

Alaska Defense Industry Resilience Initiative Business Report

PREPARED FOR:

University of Alaska Center for Economic Development

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Summary of Key Findings

Alaska has long been a significant strategic U.S. military asset, and the defense industry has long been important to Alaska's social and economic fabric. The Department of Defense (DOD) spent \$3.5 billion in Alaska in FY 2018, and 10% of construction spending in 2019 in Alaska was tied to defense.¹ The Alaska Defense Industry Resilience Initiative seeks to better understand the contributions of the military and Coast Guard to Alaska's economy, and to strengthen these connections. As part of this DOD-funded effort, the University of Alaska Center for Economic Development engaged McDowell Group to survey firms serving the defense industry in Alaska. The purpose of the business survey and associated key informant interviews is to fill knowledge gaps on Alaska's business climate, services or assistance needed, confidence level, and related topics.

Key Findings

Economic Climate and Defense Industry Outlook

Vendors and key informants view the state economy as slightly strong but vulnerable, with a positive outlook for defense investment. Vendors rated Alaska's overall business climate 2.8 on a 1 to 5 scale, or slightly stronger than neutral. Key informants responded similarly, but several noted that the economy is fragile, with critical decisions looming. More than four in five vendors said the defense industry is "very important" to Alaska's economy, while the remainder called it "somewhat important." Almost half of vendors (43%) anticipate growth in defense activity in Alaska the next few years, while only 8% expect contraction. Most key informants foresee some near-term growth associated with major projects (notably F-35 beddown at Eielson Air Force Base and long-range missile defense at Clear Air Force Base), leveling off at current or slightly higher spending levels; longer-term growth opportunities center on overall defense budgets and strategic investment in the Arctic.

Qualified Staff in Alaska

Findings suggest it is difficult to find qualified staff for defense work in Alaska, particularly for more highly-skilled positions. Seven in 10 vendors said it is somewhat or very difficult to find qualified staff for defense work in Alaska; the most difficult job classes to fill are professional/technical and skilled labor, while entry-level positions are the least difficult to fill. Vendors cited a variety of positions as hardest to fill, including those requiring specialized training (e.g., pilots, healthcare, IT, skilled trades, and science and engineering positions) or high-level security clearance, and remote or seasonal positions.

¹Department of Defense, Readiness and Environmental Protection. *State Profile: Alaska* (undated). https://www.repi.mil/Portals/44/Documents/State_Fact_Sheets/Alaska_StateFacts.pdf

Barriers to Increased Defense Contracting in Alaska

Findings indicate competition, procurement challenges, and costs are key barriers to increased defense contracting in Alaska. Chief barriers vendors cited to doing more defense contracting in Alaska were competition among vendors in-state and out-of-state and challenges with a complex procurement system. Other barriers cited include military spending levels (i.e., availability of work), remote location and associated logistical challenges, and staffing challenges. About 30% of vendors reported no barriers to their doing more defense industry work in Alaska. Key informants largely mirrored vendors' observations, and many noted Alaska's high costs, particularly in remote areas.

Opportunities to Boost Defense Activity in Alaska

Findings indicate procurement changes and partnerships are key opportunities to boost defense contracting in Alaska, while quality of life, promotion of Alaska's assets, and cost control can draw military personnel and spending to Alaska. Vendors suggested a variety of ideas to attract increased defense activity in Alaska, including changes in policies and regulations particularly around procurement, workforce development, increased availability of subcontractors, and access to capital. Some vendors noted that geopolitical factors such as increased arctic focus play an important role in defense decisions. Key informants' suggestions focused on quality of life (particularly education and housing), professional licensure, promotion of Alaska's assets, community awareness of defense industry contributions, and cost control. To boost local defense contracting, key informants suggested partnerships between defense industry; research, training and educational institutions; and state government; outreach and procurement simplification on the defense side; and increased competitiveness on the vendor side.

Alaska Strengths

Key Alaska assets for the defense industry include its strategic location and unique training opportunities. Many key informants noted Alaska's strategic location is an increasingly important asset as geopolitical focus shifts to the Pacific and the Arctic. Defense industry informants also praised Alaska's level of support for the industry. Specific strengths mentioned include training opportunities such as vast open spaces and a lack of flying-hour restrictions found elsewhere, tax-friendly environment, partnerships with industry, and a good quality of life.

Introduction and Methodology

Introduction

The Alaska Defense Industry Resilience Initiative seeks to better understand the contributions of the military and Coast Guard to Alaska's economy, and to strengthen these connections. The University of Alaska Center for Economic Development is leading this DOD-funded initiative, which seeks to:

- Identify barriers and vulnerabilities to defense sector firms
- Better understand community sensitivities to changes in defense activity
- Identify types of assistance needed by defense firms
- Identify assets, resources, and stakeholders to support resilience of defense firms.

The scope of work includes a supply chain analysis, business survey, economic assets map, and community-level economic impact analysis. UACED contracted with McDowell Group to conduct a survey of firms serving the defense industry in Alaska. The purpose of the survey and associated key informant interviews is to fill knowledge gaps remaining after the supply chain analysis by collecting information on Alaska's business climate, services or assistance needed, confidence level, and related topics.

