, appearing to read "Meg Day".

Meg Day
AMA Workforce Development Committee
Chair



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executive summary

Mining permeates the history and popular image of Alaska in a way that no other industry matches. Placer gold exploration and mining began with the Russians in the early 1800s. After acquisition by the United States, exploration and mining continued and gradually increased for both hard rock and placer minerals. Employment in the mining industry peaked in 1916 at almost 8,600 workers, after which the industry began to decline as a result of mine disasters, fixed gold prices and global wars.

At statehood in 1959, the mining workforce had shrunk to one-fifth its peak level—to 1,700—and hovered near that number until a series of discoveries over the last several decades led to new mining operations in the Southeast, Interior and Arctic regions of the state. Today's industry is dominated by six major producing mines with an annual direct employment of 4,600 in 2013.

Jobs in the mining industry more than doubled between 2001 and 2013, with increases in gold mining responsible for most of the growth. Wages have also shown significant

growth, up 22 percent between 2002 and 2011 compared to an eight percent growth during the same period for all private sector wages. The average annual wage for a mine worker in 2012 was around \$100,000, second only to oil and gas workers and twice the state average.

Mining is poised to play an even more major role in the state's economy than it does today. At present, there is considerable exploration and development activity occurring in many areas of the state, led by eight major advanced exploration projects. Exploration and development expenditures in 2012 amounted to \$335.1 million and \$343.4 million respectively.

The long timeline from exploration to production coupled with the industry's vulnerability to changes in world commodity prices, financing, global economic conditions and environmental



regulations make it difficult to predict with pin-point accuracy what the future holds in terms of employment. However, a survey of operating and proposed projects conducted by the Alaska Miners Association in 2013 suggests that over the next decade the industry could add 2,000 jobs. Alaska Department of Labor and Workforce Development projections—which are based on a variety of factors including historical trends, population projections and expected economic changes—are lower, but even these projections indicate a 24.8 percent increase in employment from 2012 to 2022.

Within the current workforce, there is considerable aging of higher skilled employees; for example, 47.1 percent of mechanics, 51.1 percent of mining materials engineers and 65.4 percent of mining machine operators are 45 years of age or older. Although attrition across the industry is fairly low, some of the more remotely-located mines can experience an annual turnover of up to 20 percent.

Faced with the challenges of attrition and aging within the current workforce, competition from the global mining industry as well as other resource development industries in Alaska and the increased demand from new mining projects across the state, the mining industry embarked on a workforce development planning process in 2011. Headed up by the Human Resources Committee of the Alaska Miners Association (AMA HR), the process has resulted in this Alaska Mining Workforce Development Plan. The goal of the plan is to assure that a well-trained workforce is available to staff current and planned mining operations in the state.



As an integral part the planning process, AMA HR completed a workforce assessment in 2013 to obtain data on the current mining workforce for six large mining operations and the projected workforce for eight major projects. The survey results identified high priority occupations based on workers needed in large numbers and those with special skills and short supply. The bulk of these priority positions fall into four career clusters.

Heavy Equipment Operations

Underground Miner

Drillers and Blasters

Haul Truck Drivers

Equipment Operators

Maintenance Technicians

Millwright

Diesel Mechanic

Electrical and Instrumentation

Process Technology

Mill Operator

STEM/Engineering

Mining Engineer

Mechanical Engineer

Geologist

Metallurgist

Metallurgy, Chemical, Geological and Environmental Lab Tech

Two other priority occupations were identified in the needs assessment that require industry attention: *Health and Safety Specialist* and *Permitting Specialist*.

The assessment process identified and contacted training providers to obtain information on current and planned programs. Alaskan training and education institutions have a number of programs that can prepare Alaskans for most of the entry level positions in the various mining occupations. There are some gaps, both in programs—such as metallurgists—and in terms of numbers of “graduates” from the program—such as machinists, mechanics, and geo-technologists.

With these few exceptions, the larger issue with the current training picture in the state is not availability but access. For many of the priority occupations, training may be offered but at a site that requires relocation by a potential employee. Such relocation can be expensive not only in terms of financial outlay but also in time away from family and often results in the student dropping out of the training before completion. Providing training at multiple locations throughout the state is a more efficient way of meeting workforce needs.

Many of the priority occupations in mining are similar to those in construction and other resource development industries. This commonality has significant implications for workforce development strategies in that a variety of existing training programs can be utilized with limited additional content or on-the-job training needed to develop a productive mine worker.

Based on the needs assessment, input from industry and a review of workforce development plans from other industries, the AMA HR Committee selected six major workforce development strategies for emphasis. Action steps, resources and evaluation measures have been identified for each strategy.

Career Awareness

Strategy 1.0: Increase awareness of career opportunities in the mining industry. Mining offers a wide range of long-term careers in almost all regions of the state. Young people in particular need a clear picture of the careers available and the skills needed to access these careers. Mining can provide opportunities for returning veterans and other adults with prior training and experience in other industries to secure employment in or near their communities.



Engagement

Strategy 2.0: Engage Alaskans in mining workforce development. Timely and accurate information about the labor demands of mining projects—both proposed and operating—is needed throughout the state but especially in regions that host the projects. Such information is important not only to encourage employment in the industry but also to develop and support the policy and fiscal initiatives necessary to address critical workforce shortages.

Career Pathways

Strategy 3.0 Establish and support Career Pathways in Mining. Accessing a career in today's mining industry can be complex. Students need a clear road map to navigate their route from school to the workplace, a roadmap that begins as early as middle school. Career pathways are designed to provide this roadmap and to allow a student to transition easily from one academic level to another and eventually to employment in a selected career.



Training

Strategy 4.0: Train Alaskans for mining industry employment. Developing a skilled mining workforce rests on a strong system of training in the state. Such a system is characterized by coordination of training resources among the various providers; alignment of training with industry standards; collaboration among industries with similar workforce needs; and development of robust career ladders within the individual projects.

Retention and Employee Development

Strategy 5.0: Retain and develop the incumbent mining workforce. Securing an adequate workforce is only part of the equation. Equally important is keeping the workforce in place. A positive work environment that respects the culture of the region and training that allows upward movement on a career ladder provide incentives for employees to make a long-term commitment to a company or project.

Collaboration for Sustainability

Strategy 6.0: Promote the involvement and collaboration of industry, training providers and funding agencies in implementing and sustaining the Alaska Mining Workforce Development Plan. Implementing the action steps outlined in this plan is beyond the scope, authority or resources of any one industry player, government agency or educational institution. Building an effective, predominantly Alaskan mining workforce requires the energy and coordinated effort of many actors from both the private and public sectors of the state.

The plan concludes with action steps identified for each of the priority occupations. These action steps stress the need for program alignment across training institutions, collaboration among training partners and industry sectors and regionalization of program delivery.



Advanced Exploration Projects

Bokan-Dotson Ridge Rare Earth - Rare earth elements

- Exploration from 1971 to 1981; renewed drilling program started in 2007
- Preliminary economic analysis and economic impact study released in 2013
- 190 potential production jobs

Chuitna - Coal

- Currently in the permitting process; anticipate draft permit decisions in 2014-2015
- 300-350 potential production jobs

Donlin Gold - Gold

- Discovered in 1988, continued exploration since 1995
- Permitting process began in 2012
- Up to 90% Calista shareholder hire at its camp
- Up to 1,400 potential production jobs, depending on the production timeline
- Livengood
- Gold
- Placer mining began in 1914, lode exploration in 2003
- Approximately \$210 million invested to date
- Completed feasibility study in 2013
- 450 potential production jobs

Niblack - Copper, gold, silver, and zinc

- Ongoing exploration for more than 30 years
- \$37 million invested since 2009
- Now focused on engineering, environmental, and other studies to support prefeasibility study
- 200 potential production jobs

Pebble Project - Copper, gold, and molybdenum

- Discovered in 1987 on State of Alaska land, ongoing exploration, engineering, and environmental studies since 2002
- Over \$150 million spent on environmental baseline studies
- Approximately 1,000 potential production jobs

Upper Kobuk Mineral Projects - Gold, silver, copper, and zinc

- Intermittent exploration from 1965 to 1998 and renewed efforts starting in 2004
- Preliminary Economic Assessments (Arctic) completed for underground & surface operations
- Exploration at Bornite continued in 2013 with updated resource statements expected in 2014
- Peak of 80 employees in 2013

Wishbone Hill - Coal

- First mined in 1916
- Project feasibility study completed in 2011
- 75-125 potential production jobs

Producing Mines

Fort Knox Mine - Gold

- Alaska's largest producing gold mine
- Largest single property taxpayer in the Fairbanks North Star Borough
- Discovered in 1984, producing since 1996
- 630 employees in 2013

Greens Creek Mine - Silver, zinc, gold, and lead

- Among the top 10 silver producers in the world
- Largest Southeast Alaska for-profit employer, in terms of payroll
- Discovered in 1975, producing from 1989 to 1993, and continuously since 1996
- 400 employees in 2013

Kensington - Gold

- Surpassed 100,000 ounces of gold in 2013
- Second largest private employer in Southeast Alaska in terms of payroll; over \$38 million in 2013
- Largest payer of property tax in the City & Borough of Juneau
- 306 full-time, year-round employees in 2013

Pogo Mine - Gold

- Discovered in 1994, producing since 2006
- 320 full-time employees in 2013
- Paid \$56 million in wages and benefits in 2013
- Capital spending exceeded \$57 million in 2013

Red Dog - Zinc, lead, and silver

- One of the world's largest zinc concentrate producers
- Only taxpayer in the Northwest Arctic Borough
- Discovered in 1968, producing since 1989
- 639 employees (including 131 contractors) in 2013

Usibelli Coal Mine - Coal

- In continuous production since 1943
- 140 full-time year-round employees in 2013
- Alaska's only operating coal mine, exporting about half of its production in 2013
- Fuels 30% of Interior Alaska's electricity



P164-20 Alaska State Library William Baird/Alaska Photograph Collection

introduction/ goals

General description of industry

Mining permeates the history and popular image of Alaska in a way that no other industry matches. Placer gold exploration and mining began with the Russians in the early 1800s. After acquisition by the United States, exploration and mining continued and gradually increased for both hard rock and placer minerals. The discovery and development of the A-J and Treadwell gold deposits eventually led to the location of the State Capitol in Juneau. The Juneau-area finds were followed by the discovery of the Fortymile, Central, Nome, Fairbanks, Iditarod, and many other significant placer gold districts.

Employment in the mining industry peaked in 1916 at almost 8,600 workers, after which the industry began to decline as a result of mine disasters, fixed gold prices and global wars. At statehood in 1959, the mining workforce had shrunk to one-fifth its peak level—to 1,700—and hovered near that number until a series of discoveries over the last several decades led to new mining operations in the Southeast, Interior and Arctic regions of the state.

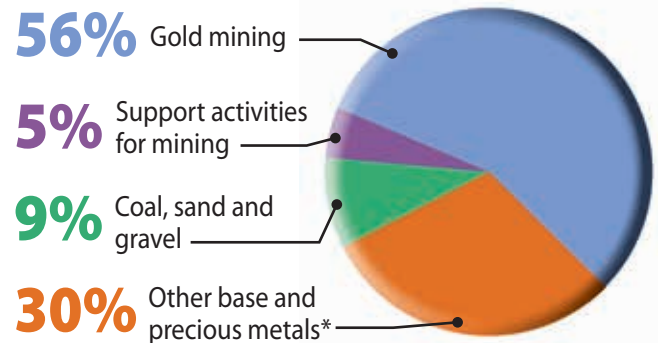
Today's industry is dominated by six major producing mines (Figure 1) with an annual direct employment of 4,600 in 2013¹. Large-scale mining operations are found throughout the state, from Greens Creek near Juneau to Red Dog, near Kotzebue. Around 300 small placer mining operations also operate in various locations.

Gold is the mineral most associated with Alaska and it still holds pride of place, accounting for 45 percent of production value from operating mines and more than half the mining jobs and wages.

¹ Based on McDowell Group, Inc. estimates reported in *The Economic Benefits of Alaska's Mining Industry*, Alaska Miners Association, Inc., January 2014. Data obtained by survey of operators and planned projects. Includes exploration and development employment.

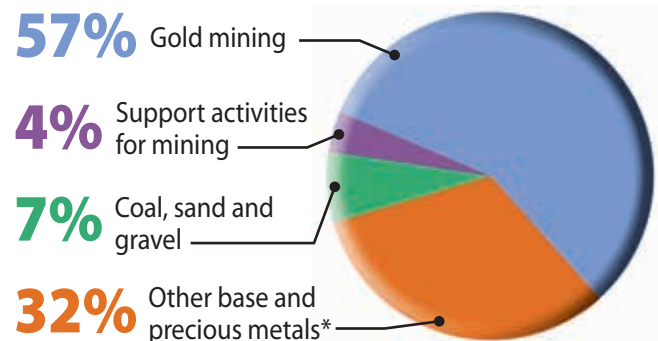
Mining Employment and Wages by Industry Alaska, 2013

Employment



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Wages

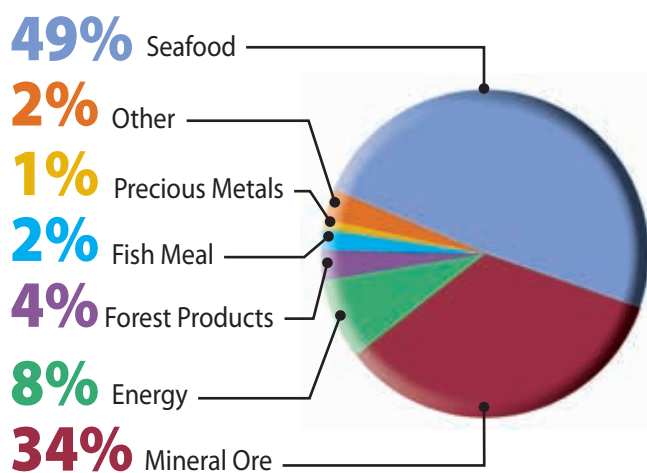


Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Five of the eight advanced exploration projects are based on gold. Spurred by a record-setting pace at Fort Knox Mine, Alaska gold production topped 1 million ounces during 2013, a milestone last achieved in 1906.