Methodology

Vendor Database Development

UACED staff queried the Federal Procurement Data System (FPDS) to retrieve information on contracts issued by the United States Armed Forces including the Corps of Engineers, Department of Defense, and Department of Homeland Security (including the U.S. Coast Guard) from 2009 through 2018. The list was then filtered for contracts where the place of performance was listed as Alaska.

The database includes the following fields:

- Vendor name
- DUNS number
- Vendor phone numbers
- Vendor state and zip code
- Place of performance (borough)
- Funding department
- Fiscal year of contract award
- Estimated project completion date
- NAICS codes and descriptions
- Product/service codes and descriptions
- Action obligation (budget)

Data was cleaned and consolidated prior to further analysis. To reduce the list to a manageable number of vendors, NAICS codes that had less than \$1 million dollars of average annual spending for the ten-year period were removed. This reduced the number of businesses in the survey sample from nearly 4,300 to 2,272 and reduced the number of contracts from about 50,000 to 21,435. The reduced list retained 74% of all contracted spending in the original list. Individual vendors' 10-year total Alaska defense budgets for goods and services ranged from \$200 to nearly \$1.4 billion. Vendors may be based in Alaska or elsewhere in the U.S.

Vendor Surveys

The database included at least one telephone number for each vendor and in many cases multiple numbers across multiple states. The list did not include vendor contact names, resulting in the need for "cold calling." McDowell Group interviewers were often redirected to other numbers or to other personnel after initial contact was made.

Through the course of research, the study team identified 137 vendors with unique DUNS numbers that were subsidiaries of other listed vendors (mostly Alaska Native Corporations), leaving 2,135 unique entities. While the study team put considerable effort into identifying subsidiaries, there may be others not identified. Where identified, the interviewer asked the contact to provide responses encompassing all subsidiaries. At least one call, and up to seven calls and in some cases emails, were made to 825 unique vendors or about 39% of the list between January 21, 2020 and March 3, 2020, and 151 surveys were completed. Vendors surveyed had contracts totaling \$7,500 to \$410 million between 2009 and 2018. Some vendors had defense industry contracts every year of the decade, while others had only a single contract.

Survey protocols were developed and tested in coordination with UACED. Interviewers had latitude to ask follow-up questions and record information and responses beyond the scope of the protocols.

KEY INFORMANT INTERVIEWS

McDowell Group staff conducted interviews with a dozen key informants between March 9 and March 18, 2020, regarding the state of the defense industry in Alaska. Interviewees included current and retired military personnel, economic development and business group leaders, and local and state government officials.

COVID-19

All vendor interviews took place before COVID-19 was a significant issue in Alaska. The potential social and economic impacts of the virus loomed larger during key informant interviews. Interviewees were asked to consider the questions in light of conditions prior to the virus and to disregard, for the purposes of the study, potential impacts of COVID-19.

Defense Industry Business Survey Results

Vendor Profile

Following is a profile of vendors interviewed for this project. Not all respondents were able or willing to answer all questions and some responses were given in ranges rather than a specific number. Non-respondents and those who provided data in ranges are excluded from the analysis. Each table provides the sample size used for analysis (n=).

Alaska Staffing

TOTAL ALASKA STAFF

- Of the vendors interviewed, 17% percent reported they currently have no employees working in Alaska.
- Two-thirds (64%) have 50 or fewer employees in Alaska, with 38% between 1 and 10 employees.
- On average, vendors reported 80 full-time equivalent (FTE) employees working in Alaska.

ALASKA STAFF DOING DEFENSE INDUSTRY WORK

- One-third of vendors said they have no staff in Alaska currently engaged in defense industry work.
- Another 60% of vendors have between 1 and 50 employees and 7% have more than 50 employees engaged in defense industry work in Alaska.
- Vendors reported an average of 16 employees engaged in defense industry work Alaska.
- On average, 20% of vendors' Alaska staff are engaged in defense industry work.
- Vendors reported an average peak of 30 full- and part-time employees engaged in defense industry work in Alaska over the past decade.

Current Alaska Staffing				
Total Employees in AK			Working on Defense	
Employees	Count	% of total	Count	% of total
>200	5	3%	1	1%
50-200	23	15%	8	6%
11-50	40	27%	27	19%
1-10	56	38%	60	41%
Zero	25	17%	49	34%
n=	149	100%	145	100%
Average	80		16	

PERCENTAGE OF GLOBAL EMPLOYEES ENGAGED IN DEFENSE INDUSTRY WORK IN ALASKA OVER THE LAST THREE YEARS

- 14% of vendors said all of their workforce was engaged in Alaska defense industry work in the last three years.

- 20% of vendors said 50-99% of their total global workforce was engaged in Alaska defense work.
- 46% of vendors said 1-49% of their total global workforce was engaged in Alaska defense work.
- 20% of vendors said less than 1% of their global workforce was engaged in Alaska defense work.