But gold is only one of the minerals mined in the state. The Red Dog Mine is one of the world's largest zinc concentrate producers, accounting for around one-third of Alaska's annual total mining production value. Silver, lead, coal, peat and industrial minerals also add to the production value. Mining output in 2013 of \$3.4 billion² represented around six percent of total Gross Domestic Product (GDP) for the state in that year. Exports of mineral ore and precious metals reached \$1.6 billion in 2013, accounting for 36 percent of total Alaskan exports. Zinc, which has led in export value in this decade, retained its top role in 2013, making up about one-fifth of the total state exports.

Exports Alaska, 2013



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

While mining is important to the state as a whole, it has an even greater presence in some regions of the state. For example, Red Dog Mine in Kotzebue employed 639 persons in 2013 representing 35 percent of total private sector employment for the Northwest Arctic Borough. Greens Creek and Kensington Mines in Southeast are the first and second largest for-profit private employers in the region. Usibelli Coal mine fuels 30 percent of Interior Alaska's electricity. Mining operations are the most significant taxpayers for the Northwest Arctic, Fairbanks North Star, Denali and Juneau Boroughs and the City of Nome. Mining development, exploration and operations are becoming an increasing part of Alaska Native Land Claims Settlement Act (ANCSA) corporations' portfolios.

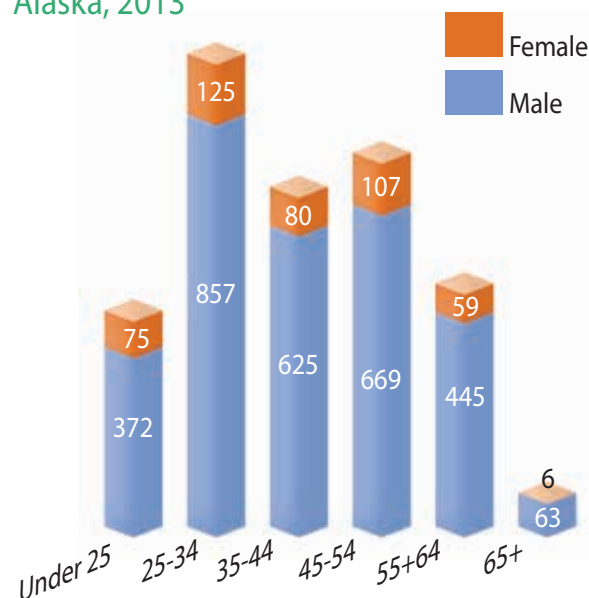
² Ibid

Employment

Jobs in the mining industry more than doubled between 2001 and 2013, with increases in gold mining responsible for most of the growth³. Wages have also shown considerable growth, up 22 percent between 2002 and 2011 compared to an eight percent growth during the same period for all private sector wages. The average annual wage for a mine worker in 2012 was around \$100,000, second only to oil and gas workers and twice the state average. The mining payroll accounts for 2.1 percent of the state's total private sector wage bill.

The current resident mining workforce is mostly male, with women workers making up only 14.9 percent of the total. Age distribution of resident workers is fairly evenly distributed, with around 60 percent under the age of 45.

Resident Mining Workers by Age, Sex Alaska, 2013



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

However, there is considerable aging of the higher skilled workforce; for example 47.1 percent of mechanics, 51.1 percent of mining materials engineers and 65.4 percent of mining machine operators are 45 years of age or older. The mining workforce is made up largely of technicians (about 85 percent), with the remainder in professional and managerial positions.

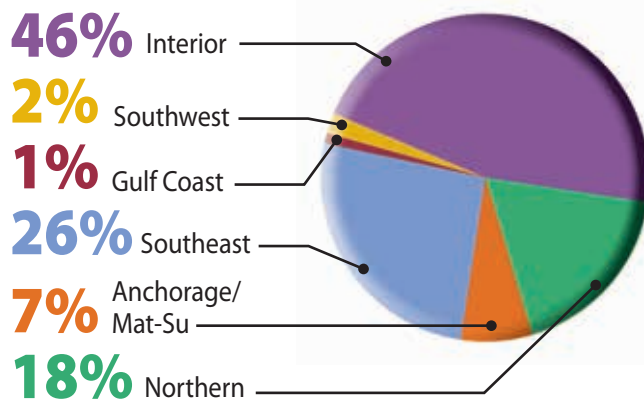
Over one-third of the current workforce (38 percent) is from out of state, partly due to the fact that there is a lack of workers in the state who are trained to fill vacancies and partly because mining companies are often based in other states and countries and benefit from using their existing workers rather than rehiring locally.⁴

³ Wage and employment data in this section are taken from AWOLWD sources.

⁴ Alaska Department of Labor and Workforce Development, *Alaska Economic Trends*, May 2013, p. 8

Most mining jobs are in remote regions of the state, requiring workers to commute. Currently, in-state mine workers reside in 120 communities, half of which are in rural Alaska. Rotation schedules which allow for blocks of off-time in home communities make mining positions compatible with subsistence activities. The remote locations, however, can also lead to a high turnover rate. Attrition in on-going mining operations averages about 5 percent per year but may reach as high as 20 percent in some more remotely-located sites.

Mining Employment Alaska, 2013



Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section

Mining utilizes many of the same skills as construction and other resource development projects. This commonality has several consequences. While mining companies face competition for employees from these other industries, trained workers can move fairly easily from one industry to another, with limited on-the-job training in the equipment or processes particular to a specific project. This latter consequence can be important in rural areas of Alaska, where much of the new mine development is taking place. Many village residents have had some training for local construction and/or facility maintenance and waste water treatment positions, creating a pool of labor that could transition into mining jobs.

The mining Industry workforce has several defining characteristics:

- Mining occupations range from low-skill entry-level jobs such as haul truck driver to high-skill, complex jobs such as mining engineer or jumbo drill operator.
- Many types of disciplines are employed, some very mining specific such as blaster or metallurgist and some with little difference from other industry, such as accountant or administrative assistant
- Mining positions have varying training requirements, from short-term training in basic safety and mining orientation to multi-year degree programs, including the doctoral level

- The different phases of a mining operation from early exploration to design and permitting to construction to operation to reclamation have different staffing requirements, although some jobs are needed across all phases
- Staffing for production varies from very short or seasonal operations to long-term operations lasting decades or even centuries.
- Careers vary from itinerant work at many sites to life-long stable jobs at one mine.
- Operations range from historical “find it, dig it, crush it, refine it” to modern technologies involving new exploration, separation and reclamation methods with state of the art instrumentation and science.

Future



Mining is poised to play an even more major role in the state's economy than it does today. At present, there is considerable exploration and development activity occurring in many areas of the state (see Figure 1, map), with reported expenditures in 2012 of \$335.1 million and \$343.4 million respectively for exploration and development. As of fall, 2014, the Donlin Gold project is in the draft environmental impact statement stage of permitting while the Pebble Project is engaged in environmental baseline studies. Bokan-Dotson Ridge and Niblack projects have both been authorized to receive financial assistance from the Alaska Industrial Development and Export Authority. In addition to new projects coming on-line, several currently operating mines are engaged in exploration and development and/or have extended the projected life span of their operations. Fort Knox has submitted a request to the Bureau of Land Management to expand its mine into surrounding federal lands. Kensington gold mine is undergoing additional surface exploration. Usibelli plans to open the Jumbo Dome mine in 2014. Pogo is expected to continue operating past its

Mining Exploration Timeline



Mining Production Timeline



Environmental Studies, Protection, and Reclamation →

originally projected 2019 life span and Red Dog is expected to produce from current deposits until 2031.

The mining exploration timeline from the identification of mining potential to mine operation is considerable, making it difficult to predict with pin-point accuracy what the future holds in terms of employment. As noted in a recent (October 2014) publication by the Alaska Department of Labor and Workforce Development (ADOLWD):

Because [mining] projects have such a volatile relationship with their respective commodity prices, financing, global economic fluctuations and environmental regulations, it's impossible to predict which projects will proceed. The outlook for the industry is positive but a significant decline in mineral prices would change that picture.⁵

However, a survey of operating and proposed projects conducted by the Alaska Miners Association in 2013 suggests that over the next decade the industry could add 2,000 jobs.

ADOLWD projections—which are based on a variety of factors including historical trends, expected economic changes, Alaska and U.S. population projections and other industry-specific variables such as knowledge of planned projects—are lower, but even these projections indicate a 24.8 percent increase in employment from 2012 to 2022.

AMA WFD Planning Process

Faced with the challenges of attrition and aging within the current workforce, competition from the global mining industry as well as other resource development

industries in Alaska and the increased demand from new mining projects across the state, the mining industry, through the Alaska Miners Association (AMA), embarked on a workforce development planning process. A Mining Industry Workforce Development Symposium in November 2011 kicked off planning by bringing together industry, education providers and government agencies to identify



workforce development issues and share information about resources that could contribute to the planning effort. In 2012, the Human Resources (HR) Committee of AMA recommended that the association undertake an industry workforce development strategy and prepare a plan with collaboration from all stakeholders: operating mines, projects and independents along with training providers and state agencies.

The AMA HR Committee, which was given responsibility for overseeing the process, unveiled the Mining Workforce Development Initiative at the Spring 2013 AMA meeting. The committee has met regularly since early 2013 and has accomplished the following:

Figure 7: Growth for Next Decade

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Total Jobs	2102	2237	2400	2595	2595	2615	3115	3395	4395	5395
New		135	166	195	10-20	500	300	1000	300	1000
Attrition		116	121	133	135	130	131	156	170	219
Total Hire		251	287	328	155	630	421	1156	470	1219

⁵ ADOLWD, Alaska Industry Forecast, 2012 – 2022, Alaska Economic Trends, October 2014, p. 6

- Conducted a basic needs assessment for operating mines and proposed projects that resulted in information about current attrition rates, proposed hiring timelines and numbers of employees anticipated, by occupation
- Identified priority occupations from those comprising the largest part of the workforce and the most difficult to fill
- Assessed current capabilities in the state for training for priority occupations
- Conducted a survey for best practices in recruitment and retention
- Prepared this workforce development plan for distribution to the industry, training partners and state agencies.

Workforce Development Goal and Vision

The goal of the *Alaska Mining Workforce Development Plan* is to assure that a well-trained workforce is available to staff current and planned mining operations in the state.

In preparing the plan, the AMA HR Committee was guided by the following vision.

- The mining workforce will be composed largely of Alaskans at all levels of employment within the industry, with an emphasis on regional and local hire
- The mining workforce will be diversified, reflecting the population of the state
- Mining workforce training programs will stress soft skills (work readiness) and safety as well as technical skill development
- Mining workforce development will be a cooperative effort among industry, public and private training providers, state and local governments and Alaskan Native partners
- Mining workforce development will be coordinated with other process industry/resource development workforce efforts

Needs Assessment

The AMA workforce assessment completed in 2013 focused on mining operations jobs although some skills for operations jobs are similar to those needed in other phases of a mining project. Mining-specific jobs in exploration



were included in the assessment but not construction jobs as several assessments for that industry have been made by other entities. The needs assessment was based on the current mining workforce for six large mining operations and on the projected workforce for eight major projects. Coal was included but sand and gravel operations were not, although there are a number of jobs in these operations that are the same as the mineral mining operations.

The operations workforce differs for underground and surface mines for many jobs but most have some common skill needs. Major categories include process operators, equipment operators and maintainers, mine engineers and geologists, and mine-site support functions from catering to security and safety personnel. For gathering data on both current and future workforce needs, 49 occupations common to the mining industry were selected from a list of several hundred.

Findings

Workforce data was provided by all of the currently operating underground and surface mines, including coal. Data for the current operations showed a high level of local resident hire for low-skill or transferrable skill jobs from other industries, such as equipment operations, drilling and maintenance. Projects often need to import skilled workers for the high-skill and mining-focused jobs, such as metallurgists, experienced underground miners and mining engineers. Attrition for the current operations averaged 5 percent per year although the range was from one to 20 percent over the last three years.

From the data, a list of high priority occupations was developed based on workers needed in large numbers and those with special skills and short supply (Figure 8). Taking

into account attrition in operating mines and projections for new mine start-up there is an estimated need for over 200 new workers from all categories by 2015. In the following seven years (2015-2022), planned new major project start-ups are estimated to require almost 2,000 new workers for operations.

Figure 8. Priority Occupations

Based on numbers in the current and projected workforce

Underground Miners

Mill Operators

Drillers and Blasters

Mechanical Maintenance

- Millwrights
- Diesel Mechanics

Haul Truck Drivers

Equipment Operators

Based on difficulty to recruit

Electrical and Instrumentation Maintenance Technicians

Mining Engineers

Mechanical Engineers

Geologists

Metallurgists/Metallurgy Technicians

Geological, Chemical and Environmental Lab Technicians

Health and Safety Specialists

Permitting Specialists



The two classes of identified priority occupations have several distinct characteristics which have implications for workforce development strategies. For example, while mining experience is always looked for in the occupations most utilized in the workforce (Column 1 in Figure 8), these jobs all have entry-level positions. Many of these positions are also similar to those found in construction and other resource-related industries. These large-number occupations account for around 80 percent of the workforce. On the other hand, most of the occupations that are difficult to fill (Column 2, Figure 8) have degree and experience requirements and several have a heavy mining focus. Development of this workforce will require a much longer-term effort.

Resourcing

All of the operating mines have strategies to utilize as much local /regional hire as possible. Currently, mining entities have around 62 percent Alaskan hire according to 2012 ADOLWD data. The intent of all of the mines surveyed is to have an Alaskan workforce dominate the direct workforce and to utilize suppliers and other in-directs with Alaskan employees. Since the state does not have a large workforce trained for the direct jobs with mining-specific skills, training for local, regional and state residents will be a needed step in staffing.

For large projects with major construction efforts, a resource for the operations workforce will be to utilize a number of the personnel from construction who have the same skills set as workers in operations. A key for the mining companies will be to influence recruitment and training of local residents for both construction and operations (legacy) jobs.

Training Assessment

Training providers were identified and contacted to provide information on current and planned programs. The University of Alaska (UA) has a number of programs that are key to building a workforce, including the UAF College of Engineering and Mines which prepares professional-level career employees and the Mining and Petroleum Training Service (MAPTS) unit which focuses on safety and entry-level training. The University is working to align its current mining-related programming and to expand into new areas of needed training. To spearhead this effort, UA President Gamble established the system-wide Consolidated Alaska Mining Initiative (CAMI), aimed at meeting the skilled workforce needs of the mining industry. Two recent events have greatly increased the University's ability in this area:

- In early 2014, UA and Yukon College signed a memorandum of agreement for MAPTS training at the Delta Mine Training Center in Interior Alaska. The Center features an underground mine, rock and gravel quarries, one hundred acres of training area, and equipment and machinery necessary for modern mining and construction training. The partnership with Yukon College provides MAPTS the ability to jointly develop and test the curriculum, establish a lease of the Delta facility and build capacity to provide long-term Alaska-based training. In addition, Yukon College has agreed to allow MAPTS the continued use of their two large capacity simulators that will remain located at the Delta facility. The use of an actual underground mine facility allows students the necessary hands-on skills training combined with the camp life experience.
- Through CAMI member efforts, a major new training resource became available in Fall 2014 with a grant to UA under the U.S. Department of Labor Trade Adjustment Assistance Community College and Career Training (TAACCCT) program. With grant funding, an in-state consortium comprised of UAF College of Engineering and Mines, UAA, UAS and MAPTS will develop or expand programs for the positions of Mill Process Operator, Underground and Surface New Miner and Mine Mechanic. UAF will also use the funding to create a mill process simulator, a training tool that does not exist anywhere in the world.



Other training providers in Alaska offer preparation for some of the occupations. A list of current training programs that match the occupations identified as high priority is found in the Priority Occupations section of this plan. Since some of the identified programs are generic, they may not fit a particular company. An example

would be the process technology program at UA sites which provides many skills relevant to mill operators but is not sufficiently oriented to mining operations. A more specific mill operator program is being created under the TAACCCT grant referenced above. An important role for mine operators is to work with the providers to assure that industry standards are met and the training is relevant for Alaskan operations.

For some jobs, degrees or certifications from training programs are prerequisite of mining companies. However, for operations and maintenance workers, the federal government requires the addition of MSHA certification of worker competence assessed by the mining operator. For example, a prerequisite for a “hauler” is training on haul-truck operation but the company is responsible for certifying the hauler on the specific trucks used by that mine (task training).

While Alaskan training and education institutions have a number of programs that can prepare Alaskans for most of the entry level positions in the various mining occupations, there are some gaps, in terms of both programs—such as metallurgists—and in numbers of “graduates” from the program—such as machinists, mechanics, and geotechnologists.



With these few exceptions, the larger issue with the current training picture in the state is not availability but access. For many of the priority occupations, training may be offered but at a site that requires relocation by a potential employee. Such relocation can be expensive not only in terms of financial outlay but also in time away from family and often results in the student dropping out of the training before completion. Providing training at multiple locations throughout the state is a more efficient way of meeting workforce needs. Because most of the priority occupations identified for the mining industry have strong skill commonalities with those of construction and other resource development industries, providing a generic training program regionally could serve the needs of many employers.

The initial phases of any project will need to have readily available, skilled workers to fill the jobs but short-term training on or near-site for local workers may be appropriate with plans to bring on trainees early to fill in the gaps as attrition occurs. Most local regions have a number of workers with appropriate skills who live in many villages and towns across the region, although few have mining experience. Training providers such as MAPTS can be utilized for short, “just-in-time” pre-employment programs to move these experienced workers quickly into mining jobs.



development strategies

Based on the needs assessment, input from industry gathered at the workforce symposium and other industry events and a review of workforce development plans from other industries, the AMA HR Committee selected six major workforce development strategies for emphasis.

Career Awareness

Strategy 1.0: Increase awareness of career opportunities in the mining industry

Rationale: Many Alaskans have a “pick and shovel” view of the mining industry shaped by its role in the history of the state. Not all recognize that today’s mining industry is highly technological and committed to environmentally-responsible resource development. Mining offers a wide range of long-term careers in almost all regions of the state. Young people especially need a clear picture of the careers available in mining and the skills needed to access these careers. Because mining projects utilize a cross-section of skills such as construction, heavy machine operation and mechanics, it can provide opportunities for returning veterans and other adults with prior training and experience in other industries to secure employment in or near their communities.

Strategy 1.1: Increase K-12 student awareness of and preparation for employment in the mining industry.

Action Steps

- Develop/disseminate informational materials on careers in mining with attention to women, rural students and other under-represented groups
- Identify and share with school districts industry

standards and appropriate outcomes for secondary training programs, including academic preparation and work-readiness skills

- Work with ADOLWD to gather and align workforce data to leverage existing career exploration tools such as the Alaska Career Information System (AKCIS)
- Support exploratory programs such as mine tours and job shadowing
- Provide student intern and teacher extern opportunities
- Support efforts of other groups that provide career awareness in related fields, such as the Construction Education Foundation, Alaska Process Industry Careers Consortium (APICC), Alaska Resource Education (ARE) and the Alaska Native Science and Engineering Program (ANSEP)

Strategy 1.2: Increase awareness of jobs in the mining industry among adults and out-of-school youth

- Develop communications strategies directed at target adult audiences
- Provide regional outreach to identify and recruit adults, including returning and retiring veterans, into jobs or training programs
- Cooperate with workforce efforts of other industries to develop and provide training in safety, work ethics and basic workforce readiness locally and on-line
- Participate in efforts to increase awareness about choices that may impede employment, such as drug use and criminal records
- Encourage prevention programs and support services to overcome barriers

Resources:

- Career awareness materials
 - Alaska Resource Education (ARE) career cards
 - Pebble and Donlin Mining Careers materials
 - APICC website and materials
 - AKCIS/ALEXsys
- Career Awareness models
 - Construction academies
 - Summer career academies
 - Pathways to Mining Careers (Mining 101) at UAS
 - APICC Teacher Externship program
 - King Career Center Natural Resources Management course
 - Alaska Technical Center magnet program in mining for NANA region secondary students
 - YUUT/MAPTS intensive course
 - EXCEL Alaska Academic and Trades Decathlon
- Agencies/Organizations
 - ADOLWD
 - Alaska Department of Education and Early Development (ADEED)
 - Alaska Department of Commerce, Community and Economic Development (ADCCED)
 - AMA
 - Council of Alaska Producers (CAP)
 - University of Alaska
 - ARE
 - Construction Education Foundation
 - ANSEP
 - APICC
 - MAPTS
 - Business Education Compact
 - Regional training centers
 - School districts

Responsible parties: Industry, ADEED and ADOLWD, local school districts

Evaluation: Evidence that awareness materials have been developed and are being used; outreach programs in communities affected by proposed and operating mining projects have been established.

Engagement*Strategy 2.0: Engage Alaskans in mining workforce development*

Rationale: Timely and accurate information about the labor demands of mining projects—both proposed and operating—is needed throughout the state but especially in regions that host the projects. Such information is important not only to encourage employment in the industry but also to develop and support the policy and fiscal initiatives necessary to address critical workforce shortages. Because mining shares with several other industries demand for a host of skills, collaboration rather than competition is essential.

Action steps

- Conduct an effective public awareness campaign
- Identify local and regional stakeholders, including government, businesses, Alaska Native regional and village corporations and educational institutions
- Develop awareness materials targeted to stakeholders and shareholders
- Continue to enhance the industry's presence with the Alaska Legislature
- Engage industry representatives in state and regional economic development and workforce planning through the Alaska Workforce Investment Board (AWIB), borough planning committees and other state and local efforts

Resources

- AWIB
- ADOLWD
- ADCCD
- APICC
- ARE
- Industry informational materials
- Other process industry/resource development advocacy groups

Responsible parties: Industry, state labor and economic development agencies, natural resource development advocacy groups

Evaluation: Evidence that awareness materials have been developed and are being used; stakeholder/shareholder outreach programs have been established in regions affected by proposed/operating mining projects; industry is engaged on local, regional and state workforce planning efforts.

Career Pathways

Strategy 3.0 Establish and support Career Pathways in Mining

Rationale: Accessing a career in today's mining industry can be complex. Choices made early on in a student's education may limit future options; for example, training for higher-skilled jobs in the industry requires a strong background at the secondary level in math and science. Securing employment at any level requires good work-readiness skills. Students need a clear road map to navigate their route from school to the workplace, a roadmap that begins as early as middle school. Career pathways are designed to provide this roadmap and to allow a student to transition easily from one academic level to another and eventually to employment in a selected career. Research indicates that adding career and technical coursework can increase high school completion rates and that students who have a mix of academic and career education in high school are more likely to continue to postsecondary education/training than those who take the general course of study.⁶

There are four major components to a career pathway:

- Career exploration activities, such as summer camps, field trips, guest speakers, Intro to Mining 101 and other career awareness courses
- Access to career development and goal setting activities, such as creating a personal learning and career plan and industry mentors
- Aligned secondary and postsecondary programs of study with work based learning opportunities such as summer internships and practicums and college preparedness activities.
- Professional development through partnerships with teachers and faculty, getting teachers and faculty into the field, curriculum development for learning outcomes that align with industry expectations.

Work on developing career pathways has already begun. In April 2014, a statewide cross sector steering group was established to oversee the development and sustainability of a Career Pathways resource repository. The group met in September 2014 to discuss the mining occupations in highest demand for Career Pathway development. The group considered the priority occupation list created from the industry Needs Assessment (see Figure 8) and determined that the best approach would be to develop career pathways for four broad career clusters that incorporated most of the priority occupations. The four clusters and related occupations are seen in Figure 9.

⁶ Plank, Stephen, Stephanie DeLuca, and Angela Estacion, *Dropping Out of High School and the Place of Career and Technical Education* (St. Paul: National Research Center for Career and Technical Education, University of Minnesota, 2005).

Figure 9. Career Clusters

Heavy Equipment Operations

Underground Miner

Drillers and Blasters

Haul Truck Drivers

Equipment Operators

Maintenance Technicians

Millwright

Diesel Mechanic

Electrical and Instrumentation

Process Technology

Mill Operator

STEM Engineering

Mining Engineer

Mechanical Engineer

Geologist

Metallurgist

Metallurgy, Chemical, Geological and Environmental Lab Tech

As can be seen, the clusters include occupations that are needed across many industries. Thus, the career pathways provide multiple career opportunities to students. This flexibility is particularly important for the mining industry where the uncertainties occasioned by volatile world commodity prices and the long exploration and permitting process make precise employment projections difficult. A pool of workers who have the skill set to move from job to job with minimal on-the-job training not only serves the industry but also helps to alleviate down time for individual employees.

Action steps needed to complete the career pathways

- Provide industry/employer advice to educators on the technical and employability knowledge, skills, abilities and competencies required at the high school level for entry level jobs in the identified career clusters
- Provide industry/employer advice to educators on the technical and employability knowledge, skills, abilities and competencies required at the postsecondary program of study completion level
- Convene a cross sector stakeholder planning meeting for developing a network, identifying a backbone organization and assigning work groups to build various components of the Career Pathway
- Identify a pilot region for implementing the Career Pathway that best suits the needs of the region's economy, employers and communities

- Disseminate completed career pathways
- Encourage state funding for secondary CTE programs that focus on career pathways
- Support local school districts and post-secondary training providers in implementing career pathways by providing informational materials, awareness activities, student internships and teacher externships

Resources

- UA system
- ADEED
- Local school district career pathway models
- Other process industry/resource development career pathways

Responsible parties: University of Alaska, ADEED, industry, local school districts, regional training centers

Evaluation: Career pathways for career clusters are in place and being used in secondary and postsecondary career preparation and training programs

Training

Strategy 4.0: Train Alaskans for mining industry employment

Rationale: The scope and duration of modern mining projects require the creation of an effective pipeline that allows Alaskans interested in careers in the industry to acquire the necessary skills, transition easily from training to work and move from entry-level to higher-skilled positions. Creating this pipeline requires collaboration with other industries; coordination of training resources among the various training providers; alignment of training with industry standards; and developing robust career ladders within the individual projects. The projects themselves provide valuable training sites through internships, apprenticeships, mentorships and career ladders, all of which require adequate internal resourcing of staff time and money.

Action steps

- Focus on priority occupations identified in the needs assessment
- Assist UA with the development and implementation of programs/activities under the TAACCCT grant
- Identify and share with UA campuses and other training providers industry standards and appropriate outcomes for training programs
- Identify and share promising practices in industry for training
- Advocate support for the regional training center network in the state
- Assure that health and safety issues are adequately covered in all training programs



- Encourage trainers to offer training at local sites, where feasible
- Collaborate with other groups (oil and gas, construction) to strengthen programs in cross-over occupations
- Expand postgraduate opportunities in research and externships
- Encourage projects to include support for in-house apprenticeships, mentorships and career ladders in annual operating budgets
- Require construction contractors to provide trainee slots
- Utilize support companies as a training ground for local employees (camp support, security, safety, logistics)
- Help establish local suppliers
- Target and optimize the use of tax incentives to increase qualified Alaskans in mining occupations
- Provide a centralized site for scholarships, program support, intern/externship opportunities
- Advocate for sufficient funding and adequate resourcing of programs for priority occupations

Resources (examples)

- Training Providers
 - University system
 - Regional Training Centers
 - Private training and education providers
 - Industry
 - Labor Unions
 - Equipment manufacturers and suppliers
- Models
 - North Slope Training Cooperative (NSTC)
 - ATC
 - UA and Yukon Territories joint program at Delta Mine Training Center
 - Canadian Models such as the British Columbia Aboriginal Mine Training Association(BC AMTA)
- Funding
- Individuals
 - Alaska Performance Scholarships
 - Tribal grants and scholarships
 - Individual Training Accounts through the Workforce Investment Act (WIA)
 - Company-funded scholarships

- Industry
 - Education Tax Credits
 - Work Opportunity Tax Credit
 - Federal and State veterans-hire tax credits

Responsible parties: University of Alaska, regional training centers and other providers; ADOLWD, mining and other resource development industries

Evaluation: Training programs that meet industry standards are in place and are readily accessible; processes are established to track student enrollment, success, persistence, completion and placement; methods are in place to assess student and employer satisfaction with training



Retention and Employee Development

Strategy 5.0: Retain and develop the incumbent mining workforce

Rationale: Securing an adequate workforce is only part of the equation. Equally important is keeping the workforce in place. Employee turnover at any level is costly, but especially so in higher-skilled positions. Industry estimates of direct and indirect costs of turnover for an hourly employee are equal to 57 percent of annual compensation⁷. Costs for highly skilled positions can be even greater. The emphasis of most mining projects on local hire necessitates creation of a positive work environment that respects the culture of the region. Work-based training that allows upward movement on a career ladder provides an incentive for employees to make a long-term commitment to a company or project.

⁷ Alaska Miners Association Workforce Development Committee survey of employers, 2012

Action steps

- Support and disseminate effective orientation programs for new employees
- “Grow your own” by offering internships and career ladders for hard-to-fill positions
- Provide career advancement opportunities and training
- Promote positive work environments
 - Culturally sensitive
 - Flexible work schedules/rotations
 - Create a sense of belonging
 - Community investment
- Improve coordination among industry players to foster cooperation rather than competition
- Identify and disseminate promising practices for engaging and developing local businesses for support functions

Resources

- Models
 - Hourly Tech Progression
 - Red Dog Millwright training in conjunction with Alaska Technical Center
 - Industry best practices

Responsible parties: Industry

Evaluation: Turnover rates especially in hard-to-fill positions are reduced to an acceptable level; effective orientation programs are in place; internal career ladders are developed and implemented.



Collaboration for Sustainability

Strategy 6.0: Promote the involvement and collaboration of industry, training providers and funding agencies in implementing and sustaining the Alaska Mining Workforce Development Plan.

Rationale: Implementing the action steps outlined in this plan is beyond the scope, authority or resources of any one industry player, government agency or educational institution. Building an effective, predominantly Alaskan mining workforce requires the energy and coordinated effort of many actors from both the private and public sectors of the state. Private employers not only in mining but in other natural resource development industries need to provide accurate workforce demand data as well as clear standards, expertise, equipment and material resources for training programs. Government agencies need to contribute fiscal resources and policy direction to support training. Finally, educational agencies at all levels need to offer programs that provide articulated pathways from school to work in the variety of careers available in the industry.

Action steps

- Submit the plan to industry for review and approval
- Present the plan to AWIB
- Continue industry support for the AMA HR committee
- Engage the state education, labor and economic development agencies to coordinate government action needed to implement and sustain workforce development efforts
- Work with UA and other training providers to implement areas within their expertise
- Continue industry liaison with the Alaska Legislature to help secure necessary state funding and policy commitments to workforce development
- Work with the ADOLWD to align employment data on a regional level to more closely meet industry needs

Resources

- AWIB
- State labor, education and resource development agencies
- University of Alaska
- Regional training providers
- Business industry group
- State and federal training program funds

Responsible parties: Industry, UA and other training providers, AWIB, ADOLWD, ADEED, ADCCED, school districts

Evaluation: Evidence that industry, government and educational agencies are involved in plan implementation.



priority occupations: specific strategies

As mentioned above, the Career Pathways steering Group analyzed the 14 priority occupations identified in the needs assessment and decided that grouping the occupations into career clusters was the more viable option for developing pathways. This decision was based in part on the similarity of many of the occupations to those in other industries. This commonality has significant implications for workforce development strategies in that a variety of existing training programs can be utilized with limited additional content or on-the-job training needed to develop a productive mine worker. The following strategies by occupation stress the need for coordination of and cooperation among industries and training partners to best utilize the scarce training resources of the state.

Heavy Equipment Operation

This job cluster includes positions held in both underground and surface mining operations. A typical progression system for an underground miner would be entry level, haul truck driver, mucker operator, bolter operator, to jumbo drill operator. The similar progression system for surface miners would be entry level, haul truck driver, load operator, blaster and shovel operator. Employees can advance in their pay scale and position based on skill, on-the-job training, competency/proficiency and performance.

Training opportunities for heavy equipment operations occupations are available through a variety of in-state training providers, including the University of Alaska campuses and regional training centers.

Heavy Equipment Operations

Underground Miners

Training	UA	Other
Certification	MAPTS, MSHA Simulators, Delta Mine Training Center, UAS	Company OJT

Drillers & Blasters

Training	UA	Other
Certification	MAPTS Coal Blasting	

Haul Truck Drivers

Training	UA	Other
Qualified on Equipment by Company	MAPTS simulators	NIT, Center for Employment Education Driving Courses

Equipment Operators

Training	UA	Other
Qualified on Equipment by Company	MAPTS simulators	Equipment Manufacturers NIT, KCC simulators Operating Engineers

Underground Miner

Job Description: Underground miners oversee the safe operation of underground mining equipment including haul trucks, muckers, mechanized bolters, jackleg drill, forklifts,

shotcrete equipment and tractors. Underground mine service and support workers perform a range of duties related to the operation of ore-passes, chutes and conveyor systems, the construction and support of underground structures, passages and roadways, and the provision of materials and supplies to support underground mining. Underground miners may also serve as drillers and blasters.

Education and training needed: High school diploma or GED; secondary CTE coursework preferred

Occupation-specific action steps

- Encourage career awareness, such as the Mining 101 course offered at UAS and the Natural Resource Development class at King Career Center
- Provide industry standards and support for the training programs delivered by MAPTS, Delta Mine Training Center and UAS, particularly the new and expanded programs under TAACCCT funding
- Encourage delivery of at least a portion of training regionally/locally



Drillers and Blasters

Job Description: Drillers safely operate a variety of both horizontal and vertical drilling equipment for boring holes to extract core samples during mining exploration and to facilitate the use of explosives in mine operations. Blasters place and detonate explosives to loosen, remove or displace earth, rock or other material in the mining process. Blasters may also be responsible for the specialized handling, storage and accounting procedures needed to assure that all safety and national security measures relating to explosives are met.

Education and training needed: High school diploma or GED; apprenticeship preferred; certification of fitness for explosive handlers.

Occupation-specific action steps

- Encourage career awareness, such as the Mining 101 course offered at UAS and the Natural Resource Development class at King Career Center
- Increase apprenticeship opportunities
- Include financial support for apprenticeships in operations budget

Haul Truck Drivers

Job Description: Haul truck drivers operate haulage equipment to transport and dump ore and waste. Haul truck drivers must have the ability to monitor truck operations, recognize, report and avoid hazards, and carry out assignments to achieve safety and production goals.

Education and training needed: High school diploma or GED; Haul Truck Driver Certification preferred.

Occupation-specific action steps

- Support generic curriculum delivered regionally that can be tailored to local circumstances in partnership with the local mine

Equipment Operators

Job Description: Equipment operators drive a wide range of heavy equipment used in the mining process such as tractor-trailer combinations, loaders, graders, excavators, dozers, forklifts, mobile cranes, large capacity shovels and trucks.

Education and training needed: High school diploma or GED; vocational training preferred

Industry-specific action steps

- Support generic curriculum delivered regionally that can be tailored to local circumstances in partnership with the local mine

Maintenance Technicians

This job cluster is responsible for the maintenance of all types of equipment used in the mining process. Millwrights deal with stationary equipment used in the processing plant. Diesel mechanics care for the mobile equipment used at the site. Electrical and instrumentation maintenance technicians maintain the electrical and other equipment associated with the mining process.

Training opportunities for maintenance technicians are available from a variety of in-state training providers, including the University of Alaska campuses and regional training centers.

Maintenance Technicians

Millwright (stationary equipment/ mechanical maintenance)		
Training	UA	Other
Certification AAS	PWSCC NCCER UAS Mechanical Maintenance OE	ATC (Red Dog)
Diesel Mechanic (mobile equipment)		
Training	UA	Other
Certification	UAF/UAA/ UAS	AVTEC, Equipment Vendors
Electrical (and Instrumentation) maintenance techs		
Training	UA	Other
Certification or AAS	UAA(KPC), UAF	AVTEC, Job Corps

Millwright

Job Description: Millwright mechanics maintain and repair stationary equipment located in a mine processing plant. Duties include trouble shooting, diagnosing, modifying, fabricating and repairing crusher equipment such as cone crushers, gyratory crushers, conveyors, feeders, ball mills, pumps and piping systems.

Education and training needed: High school diploma or GED; apprenticeship or technical training

Industry-specific action steps

- Increase internship opportunities and internal career ladders
- Include financial support for apprenticeships in operations budget
- Align millwright training programs across UA campuses and regional training centers
- Support an Occupational Endorsement in mechanical maintenance that can be delivered regionally, tailored to the local mining operations equipment and processes

Diesel Mechanic

Job Description: Heavy-duty equipment mechanics repair, troubleshoot, adjust, overhaul and maintain mobile heavy-duty equipment used in either underground or surface mining. Equipment includes electric shovels, haul trucks, drills, bolters, graders, dozers, tractors and light vehicles.

Education and training needed: High school diploma or GED; technical college or trade school diploma

Industry-specific action steps

- Align diesel mechanic training programs across the state
- Encourage delivery of training regionally
- Address the capital-intensive nature of the training by providing equipment for training locally
- Provide apprenticeships for specific equipment
- Include financial support for apprenticeships in operations budget

Electrical and Instrumentation

Job description: Electrical and instrumentation technicians troubleshoot, maintain and repair electrical and associated equipment in a safe, environmentally responsible and timely manner. These technicians install or service lights, communications systems or a variety of electrical control systems within a mine.

Education and training needed: High school diploma or GED; apprenticeship and/or vocational certification

Industry-specific action steps

- Assist training providers to develop a generic program utilizing the national curriculum based on industry standards for electrical maintenance, followed by apprenticeship within the industry
- Include financial support for apprenticeships in operations budget



Process Technology

Process technology refers to the use and control of mechanical, physical, or chemical processes to produce a final product. In Alaska, this includes the process industries of oil and gas production; mining; power generation and utilities; water and wastewater treatment; and seafood and other food processing

The primary training program for process technology workers is the process technology certificate and associate degree offered by the UA system. However, with the new funding from TAACCCT, UAF will develop a mill operator certificate specific to mining.

Process Technology

Mill operators		
Training	UA	Other
Certification AAS	MAPTS UAA/ program UAF, UAA, KPC (Process Tech)	ATC, Yukon & BC Programs Company OJT

Mill Operator

Job description: Mill operators are responsible for operating all areas of the mill with minimum supervision to ensure maximum throughput and recovery while maintaining the lowest practical level of consumable material usage. Mill Operators work with gyratory, standard and short-head crushers, feeders, pumps, screening plants and conveyors as well as dust control systems. They also operate dozers and related heavy equipment.

Education and training needed: High school diploma or GED; experience or training in flotation and mineral processing



Occupation-specific action steps

- Align Mill Operator programs across campuses and training centers
- Assist the University of Alaska in developing and delivering the new Mill Process Operator Occupational Endorsement
- Support regional delivery of training tailored to the needs of local mining operations

STEM/Engineering

STEM occupations require a strong background in science, technology, engineer or math. Engineering refers to those occupations that apply scientific and mathematical principles to practical ends such as the design, manufacture, and operation of efficient and economical structures, machines, processes, and systems. Several types of engineers are involved in mining operations: mining, mechanical, geological, electrical, metallurgical, chemical, environmental and civil.

STEM/Engineering

Mining Engineers	
Training	UA
BS	UAF
Mechanical Engineers	
Training	UA
BS	UAF, UAA (ANSEP)
Geologists / Geomatics	
Training	UA
BS / MS / PHD	UAF, UAA
Metallurgists	
Training	UA
MS	UAF Mineral Preparation Engineering degree
Laboratory Technologists: Metallurgy, Chemical, Geo, Environmental	
Training	UA
AAS, BS	UAF, UAA, UAS science courses

Mining Engineer

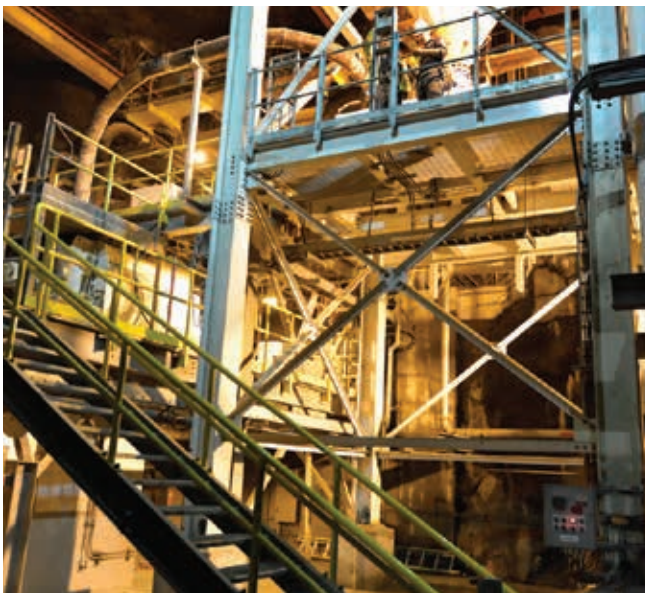
Job Description: Mining engineers help plan, design and build new mines. They also manage and control the activities of existing mines. Engineers are responsible for designing, implementing and coordinating all aspects of mine development and safety.

Education and training needed: High school diploma or GED; bachelor degree in mining engineering

Industry-specific action steps

- Work with UAA to add a mining track to ANSEP and Rural Alaska Honors Institute (RAHI) summer institutes
- Continue to support the mining engineering program at UAF by assisting with program review and revision and developing internships
- Assist regional mining engineering students with scholarships
- Include support for internships in annual operating budgets

Mechanical Engineer



Job Description: Mechanical engineering is the branch of engineering that involves the design, production, and operation of machinery and tools. Mechanical engineers design, develop, build, and test mechanical and thermal devices, including tools, engines, and machines. Mechanical engineers apply the principles of engineering, physics and materials science for the design, analysis, manufacturing, and maintenance of mechanical systems.

Education and training needed: High school diploma or GED; bachelor degree in mechanical engineering

Industry-specific action steps

- Support mechanical engineering and other specialized degree programs offered by the UA system
- Assist regional engineering students with scholarships and internships
- Include support for internships in annual operating budgets
- Add mining content to curriculum where appropriate

Alaska Miners Association Human Resources Committee

Geologist

Job Description: Geologists/geological engineers play a part in all aspects of mining exploration, discovery, evaluation and production cycles. During exploration, geologists are responsible for finding new material sources that will become the mines of the future. On the mine site, the geologist is responsible for daily control over the mining activities, assuring that the miners are in the right places, that good sampling is carried out and that the mine is on the right track.

Education and training needed: High school diploma or GED; bachelor degree in geologic engineering or geology

Occupation-specific action steps

- Support geology/geologist engineering degree programs offered by the UA system
- Assist regional geology students with scholarships and internships
- Include support for internships in annual operating budgets

Metallurgist

Job Description: Metallurgists extract and refine valuable materials from raw ore using sophisticated processes and new technologies. They also work to protect and restore the environment and monitor processing in the mill to maintain or increase production. They are responsible for mill metallurgical accounting practices and the review of daily, monthly and annual metallurgical reports.



Education and training needed: High school diploma or GED; bachelor degree in metallurgy

Occupation-specific action steps

- Support graduate level Mineral Preparation Engineering degree program offered by the UA system
- Assist regional mineral preparation/metallurgy students with scholarships and internships
- Include support for internships in annual operating budgets

Metallurgy, Chemical, Geological and Environmental Laboratory Technicians

Job Description: Lab technicians are needed for assessment of samples in several areas of a mining operation: geological, environmental and chemical. Preparation of samples for assays or for determination of compliance involves use of chemical processes, laboratory equipment and analyzers and data information systems. Report writing, data tracking and laboratory safety are key to this job. Lab assistants work under the supervision of a trained metallurgist, chemist or geologist

Education and training needed: High school diploma or GED; secondary CTE coursework preferred

Occupation-specific action steps

- Encourage career awareness of technician-level positions based on the career pathway developed for STEM/Engineering careers in mining
- Develop in-house on-the-job training for lab technicians, with opportunities for progression in responsibility and wages

Other Occupations

Two other priority occupation were identified in the needs assessment that may require industry attention: Health and Safety Specialist and Permitting Specialist. Training for both occupations is available in-state through the University of Alaska system.

Other Occupations

Health & Safety Specialists (Mine safety & emergency response)		
Training	UA	Other
Certification, AAS	UAA, Kodiak, KPC UAF CTC	None that are MSHA based
Permitting specialists		
Training	UA	Other
AAS, BS Environmental Science programs	UA, UAF, UAS	

Health and Safety Specialist

Job Description: Health and Safety specialists are responsible for developing, implementing and monitoring health and safety guidelines. They work to ensure that all employees know, understand and follow all safety and health procedures. They provide emergency response training including mine rescue, first aid, and firefighting. They provide training on such topics as fall arrest,

space entry, industrial hygiene, and safety monitoring equipment. Specialist also perform inspections and audits and provide documentation for compliance.

Education and training needed: High school diploma or GED; bachelor degree preferred

Occupation-specific action steps

- Provide career awareness of jobs in the health and safety area as part of regional outreach during development and operational phases of a mine
- Assist UA to incorporate MSHA training into Health and Safety certificates and degrees

Permitting Specialist

Job Description: A Permitting Specialist is responsible for the successful and timely attainment of permits from state and federal land management agencies for various phases of mining projects.

Education and training needed: High school diploma or GED; bachelor degree in Environmental Science or a related field

Occupation-specific action steps

- Provide career awareness of jobs in permitting as part of regional outreach during exploration and development phases of a mine
- Support regional environmental science students with scholarships and internships
- Encourage UA environmental science programs to include information about mining career opportunities into certificates and degrees



Appendices

Appendix A: Acronyms

AKCIS	Alaska Career Information System	KCC	King Career Center
ADCCED	Alaska Department of Commerce, Community and Economic Development	KPC	Kenai Peninsula College
ADEED	Alaska Department of Education and Early Development	MAPTS	Mining and Petroleum Training Service
ADOLWD	Alaska Department of Labor and Workforce Development	MSHA	Mine Safety and health Administration
ALEXsys	Alaska Labor Exchange System	NCCER	National Center for Construction Education and Research
AMA	Alaska Miners Association	NIT	Northern Industrial Training
AMA-HR	Alaska Miners Association Human Resources Committee	NSTC	North Slope Training Cooperative
ANCSA	Alaska Native Claims Settlement Act	RAHI	Rural Alaska Honors Institute
ANSEP	Alaska Native Science and Engineering Program (ANSEP)	STEM	Science, Technology, Engineering and Math
APICC	Alaska Process Industry Careers Consortium	STEP	State Training and Employment Program
ARE	Alaska Resource Education	TAACCCT	Trade Adjustment Assistance Community College and Career Training
ATC	Alaska Technical Center	TVEP	Technical Vocational Education Program (state funds)
AVTEC	Alaska Vocational Technical Center	UA	University of Alaska
AWIB	Alaska Workforce Investment Board	UAA	University of Alaska Anchorage
BC AMTA	British Columbia Aboriginal Mine Training Association	UAF	University of Alaska Fairbanks
CAMI	Consolidated Alaska Mining Initiative	UAS	University of Alaska Southeast
CAP	Council of Alaska Producers	WIA	Workforce Investment Act
		YUUT	Yuut eliitnaurviat



Appendices

Appendix B: Training Providers

Alaska Career College

1415 East Tudor Road
Anchorage, AK 99507-1033
Telephone: 907-563-7575 (main) or 800-770-7575
Fax: 907-563-8330
Email: careers@alaskacareercollege.edu
www.alaskacareercollege.edu

Alaska Construction Academies

8005 Schoon Street
Anchorage, AK 99518
Telephone: 907-770-1826
Fax: 907-562-6118
Email: info@alaksaca.org
www.alaskaca.org
Academies are located throughout the state. Check website for more information.

Alaska Job Corps Center – Palmer

Admissions Office
4300 B Street, Suite 100
Anchorage, AK 99503
Telephone: 907-861-8800 or 800-733-5627
Email: admissions@alaskajobcorps.com
www.alaskajobcorps.com

Alaska Process Industry Careers Consortium (APICC)

2600 Cordova, Suite 105
Anchorage AK 99503
Telephone: 907-770-5250
Fax: 907-770-5251
<http://www.apicc.org>

Alaska Technical Center

Box 51
Kotzebue, AK 99752
Telephone: 907-442-3733 (main) or 800-478-3733
Fax: 907-442-2764
www.nwarctic.org/atc

Alaska Vocational Technical Center (AVTEC)

PO Box 889
Seward, AK 99664
Telephone: 907-224-3322 (admissions) or 800-478-5389
Fax: 907-224-4400
Email: admissions@avtec.edu
<http://avtec.labor.state.ak.us>

Alaska Works Partnership Inc.

Anchorage Office

1413 Hyder Street
Anchorage, AK 99501
Telephone: 907-569-4711 or 1-866-297-9566
Fax: 907-569-4716
www.akwp.org

Fairbanks Office

P.O. Box 74313
3600 Cartwright Court
Fairbanks, AK 99707
Telephone: 907-457-2597
Fax: 907-457-2591

Other Programs Offered Under AKWP

Helmets to Hardhats Program

Telephone: 907-790-8883 or 866-993-8181

Pipeline Training Program

Telephone: 907-457-2597

Center for Employment Education

520 East 34th Avenue, Suite 201

Anchorage, AK 99503

Telephone: 907-279-8451

Fax: 907-279-6088

Email: cee@acsalaska.net

www.cee-ak.com

Delta Career Advancement Center Partners for Progress in Delta, Inc.

PO Box 956

Delta Junction, AK 99737

Telephone: 907-895-4605

Fax: 907-895-4629

Email: sce@wildak.net

www.partnersforprogressindelta.org

Environmental Management Incorporated

206 East Fireweed Lane, Suite 201

Anchorage, AK 99503

Telephone: 907-272-8852 or 800-458-2580

Fax: 907-272-0319

Email: training@emi-alaska.com

www.emi-alaska.com

New Frontier Vocational Technical Center

43335 K-Beach Road, Suite 14

Soldotna, AK 99669

Telephone: 907-262-9055

Fax: 907-262-7144

Email: nfvtc@aecak.org

www.nfvtc.org

Northern Industrial Training

1740 North Terrilou Court

Palmer, AK 99645

Telephone: 907-357-6400 or 888-367-6482

Fax: 907-357-6430

Email: info@nitalaska.com

www.nitalaska.com/nit

Northwest Technical Services

4401 Business Park, Building N, Suite 26

Anchorage, AK 99503

Telephone: 907-562-1633

Fax: 907-562-5875

Email: nwtstraining@ak.net

www.nwts-ak.com

Southeast Alaska Regional Resource Center and The Learning Connection

210 Ferry Way

Juneau, AK 99801

Telephone: 907-586-6806

Fax: 907-463-3811

Email: info@serrc.org

www.serrc.org

Yuut Elitnaurviat – People’s Learning Center

610 Akiachak Street

PO Box 869

Bethel, AK 99559

Telephone: 907-543-0999

Fax: 907-543-0998

Email: josborne@yuut.org

www.yuut.org

Colleges and Universities

Alaska Pacific University

4101 University Drive
Anchorage, AK 99508
Telephone: 907-564-8248 or 800-252-7528
Fax: 907-564-8317
Email: admissions@alaskapacific.edu
www.alaskapacific.edu

Charter College

2221 E. Northern Lights Boulevard, Suite 120
Anchorage, AK 99508
Telephone: 907-277-1000
Fax: 855-399-0330
contact@chartercollege.edu
www.chartercollege.edu

University of Alaska

University of Alaska, Anchorage

3211 Providence Drive
Anchorage, AK 99508
Telephone: 907-786-1800
Fax: 907-786-4888
Email: enroll@uaa.alaska.edu
www.uaa.alaska.edu

University of Alaska Fairbanks

PO Box 757500
505 South Chandalar Drive
Fairbanks, AK 99775
Telephone: 907-474-7211
Fax: 907-474-5379
Email: admissions@uaf.edu
www.uaf.edu

University of Alaska Southeast - Juneau

11120 Glacier Highway
Juneau, AK 99801
Telephone: 907-796-6000 or 877-465-4827
Telephone: 907-796-6000
Fax: 907-796-6365
Email: uas.info@uas.alaska.edu
www.uas.alaska.edu

Wayland Baptist University

Anchorage Campus
7801 East 32nd Avenue
Anchorage, AK 99504
Telephone: 907-333-2277
Fax: 907-337-8122
Email: alaska@wbu.edu
www.wbu.edu/colleges-in-anchorage

Wayland Baptist University - Fairbanks Campus

2623 Wabash Avenue., Suite 109
Eielson AFB, AK 99702-1715
Telephone: 800-588-1928
806-291-1000 – Wayland
806-291-3500 – Admissions
Email: admyou@wbu.edu

Two-Year Colleges and University Programs

University of Alaska

Bristol Bay Campus/UAF

Main Dillingham Campus
527 Seward Street
P. O. Box 1070
Dillingham, AK 99576
907-842-5109
907-842-5692 fax
Email: bbcinfo@uaf.edu
www.uaf.edu/bbc

Chukchi Campus/UAF

604 3rd Avenue
 PO Box 297
 Kotzebue, AK 99752
 Telephone: 1-800-478-3402
 Fax: 907-442-2322
 Email: admissions@uaf.edu
www.uaf.edu/chukchi

Interior-Aleutians Campus/UAF

4280 Geist Road
 PO Box 756720
 Fairbanks, AK 99775-6720
 Telephone: 907-474-5439 (main) or 888-474-5207
 Fax: 907-474-5208
 Email: uaf-iacinfo@alaska.edu
www.uaf.edu/iac

Kachemak Bay Campus, Kenai Peninsula College/UAA

533 East Pioneer Avenue
 Homer, AK 99603
 Telephone: 907-235-7743 or 877-262-0330
 Email: iykbc1@kpc.alaska.edu
www.kpc.alaska.edu

Ketchikan Campus/UAS

2600 7th Avenue
 Ketchikan, AK 99901-5798
 Telephone: 907-228-4508 (main) or 888-550-6177
 Fax: 907-225-3624
 Email: ketch.info@uas.alaska.edu
www.ketch.alaska.edu

Kodiak College/UAA

117 Benny Benson Drive
 Kodiak, AK 99615
 Telephone: 907-486-4161 (main) or 800-486-7660
 Fax: 907-486-1264
www.koc.alaska.edu

Kuskokwim Campus/UAF

201 Akiak Drive
 PO Box 368
 Bethel, AK 99559
 Telephone: 907-543-4500 (main) or 800-478-5822
 Fax: 907-543-4527
www.bethel.uaf.edu

Matanuska-Susitna College/UAA

8295 East College Drive
 PO Box 2889
 Palmer, AK 99645
 Telephone: 907-745-9774 (main) or 907-745-9746 (admissions)
 Fax: 907-745-9711
 Email: info@matsu.alaska.edu
www.matsu.alaska.edu

Mining and Petroleum Training Service (MAPTS – UAA)

162 College Road, MAPTS Bldg
 Soldotna, AK 99669
 Telephone: 907-262-2788 Soldotna
 Fax: 907-262-2812 - Soldotna
 Telephone: 907-786-6413 Anchorage
 Fax: 907-786-6414 – Anchorage
 Email: mapts@alaska.net
www.alaska.net/~mapts

MAPTS Classes are given at the following locations:**Kenai/Soldotna**

Kenai River Campus - 162 College Road

Anchorage

University Center - 3901 Old Seward Highway

Juneau

UAS Tech Center - 1415 Harbor Highway

Nome

110 Front Street - Old Federal Building, Suite 112

Fairbanks

DEC Classes at Pioneer Park, Blue Room

MSHA Classes at UAF CTC Building:

604 Barnette - Room 303
 Northwest Campus/UAF
 400 East Front Street
 PO Box 400
 Nome, AK 99762
 Telephone: 907-443-2201 (main) or 800-478-2202
 Fax: 907-443-5602
 Email: nwc.info@alaska.edu
www.nwc.uaf.edu

Sitka Campus/UAS

1332 Seward Avenue
 Sitka, AK 99835
 Telephone: 907-747-7700 (main) or 800-478-6653
 Fax: 907-747-7768
 Email: student.info@uas.alaska.edu
www.uas.alaska.edu/sitka

UAF Community and Technical College

604 Barnette Street
 Fairbanks, AK 99701
 Telephone: 907-455-2800
 Fax: 907-455-2828
www.tvc.uaf.edu

Ilisagvik College

100 Stevenson Street
 PO Box 749
 Barrow, AK 99723
 Telephone: 907-852-3333 or 800-478-7337
 Fax: 907.852.2729
www.ilisagvik.cc

Prince William Sound Community College

303 Lowe Street
 PO Box 97
 Valdez, AK 99686
 Telephone: 907-834-1600 (main) or 800-478-8800
 Fax: 907-834-1691
 Email: StudentServices@pwsc.edu
www.pwsc.edu

Apprenticeship Programs in Alaska**Alaska Joint Electrical Apprenticeship & Training Trust**

5800 B. Street
 Anchorage, AK 99518
 Telephone: 907-337-9508
 Fax: 907-337-9500
 Email: office@ajeatt.org
www.ajeatt.org

Kornfeind Training Center

4782 Dale Road
 PO Box 60134
 Fairbanks, AK 99709
 Telephone: 907-479-4449 or 800-479-4495
 Fax: 907-479-0425

Alaska Operating Engineers Apprenticeship Training

5400 Cunningham Road
 PO Box 0989
 Palmer, AK 99645
 Telephone: 907-746-3117
 Fax: 907-745-6136
 Email: training@aoeett.org
www.aoeett.org

Fairbanks Office

3002 Lathrop Street
 Fairbanks, AK 99701
 Telephone - 907-456-5421
 Fax: 907-451-6098

Juneau Office

9309 Glacier Hwy, Building A, Suite 102B
 Juneau, AK 99801
 Telephone: 800-478-9551 (toll free)
 Fax 907-463-5464

Alaska Teamster Employer Service Training Trust

520 East 34th Avenue, Suite 201
Anchorage, AK 99503
Telephone: 907-278-3674 (Apprenticeship Info)
Email: atestt@acsalaska.net
www.akteamsterstraining.com

Anchorage Plumbers and Steamfitters Local 367

Joint Apprenticeship Training Committee
610 West 54th Avenue
Anchorage, AK 99518-1197
Telephone: 907-562-2810
Fax: 907-562-2587
Email: billings@ualocal367.org
www.ualocal367.org

Associated Builders and Contractors, Inc.

1900 West Benson Boulevard, Suite 201
Anchorage, AK 99517
Telephone: 907-565-5600
Fax: 907-565-5645
Email: info@abcalaska.org
www.abcalaska.org

Carpenters Local 2247

Joint Apprenticeship Training Committee
1721 Anka Street
Juneau, AK 99801
Telephone: 907-586-3675
Fax: 907-586-3675
www.ubcalaska.org/2247_Southeast_Ak.html

Fairbanks Plumbers & Steamfitters Local 375

Apprenticeship Training Committee
1978 Burgess Avenue
Fairbanks, AK 99709
Telephone: 907-456-5989
Fax: 907-456-5905
Email: jatc@ualocal375.org
www.ualocal375.org

Alaska Miners Association Human Resources Committee

Fairbanks Sheet Metal Workers

International Association, Local 23
1260 Aurora Drive
Fairbanks, AK 99709
Contact: Apprenticeship Coordinator
Telephone: 907-452-3864
Fax: 907-456-3413
<http://local23jatc.org>

International Association of Heat & Frost Insulators, Asbestos Workers

Union Local 97
407 Denali Street, Room 303
Anchorage, AK 99501
Telephone: 272-8224
Fax: 277-8860

International Brotherhood of Electrical Workers (IBEW)

Local 1547 - Juneau
Apprenticeship Training Committee
813 West 12th Street
Juneau, AK 99801
Telephone: 907-586-3050
Fax: 907-586-9614
Email: vvanfleet@ibew1547.org
www.ibew1547.org

International Brotherhood of Electrical Workers (IBEW)

Local 1547 - Ketchikan
317 Stedman Avenue
Ketchikan, AK 99901
Telephone: 907-225-4020
Fax: 907-225-3924
www.ibew1547.org

Ironworkers Local 541

8141 Schoon Street
 Anchorage, AK 99518-3047
 Contact: Apprenticeship Coordinator
 Telephone: 907-563-4767
 Fax: 907-563-2855

Juneau Plumbers and Pipefitters Local 262

1751 Anka Street
 Juneau, AK 99801
 Telephone: 907-586-2874
 Fax: 907-463-5116
www.aatca.org/Plumbers_Juneau.html

Laborers' International Union

Alaska Laborers Apprenticeship Training School
 13500 Old Seward Highway
 Anchorage, AK 99515
 Telephone: 907-345-3853
 Fax: 907-345-4479

Laborers' Local 942 -Fairbanks

Alaska Laborers' Training School
 2740 Davis Road
 Fairbanks, AK 99709
 Telephone: 907-452-3146
 Fax: 907-452-6285

Laborers' Local 942 -Juneau

Alaska Laborers' Training School
 722 West 9th Street
 Juneau, AK 99801
 Telephone: 907-586-2860
 Fax: 907-586-5757

Marine Exchange of Alaska Maritime

Pride and Education Program
 1000 Harbor Way Suite 204
 Juneau, AK 99801
 Telephone: 907-463 2607
 Fax: 907-463-3654
 Email: training@mxak.org
www.mxak.org

Northern Alaska Carpenters Local 1243

Fairbanks Carpenters Training Center
 6 Timberland Drive
 Fairbanks, AK 99701
 Telephone: 907-452-4626
 Fax: 907-456-5542

Painters and Allied Trades

Alaska Apprenticeship Training Coordinators Association
 501 Raspberry Road, Suite 2
 Anchorage, AK 99518
 Telephone: 907-562-8843
 Fax: 907-563-8843
 Email: dhansen@local1959.org
www.aatca.org

Drivers Union Local 2520

Apprenticeship Training Program
 825 East 8th Avenue
 Anchorage, AK 99501
 Contact: Apprenticeship Coordinator
 Telephone: 907-272-7576
 Fax: 907-277-8967
www.local2520.org

Plasterers' and Cement Masons

Apprenticeship Coordinator
 7851 Spring Street Suite #1
 Anchorage AK, 99518
 Telephone: 907-223-0838
 Fax: 907-272-4378

Roofers and Waterproofers Local 190

Joint Apprenticeship Training Committee
Apprenticeship Coordinator
825 East 8th Avenue, Suite 10
Anchorage, AK 99501
Telephone: 907-272-4311
Fax: 907-277-4311
Email: local190union@alaska.net
www.aatca.org/roofer.html

Seafarers International Union

721 Sesame Street, Suite 1C
Anchorage, AK 99503
Telephone: 907-561-4988
Fax: 907-563-0122

Sheet Metal Workers International Association, Local 23

Joint Apprenticeship Training Committee
1307 East 75th Avenue #4
Anchorage, AK 99518
Contact: Apprenticeship Coordinator
Telephone: 907-277-5367
Fax: 907-274-8219
<http://local23jatc.org>

Southern Alaska Carpenters – Local's 1281, 2247, & 1501

Joint Apprenticeship Training Committee
8751 King Street
Anchorage, AK 99502
Contact: Apprenticeship Coordinator
Telephone: 907-344-1541 or 1-888-825-1541
Fax: 907-349-5823
www.sactcaprentice.org

Alaska Teamster-Employer Service Training Trust

520 E. 34th Avenue, Suite 201
Anchorage, AK 99503
Telephone: 907-278-3674
Fax: 907-279-6088
Email: c.lipps@acsalaska.net
www.akteamsterstraining.com

U.S. Department of Labor

Bureau of Apprenticeship Training
605 West 4th Avenue
Room G-30
Anchorage, AK 99501
Telephone: 907-271-5035

To learn more about specific apprenticeship opportunities, please consult the U.S. Department of Labor State Apprenticeship Information website at:

<http://www.ajcn.state.ak.us/apprentice>

Appendices

Appendix C: Best Practices

In preparing this workforce development plan, the Alaska Miners Association Human Resources Committee solicited information from mine operators and others about best practices in the strategic areas identified in the plan. The following list describes models and practices that can assist stakeholders in implementing the plan at their own site or agency. Many of these materials and activities were identified through a survey of operating mines and projects conducted by AMA HR in 2013. Additional information on models was obtained from case studies from mining operations in Canada and other countries.

Career Awareness

Career awareness includes both materials and activities.

Materials

- Alaska Resource Education Career Cards provide a good explanation of careers available in Alaska's natural resource industries. The minerals card set focuses in jobs in the mining industry.
- Both Donlin Gold and the Pebble Partnership have developed documents describing the careers available in their projects. While directed at the individual projects, the information contained is suitable for a broad audience, including adult workers.

Activities

In a survey of operators and projects, the following activities were identified as most effective in creating career awareness

- K-12 students:
 - Attendance at local and state job and college fairs
 - School classroom visits
 - Collaboration with Alaska Resource Education in-school activities
 - Youth camps at mine sites
 - Sponsoring a teacher in the Teacher Industry Externship (TIE) program operated by APICC
- Adults
 - Jobs brochures

- Posting jobs at local sites (grocery store, post office, etc.)
- Websites such as AMA and Infomine.com
- Posting jobs in ADOLWD ALEXsys system
- Recruitment tables at village presentations

Skills Canada Territorial Skills Competition focuses on trades and technology careers and provides an opportunity for students to showcase their skills. The competition includes a career exposition that includes employers and exhibitors.

Engage

Many mining companies use the following activities to engage local and regional residents in workforce development.

- Direct discussion with village leaders
- Open houses at mines for residents of surrounding communities
- Village presentations
- Local hire coordinators

The committee also identified several other engagement activities that are used in Canada and Western Australia that may have applicability to Alaska projects.

- Socio-Economic Agreements, which seek to maximize the economic benefits related to the mining project for the local and regional residents while minimizing the negative social impacts. These agreements typically include attention to
 - employment and training
 - social impacts
 - business development
 - monitoring of the agreement
- Impact and Benefits Agreements
 - These private agreements are made between mining companies, governments and indigenous populations to enhance the socio-economic benefits of specific populations. They generally cover the same areas as the less-formal socio-economic agreements.

Career Pathways

- Best practices for Career Pathways are being collected by the Career Pathways planning group. The models will be disseminated across the state and will be housed in a resource depository.

Training

The following are some examples of best practices in training.

- The University of Alaska and Yukon College partnership which utilizes curriculum developed by UA's MAPTS program and Yukon College to train students at the Delta Mine Training Center. Yukon College has supplied several large simulators which will remain at the Center. The agreement assists UA in leasing the Center facilities, making them available for other training programs.
- The North Slope Training Cooperative was created in 1998 to develop and maintain high quality, standardized health, safety, and environmental training programs for operating company and contractor employees at industrial sites on the North Slope and throughout Alaska. The NSTC is a collaborative effort funded by industry and managed by APICCC.
- Alaska Technical Center in Kotzebue offers Millwright classes in conjunction with Teck Alaska/Red Dog Mine. The mine provides the faculty to deliver on-site training to ATC students.
- The British Columbia Aboriginal Mine Training Association (BC AMTA) is one of several Aboriginal Skills Employment Programs operating in various industries throughout Canada. BC AMTA comprises a number of partners—industry, mining associations, First Nations' Bands & Councils, government programs and educational institutions—who have all committed shared costs in the implementation of the program. Some partners have furthered their involvement by making employment commitments.
- Ready to Work North is a program delivered by Aurora College in Yellowknife, NWT. The program focuses on the basic skills needed to succeed in the workplace. The course is offered as part of more specific training courses, but can also be delivered as a stand-alone two-week course in local communities.

Employee Development

Many mining companies utilize Technical Progression programs to advance employees. These programs award workers for the acquisition and application of skills learned on the job. Typically, such programs have various levels (for example, Technician 1 through 5), with the top level often tied to obtaining externally-awarded certificates or licenses. Progression programs include mandated evaluations at periodic intervals. Such systems encourage shared responsibility for training between the employer and the individual employee. They offer financial incentives to learn new skills and help promote cross-functionality.

In addition to offering competitive salary and benefit packages, some companies offer amenities such as fitness centers and wellness programs to enhance employee satisfaction and reduce attrition.

Collaboration for Sustainability

APPIC has developed a proven model for implementing and sustaining workforce development in the process industries. The approach, which could also serve the mining industry, includes

- Organizing partners into a consortium
- Establishing a structure to carry out workforce development strategies
- Working Board with an Executive Committee
- Working committees
- Plan to incorporate integrated work of the committees
- Securing necessary human and financial resources to carry out the plan

APPIC outcomes include

- A strong and consistent curriculum for preparing operations workforce
- On-going partnership between industry and education
- Commitment to career education in K-12
- On-going assessment of industry needs

Acknowledgments

The Alaska Mining Workforce Development Plan was guided by the Human Resources Committee of the Alaska Miners Association, with contributions from operating mines and projects. Funding for the planning process was provided by the Pebble Partnership.

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Alicia Amberg, Deputy Director of AMA

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Photos for this publication were contributed by Alaska's operating mines and projects





THE ALASKA WORKFORCE INVESTMENT BOARD BYLAWS

February 2009

Amended March 2016

Pursuant to Alaska Statute Section 23.15.550 and USC 2801—2945 **3101-3361** (~~Workforce Investment Act of 1998~~ **Workforce Innovation and Opportunities Act of 2014**), a state ~~human resource~~ **workforce** investment board has been established, hereby known as the Alaska Workforce Investment Board.

ARTICLE I NAME AND ADMINISTRATIVE SUPPORT

Section 1. The name of this organization is the Alaska Workforce Investment Board (AWIB). For purposes of these bylaws, the AWIB shall be referred to as the Board.

Section 2. The Department of Labor & Workforce Development shall provide administrative support to the Board. All correspondence for the Board may be addressed in care of:

Alaska Workforce Investment Board
Department of Labor and Workforce Development
1016 West 6th Avenue, Suite **105 401**
Anchorage, AK 99501

ARTICLE II PURPOSE AND MISSION

The Alaska Workforce Investment Board's purpose is to develop and implement an efficient, effective and integrated state ~~human resource~~ **workforce** investment system. The comprehensive system will provide employment education and training programs, and services to insure that all Alaskans have the skills and opportunities necessary to earn a living wage. A skilled workforce will be critical in meeting future business needs of the state, and will encourage growth of business and industry. The Board advises the Governor of ~~human investment~~ **workforce investment** needs and recommends ways to meet those needs, while maximizing federal funds and avoiding duplication of effort.

ARTICLE III POWERS, FUNCTIONS AND OVERSIGHT RESPONSIBILITIES

Section 1. The Board acts in an advisory capacity to the Governor of the State of Alaska and to the programs and departments administering programs under the Board's oversight. Oversight is defined within the scope of activities and programs, included in Sections 2 and 3 below.

Section 2. The Board shall:

- (a) Create a statewide **strategic** plan for the coordination, delivery, monitoring and evaluation of all **human resource workforce investment** programs under Board oversight. **Such plan will be submitted to the Governor biannually. Such plan will be submitted to the United States Department of Labor and Workforce Development Employment Training Administration and the Governor.** The plan shall include:
 - (1) the Board's goals, objectives, and performance measures;
 - (2) coordination criteria for linkages among employment, training and education agencies;
 - (3) performance standards and determination of variations of standards for the **local state Workforce Investment Board (LWIBs)** under the Act;
- ~~(b) recommend local Workforce Investment Areas to the Governor;~~
- ~~(c) provide policy guidance, review and recommend improvements for the effectiveness of programs administered by the LWIBs;~~
- ~~(b) plan resource allocations not subject to federal or state formula;~~
- ~~(e) advise the Governor on LWIB job training plans and certify the consistency of such plans with criteria established under state workforce investment plan and the biennial AWIB Strategic Plan;~~
- ~~(f) review and comment on all state plans related to employment, employment education, training, and related services with comments provided to the Governor, relevant state and/or federal agencies, and upon request by the Legislature and the public;~~
- ~~(g) make an annual report to the Governor as well as other reports and studies recommended by the Board; **Not required in statute**~~
- (c) in coordination with the appropriate state agencies, identify the employment and training and **vocational career and technical education** needs throughout the state and assess the extent to which employment and training, **vocational education career and technical education**, rehabilitation services, public assistance, economic development and other federal, state and local programs and services represent a consistent, integrated and coordinated approach to meeting these needs;**
- (d) execute those duties required by the **Workforce Investment Act of 1998 Workforce Innovation and Opportunities Act of 2014;****
- (e) apply for, receive, and distribute grants to further the mission, goals, strategies and objectives of the Board.**

Section 3. The Board shall act as the lead state planning and coordinating entity for state **human resource workforce investment** programs including but not limited to:

- (1) 29 U.S.C. ~~2801-2945~~ **3101-3361** (~~Workforce Investment Act of 1998~~ **Workforce Innovation and Opportunities Act of 2014**);
- (2) 29 U.S.C. 2301 - 2471, Carl D. Perkins Vocational and Applied Technology Education Act;
- (3) 20 U.S.C. 1201 - 1213d Adult Education Act;
- (4) 29 U.S.C. 49 - 491-1 Wagner Peyser Act;
- (5) federal law for work programs for needy families with children under the social security act;
- (6) the employment program established under 7 U.S.C. 2015(d)(4) (7), Food Stamp Act of 1977
- (7) all federal programs designated as successors to the programs listed in (1) - (6) of this section; and
- (8) all state laws involving employment training, **vocational career and technical education**, workforce development, and (Sec. 5 ch 61 SLA 1995), which include the State Training and Employment Program.

ARTICLE IV MEMBERSHIP

The Board consists of the following voting members not to exceed 26 as mandated in the legislation, which established the Board (**Sec. AS 44.19.620**):

- (1) the lieutenant governor, or designee;
- (2) the commissioners of Community & Economic Development, Education & Early Development, Health & Social Services, and Labor & Workforce Development, or a designee for each commissioner;
- (3) one representative from the University of Alaska;
- (4) four additional representatives of education - one from local public education, one from secondary vocational education, one from a postsecondary vocational education institution, and one from adult basic education;
- (5) four representatives of business and industry; **with at least one representative from the private industry councils appointed under 29 U.S.C. 1512 and subject to reconstitution under 29 U.S.C. 1515;**
- (6) four representatives of organized labor that the Governor shall appoint from lists of nominees submitted by recognized state labor organizations;
- (7) at least one representative from an organization representing employment and training needs of Alaska Natives;
- (8) at least one representative of a community-based service organization;
- (9) at least one representative who has personal or professional experience with developmental disabilities;
- (10) at least one veteran**
- (11) at least one and up to four additional members of the private sector to

ensure a private sector majority and regional and local representation on the Board.

(12) Additional non-voting members may be appointed to the Board from government or non-government entities.

ARTICLE V APPOINTMENTS & TERMS

Section 1. Members of the Board other than the lieutenant governor and commissioners or their designees are appointed by the Governor and serve at the pleasure of the Governor. The voting members of the Board other than the lieutenant governor and commissioners/designees serve for staggered four-year terms and may serve until a successor is appointed. An appointment to fill a vacancy shall be made in the same manner as the original appointment and for the balance of the unexpired term.

Section 2. The Governor shall ensure that individuals appointed to the Board have sufficient expertise to effectively carry out the duties of the Board. This expertise includes: knowledge of the long-term needs of individuals preparing to enter the workforce; the needs of local, state, and regional labor markets; and the methods for evaluating the effectiveness of **vocational training career and technical education programs** in serving varying populations.

ARTICLE VI OFFICERS & ELECTION OF OFFICERS

Section 1. The Board shall elect a chair and vice chair from among the members who are designated representatives of business and industry as appointed under AS 23.15.550. Both the chair and the vice-chair serve at the pleasure of the Board. The chair, vice-chair and immediate past chair shall serve as members of the Executive Committee.

The Board Chair shall annually, prior to December 31st of each year, select a Nominating Committee of members who do not intend to run for elected office. The Nominating Committee shall contact board members to solicit eligible candidates for the two elected offices, Chair and Vice-Chair. A notice of election and list of eligible nominated candidates will be sent to Board members no less than thirty days before the meeting when **elections will be held candidates may address the board. The election of officers will take place via electronic survey, or email, or mailed ballots after the board meeting.**

Section 2. Term of Office. The Chair and Vice-Chair will be elected annually.

ARTICLE VII MEETINGS & QUORUM

The Board shall hold no more than three meetings annually. The Board shall meet at the call of the chair to conduct its business. A majority of the appointed members constitutes a quorum.

Board meetings may be held via face to face, teleconference, and videoconference.

ARTICLE VIII ATTENDANCE

Section 1. A Board member who misses two consecutive face-to-face or teleconference board or committee meetings shall receive a letter from the Chair encouraging more consistent attendance. A Board member who misses three consecutive face-to-face or teleconference board or committee meetings will have their attendance reviewed by the Executive Committee for removal from the Board.

ARTICLE IX DELEGATES/DESIGNEES:

A member of the board appointed by the governor under (a) ~~of Sec. AS~~ **AS** 23.15.550 may appoint a voting designee qualified to serve in their designation place of the member for one board meeting in a 12 month period. The member shall appoint the designee for that meeting in writing.

ARTICLE X COMMITTEES

Section 1. The Board has established an Executive Committee and six standing committees to conduct its business.

Section 2. The Board chair will appoint the chairs of the six standing committees.

Section 3. The Executive Committee is made up of the Board chair, vice-chair, past chair and the ~~six~~ **four** chairs of the standing committees. All board members may attend any Executive Committee meeting.

The Executive Committee shall:

- (1) have duties and powers assigned by the Board
- (2) have the authority to take action on behalf of the Board (when lacking necessary quorum; in case of an emergency, etc.)
- (3) report to the Board, in a timely fashion, on actions taken on behalf of the Board
- (4) supervise the affairs of the Board between regular meetings.

Section 4. The Assessment and Evaluation Committee. Assessment and evaluation of programs, initiatives and delivery of services by this committee will help ensure equitable distribution of quality education, training and employment services statewide, especially to rural areas and areas serving economically disadvantaged citizens. This committee will call for and monitor the workforce development system for increased accountability in performance and continuous quality improvement along the goals and strategies of the Board's unified plan. **overall statewide human resource investment strategic plan.** The Assessment and Evaluation Committee will also use evaluation and performance measures to gauge customer satisfaction within the workforce system.

Section 5. The Policy and Planning Committee will build policies regarding day-to-day operations and long-term responsibilities of the Board and work to increase awareness of AWIB and its mission throughout the state. This committee will work with all committees on the statewide strategy for workforce investment.

Section 6. The Employment and Placement Committee. This committee will ensure the statewide strategic plan for workforce development addresses customer needs at the local level; moving low-income adults and youth, veterans, and disabled populations into the workforce as a priority of service; promoting hire of Alaskans in jobs that have traditionally been filled with out-of-state workers; tailoring employment and training programs to suit Alaskan business, industry and economic development needs. It will monitor the coordination of service delivery to promote efficiency and prevent overlap of services among programs. **This committee is combined with the workforce readiness committee.**

Section 7. The Workforce Readiness Committee will provide oversight for training, education and employment programs to ensure programs are delivering education and training that is relevant to local market needs and the future career goals of Alaskans. It will help coordinate the delivery of programs in a manner that eliminates needless duplication. The committee will build partnerships between employers and quality workforce training programs. It will work to connect the Alaska public and private education system with business, government and labor to ensure Alaskans are receiving workforce readiness skills throughout their education process. **This committee is combined with the employment and placement committee.**

Section 8. A Legislative Work Committee will be appointed by the Chair of the Board to bring issues of concern to the Legislature on behalf of the Board.

~~*Section 9.* A Youth Council Committee will be appointed by the Chair of the Board to bring issues of concern to the Board. The Youth Council will develop, recommend and oversee youth employment and training policy in Alaska to ensure that programs deliver a workforce ready to meet the demands of future jobs. It will establish~~

connections between organizations, service providers, educational organizations and Alaska's youth. The Youth Council will broaden the vocational youth employment and training focus in the community and practice by increasing the awareness that Alaska's youth must participate in creating their own road to the future. It will develop an inventory of available youth workforce and training programs, which will improve the policy and public funding process relating to youth workforce programs. The Youth Council will assist youth in developing natural leadership skills and keys to success, and develop a system to facilitate the youth to motivate themselves. **DELETED, not required under the Workforce Innovation and Opportunities Act of 2014.**

Section 10 9. Ad Hoc committees may be appointed by the chair to work on issues of a temporary nature as needed.

Section 11 10. The administrative staff of the Board in the Alaska Department of Labor and Workforce Development shall provide support and administrative services as needed for the committees.

ARTICLE XI TRAVEL POLICY

The AWIB supports the professional development of its members, in alignment with board goals. Professional development may occur in a variety of ways. If a member wants to travel to or simply attend a conference/meeting/workshop, the member must gain approval. The value of the professional development, the costs involved, departmental approval and the status of AWIB's budget shall be considered as part of final approval process

ARTICLE XII AMENDMENTS TO THE BYLAWS

These bylaws may be approved, amended, or repealed through adoption of Board action by a 2/3 vote of the members present at any regular meeting providing the proposed changes do not conflict with existing federal or state laws, regulations or guidelines.

ARTICLE XIII PARLIAMENTARY PROCEDURE

Only parliamentary procedures as laid out in *Roberts Rules of Order, Newly Revised*, shall prevail in all regularly scheduled and special meetings of the Board and any standing or ad hoc committees thereof.

ARTICLE XIV INDEMNIFICATION

The Board and all committees thereof shall operate within the applicable state and federal laws. The State of Alaska shall indemnify every member of the Board and his/her executors and administrators against all expenses reasonably incurred by or imposed on him/her in connection with any actions, suit or proceeding at which he/she may be made part by reason of being or having been a member or officer of the Board, except in relation to matters as to which he/she shall be finally adjudged in such conduct, suit, or proceeding to be liable for negligence or misconduct, and in the absence of such final adjudication, indemnification shall be provided only in connection with such matters as to which the Board members are advised by legal counsel that the person to be indemnified committed no such breach of duty. The foregoing right of indemnification shall not be exclusive of any other rights to which such person may be entitled.

ARTICLE XV CONFLICT OF INTEREST

Board members shall disclose any potential or real conflict at the earliest possible time and remove themselves from any key decisions or debates where the outcome may or will have an impact on related activities. Board members shall scrupulously avoid undisclosed conflicts of interest between the interests of the State of Alaska and the Board, and personal, professional, and business interests. This includes avoiding potential and actual conflicts of interest, as well as perceptions of conflicts of interest. Upon or before appointment, each Board member will make a full, written disclosure of interests, relationships, and holdings that could potentially result in a conflict of interest. This written disclosure will be kept on file and updated as appropriate.

In the course of meetings or activities, a board member shall disclose any interests in a transaction or decision where he/she or his/her family and/or significant other, employer, close associates, including business or other nonprofit affiliations, will receive a benefit or gain. After disclosure, he/she may be asked to leave the room for the discussion and will not be permitted to represent AWIB to external agencies on this issue or vote on the question.

Each board member will be asked to sign a conflict of interest policy document stating his/her understanding that this policy is meant to supplement good judgment, and he/she will respect its spirit as well as its wording.



**ALASKA DEPARTMENT OF LABOR
& WORKFORCE DEVELOPMENT**

**Alaska Workforce Investment Board
David G. Stone
Employer of the Year Award
Criteria**

PURPOSE

The strength of the Alaska workforce system is dependent on the collaboration that exists between workforce professionals, employers, employees, economic developers, and training and education providers. The David G. Stone Employer of the Year Award recognizes a private sector employer whose efforts and initiatives have had an extraordinary effect on the state of Alaska, other employers, workers, and communities where the employer conducts business.

CRITERIA

Recognition may be based on the employer's efforts in areas, including, but not limited to:

- Training and retaining employees
- Upgrading employer's workforce skills
- Increasing Alaska resident hire
- Job creation or redesign
- Child care solutions
- Job sharing and telecommuting
- Activities with students, schools, colleges, training providers, and workforce education or development programs
- Community involvement or collaboration

NOMINEE ELIGIBILITY

Nominees must be an employer providing jobs to Alaskans. The employer should have demonstrated support for the public workforce system. The employer should not have any significant wage and hour, equal opportunity, unemployment insurance, or other violations identified by the state.



**ALASKA DEPARTMENT OF LABOR
& WORKFORCE DEVELOPMENT**

Alaska Workforce Investment Board

David G. Stone

K-12

**Career and Technical Education Instructor/Administrator of the Year Award
Criteria**

PURPOSE

The AWIB supports education and training that leads to employment and careers. To support this mission, the AWIB is soliciting nominations from employers for the David G. Stone K- 12 Career and Technical Education Instructor/Administrator of the Year Award. Nominees will represent individuals whose programs are directly connected to placement of their students in a training, career and technical education program or apprenticeship.

Recipients of this award must have made significant contributions toward innovative programs that are serving to improve and promote career and technical education.

CRITERIA

- 1) **PROFESSIONAL PRACTICE:** The nominee demonstrates instructional expertise, creativity, and innovation. The nominee is an instructional leader at the local, state, and/or national level.
- 2) **COMMUNITY ENGAGEMENT:** The nominee frequently interacts with community members on substantive education issues. The nominee identifies and helps to bring community resources to students in both formal and informal settings.
- 3) **LEADERSHIP IN PROFESSIONAL DEVELOPMENT:** The nominee continually engages in experience to improve his or her practice and to gain new skills and knowledge. The nominee shares this new learning with colleagues in a variety of venues. The nominee's participation in and commitment to professional development has a visible impact on his or her institution, student, and community.
- 4) **ATTENTION TO DIVERSITY:** The nominee works to provide a learning environment that meets the needs of all students, regardless of differences. The nominee uses a variety of techniques to effectively address students' different learning styles and needs. The nominee recognizes and explicitly addresses the full array of values, cultures, and experiences represented in our diverse modern society, through curriculum, instruction and/or administration and in other interactions with students.

NOMINEE ELIGIBILITY

Individuals employed as classroom/laboratory instructors or administrators in a K-12 vocational technical career education program are eligible recipients for this award..



**ALASKA DEPARTMENT OF LABOR
& WORKFORCE DEVELOPMENT**

Alaska Workforce Investment Board

David G. Stone

Post-Secondary

**Career and Technical Education Instructor/Administrator of the Year Award
Criteria**

PURPOSE

The AWIB supports education and training that leads to employment and careers. To support this mission, the AWIB is soliciting nominations for the David G. Stone Post-Secondary Instructor/Administrator of the Year Award. Nominees will represent individuals whose programs are directly connected to training, a career and technical education program or apprenticeship.

Recipients of this award must have made significant contributions toward innovative programs that are serving to improve and promote career and technical education.

CRITERIA

- 1) **PROFESSIONAL PRACTICE:** The nominee demonstrates instructional expertise, creativity, and innovation. The nominee is an instructional leader at the local, state, and/or national level.
- 2) **COMMUNITY ENGAGEMENT:** The nominee frequently interacts with community members on substantive education issues. The nominee identifies and helps to bring community resources to students in both formal and informal settings.
- 3) **LEADERSHIP IN PROFESSIONAL DEVELOPMENT:** The nominee continually engages in experience to improve his or her practice and to gain new skills and knowledge. The nominee shares this new learning with colleagues in a variety of venues. The nominee's participation in and commitment to professional development has a visible impact on his or her institution, student, and community.
- 4) **ATTENTION TO DIVERSITY:** The nominee works to provide a learning environment that meets the needs of all students, regardless of differences. The nominee uses a variety of techniques to effectively address students' different learning styles and needs. The nominee recognizes and explicitly addresses the full array of values, cultures, and experiences represented in our diverse modern society, through curriculum, instruction and/or administration and in other interactions with students.

NOMINEE ELIGIBILITY

Individuals employed as classroom/laboratory instructors or administrators including training coordinators and training directors in a post-secondary training, career and technical education program or apprenticeship, are eligible to receive this award.

State of Alaska Department of Labor and Workforce Development

Division: Alaska Workforce Investment Board	Policy: 100-2014
Subject: Alaska Technical and Vocational Education Program Assessment and Transcription of Credit for Military Training and Experience	Pages: 3
Reference: ASO S.01; AS23.15. 820-850	Effective: January 1, 2014
	Revised:
Approved: _____ <div style="display: flex; justify-content: space-between; width: 100%;"> Heather Beaty, Executive Director Date </div>	

1. Parties Affected

Alaska Technical and Vocational Education Program (TVEP) fund recipients including the State of Alaska University System and the Alaska Workforce Investment Board (AWIB).

2. Purpose

The purpose of this policy is to ensure TVEP recipients assess and transcribe credit for military training and experience consistent with the established standards for credit evaluation and award prescribed by the American Council on Education (ACE). This policy:

- a) Recognizes military training has valuable educational/vocational content; and
- b) Establishes requirements for TVEP fund recipients to accept and transcribe credit hours toward a degree or technical/vocational program for an applicant/ student who provides satisfactory evidence of successful completion of relevant military education, training, or service as a member of the armed forces of the United States, the United States Reserves, the National Guard of any state, the Military Reserves of any state, or the Naval Militia of any state.

3. Background

[Alaska House Bill 84](#) from the 28th Legislature directed the AWIB to facilitate the development and implementation of a statewide policy and procedure that provides for the

acceptance of credit or hours toward a degree or technical program offered by a vocational or technical training center in the state for an applicant who provides satisfactory evidence of successful completion of relevant military education, training, or service as a member of the armed forces of the United States, the United States Reserves, the National Guard of any state, the Military Reserves of any state, or the Naval Militia of any state.

Since 1945, the ACE Military Evaluations Program has evaluated formal military training in terms of academic and vocational credits, allowing veterans to earn undergraduate and vocational credits for learning and training acquired in the military. The results of these evaluations, along with learning outcomes, course descriptions, and recommendations for the type and amount of credit that may be awarded, are published biennially in the [ACE Guide](#). The ACE Guide and the [ACE Registry and Transcript System](#) are the standard reference tools used by the majority of U.S. colleges, universities and vocational institutions to award credit for military learning.

The ACE Military Evaluations Program also offers an advisory service for civilian institution officials and other users who are unable to identify courses completed by service personnel and veterans. Each edition of the Guide provides appropriate request forms to be completed by applicants. College, university and vocational institutions are urged to reproduce these forms and use them when searching for credit recommendations. Currently, more than 2,300 colleges and universities recognize these ACE transcripts as official documentation of military training and experiences and applicable the ACE credit recommendations.

4. Definitions

- a) vocational or technical training centers for the purpose of this policy are entities identified as a TVEP recipient.
- b) TVEP recipients are categorized as entities receiving funds through direct appropriations or competitively from the Alaska Technical and Vocational Education Program.

5. Policy

- a) TVEP fund recipients will develop and implement a policy and procedures for military personnel/veterans to apply/petition for credit, certification, or licensure of eligible program for learning acquired in military service training and experience at levels consistent with ACE guidelines by December 31, 2013.
- b) To be eligible to receive credit for military service, a veteran must:
 - (1) Have graduated from a public or private high school accredited by a generally recognized accrediting organization or from a high school operated by the United States Department of Defense;
 - (2) ~~Have completed at least two years of service in the armed services (or have been discharged because of a disability); and~~

(2) Currently serving in the armed forces; or

(3) Have been honorably discharged from the armed forces.

- c) TVEP recipients will utilize the ACE Military Guide at: <http://www.acenet.edu/news-room/Pages/Military-Guide-Online.aspx> for discerning military experiences and training for credit or program equivalency.
- d) Ensure military credit evaluation is completed after a veteran has been admitted to the TVEP institution and has submitted all required documentation.
- e) Award of credit for military training and experience is based upon official documentation. Acceptable documents for assessment of military training and experience are: Official transcripts for programs of study issued by the United States Armed Forces Institute (USAFI), Defense Activity for Non-Traditional Education Support (DAN'IES), Army Command and General Staff College, Community College of the Air Force (CCAF) Army/American Council on Education Registry Transcript (AARTS), and Sailor/Marine American Council on Education Registry Transcript (SMART) System; and the student's DD 214 form **or NGB 22, indicating that the student was honorably discharged AND completed at least two (2) years of military service OR was discharged because of disability. For those currently serving, must provide proof of status.**
- f) TVEP fund recipients should make the following referrals to assist potential veteran applicants/ students without official military transcripts to obtain requisite documentation:
- (1) Army, Navy and Marine Corp service members to include active duty, reserve and veterans request a [Joint Service Transcript](#).
 - (2) Air Force and Air National Guard service members request an [Air Force CCAF Transcript](#).
 - (3) Coast Guard service members can request a [Coast Guard Transcript](#).
- g) If the military training, experience, or coursework equivalent meets a general education, vocational, or degree program requirement, credits will be awarded and transcribed that meet requirement and count towards graduation; otherwise, appropriate elective course credit may be granted.
- h) A TVEP fund recipient is the final authority for assessing and transcribing credit for military training and experience.
- i) No further evaluations will be conducted unless students receive new training that qualifies as credit earning, and the student has not received maximum allowed credit from military training and/or experience at the institution enrolled.
- j) TVEP recipients will apply for membership with ACE if applicable.

RESOLUTION NUMBER 16-02
RESOLUTION to Increase Alaska Resident Hire
Amended March 17, 2016
Amended May 4, 2016

WHEREAS, the Alaska Workforce Investment Board (AWIB) is an industry-driven public organization comprised of representatives from business and industry, education, organized labor, and government; and

WHEREAS, the AWIB is a public organization that is accountable through its members and staff to the residents, the Legislature and the Governor of Alaska; and

WHEREAS, the AWIB shall act as the lead state planning and coordinating entity for state programs involving employment training, ~~vocational education~~ **career and technical education**, and workforce development; and

WHEREAS, the AWIB recognizes the Alaska Department of Labor and Workforce Development's 2014 Nonresidents Working in Alaska Report data shows 21% of workers in Alaska are nonresidents ; and

WHEREAS, the AWIB recognizes the Alaska Department of Labor and Workforce Development's 2014 Nonresidents Working in Alaska Report data shows the percentage of nonresident workers and the percentage of wages earned by nonresidents both increased slightly over the previous year; and

WHEREAS, the AWIB recognizes the Alaska Department of Labor and Workforce Development's 2014 Nonresidents Working in Alaska Report data demonstrates the percentages of nonresident workers are greater than 25% in some of the most important industry sectors in Alaska; and

WHEREAS, the AWIB has a longstanding strategic position to continually increase the percentage of Alaska resident employment especially in high wage occupations; and

WHEREAS, the AWIB encourages the Alaska Department of Labor and Workforce Development to target training funds towards organization whose training and development programs will increase Alaska resident employment in high wage occupations that are currently filled by a significant percentage of Alaska non-residents; and

WHEREAS, the AWIB recommends the Governor of Alaska and the Alaska Department of Labor and Workforce Development identify ways to recognize employers who increase their utilization of Alaska residents and reduce their dependence on non-residents to meet their workforce needs; and

WHEREAS, the Governor of Alaska and the Commissioner of the Alaska Department of Labor and Workforce Development issued an Alaska Hire determination effective July 1, 2015, requiring at least 90% of state-funded public construction jobs be filled by Alaska residents; and

WHEREAS, the Governor of Alaska issued Administrative Order 278 on November 11, 2015, expanding Apprenticeship Utilization policies to include the Department of Administration and

Department of Natural Resources as well as the Department of Transportation and Public Facilities, in recognition of Registered Apprenticeship's contribution to Alaska resident hire through workforce readiness; and

WHEREAS, Apprenticeship Utilization Requirements in Section 645 present an opportunity to increase Alaska resident hire on federally-funded transportation projects; and

WHEREAS, the Alaska Department of Labor and Workforce Development is working with health care organizations to expand Registered Apprenticeship and ensure organizations can hire health care workers from within Alaska; and

WHEREAS, the AWIB encourages organizations from the public and private sector to increase transparency by sharing Alaska resident hire statistics in publically available annual reports; and

WHEREAS, the AWIB encourages the Alaska Department of Labor and Workforce Development to provided annual apprenticeship reports to the board; and

WHEREAS, the AWIB has previously and continues to recognize the significant economic impact of increasing Alaska resident hire, and believes the rate of Alaska resident hire can be improved;

NOW THEREFORE BE IT RESOLVED that the AWIB urges the Governor of Alaska, the Alaska Legislature, and the Alaska Department of Labor and Workforce Development to support initiatives that increase Alaska resident hire, including but not limited to implementation of Apprenticeship Utilization Requirements in Administrative Order 278 and Section 645, through expanded health care apprenticeships, and through continued outreach to employers.

CERTIFICATION

The Alaska Workforce Investment Board held a meeting duly and regularly called, noticed, and convened this ___th day of _____, 2016 and the foregoing Resolution was adopted unanimously at said meeting.

Signed this ___th day of _____, 2016.

Larry Bell, Chair
Alaska Workforce Investment Board