Global Staff Engaged in Defense Work in Alaska

Employees	Count	% of total
100%	17	14%
50-99%	25	20%
11-49%	17	14%
1-10%	39	32%
<1%	24	20%
n=	122	

Alaska Defense Industry Revenue

PERCENTAGE OF TOTAL GLOBAL REVENUE FROM ALASKA DEFENSE INDUSTRY WORK OVER THE LAST DECADE

- About one-quarter (26%) of vendors reported that 50% or more of their revenue over the last decade came from defense industry work in Alaska, including 3% that reported the industry as their sole source of revenue.
- Nearly one-quarter (23%) reported that Alaska defense industry work provided less than 1% of their total global revenue for the decade.

Percent of Global Revenue from Defense Work in Alaska

% of Revenue	Count	% of total
100%	3	3%
50-99%	28	24%
11-49%	16	14%
1-10%	44	37%
<1%	27	23%
n=	118	

Alaska Defense Industry Longevity

YEARS WORKING IN DEFENSE INDUSTRY IN ALASKA

- Vendors said they had worked with the defense industry in Alaska for as little as 1 year and up to 55 years.
- Vendors worked an average of 21 years with the Alaska defense industry.
- Two-thirds of vendors worked with the industry for 20 or fewer years, and one-quarter for 21 to 50 years.
- 7% of vendors reported they had worked with the industry for more than 50 years.

(see table next page)

Years Working in Defense Industry in Alaska

Years	Count	% of total
1-10	45	30%
11-20	55	37%
21-50	38	26%
51+	10	7%
n=	148	

Business Climate

Importance of Defense Industry in Alaska's Economy

- More than four in five (82%) vendors said the defense industry is "very important" to Alaska's economy.
- 11% deemed the industry "somewhat important."
- 7% (mostly out of state) said they don't know how important the defense industry is to Alaska's economy.

Importance of Defense Industry in Alaska Economy

	Count	% of total
Very important	124	82
Somewhat important	16	11
Not important	0	0
DK	11	7
Total	151	100%

Alaska's Overall Business Climate

Vendors were asked to rate Alaska's current business climate on a 5-point scale: *very strong*=1, *slightly strong*=2, *neither strong nor weak*=3, *slightly weak*=4, or *very weak*=5.

- Almost half of vendors called the business climate slightly strong (36%) or very strong (10%).
- One-third of vendors said the business climate is slightly weak (24%) or very weak (9%).
- 15% of vendors said the business climate is neither strong nor weak, and 9% said they don't know.
- Vendors' average rating (excluding "don't knows") is 2.8, or slightly better than neither strong nor weak.

Overall Business Climate in Alaska

	Count	% of total
Very strong	15	10
Slightly strong	54	36
Neither strong nor weak	22	15
Slightly weak	36	24
Very weak	11	7
Don't know	13	9
Total	151	100%

Alaska Defense Industry Outlook

Vendors were asked, "Overall, do you think the defense industry in Alaska will fare much better, slightly better, slightly worse, much worse, or remain unchanged over the next few years?"

- 43% of vendors foresee growth, with 38% responding "slightly better" and 15% "much better."
- 8% of vendors foresee contraction, with 7% responding "slightly worse" and 1% "much worse."
- More than one-quarter (28%) believe the defense industry will stay the same in the next few years.

Vendors' Alaska Defense Industry Outlook

	Count	% of total
Much better	22	15
Slightly better	57	38
Slightly worse	10	7
Much worse	1	1
Remain unchanged	43	28
Don't know	18	12
Total	151	100%

Vendor Defense Activity Outlook

REVENUE

Vendors were asked, "Over the next few years, do you anticipate your company's revenue from the defense industry in Alaska will significantly increase, slightly increase, slightly decrease, significantly decrease, or remain unchanged?"

- A plurality (41%) of vendors anticipate no change in their revenues related to Alaska defense industry work.
- 38% foresee growth, with 33% anticipating a slight increase and 5% anticipating a significant increase.
- 13% foresee decline, with 8% anticipating a slight decrease and 5% anticipating a significant decrease.

Vendors' Alaska Defense Industry-Related Revenue Outlook

	Count	% of total
Significant increase	8	5
Slight increase	50	33
Slight decrease	12	8
Significant decrease	7	5
No change	62	41
Don't know	12	8
Total	151	100%

HIRING

Vendors were asked, “Over the next few years, do you anticipate hiring significantly more staff, slightly more staff, slightly reducing staff, significantly reducing staff, or no change in staffing related to defense industry work in Alaska?”

- Staffing expectations largely track revenue expectations reported above.
- Nearly half (46%) of vendors anticipate no change in staffing level related to Alaska defense industry work.
- 41% expect to increase staffing, the nearly all (40%) anticipate slightly more hiring.

6% foresee staffing reductions, about evenly divided between those expecting slight and significant reductions.

Vendors’ Alaska Defense Industry-Related Hiring Outlook

	Count	Column
Significantly more	2	1
Slightly more	60	40
Slight reduction	4	3
Significant reduction	5	3
No change	69	46
Don’t know/NA	11	7
Total	151	100%

Hiring Qualified Staff in Alaska

Vendors were asked how difficult they find it to hire qualified staff for defense industry work in Alaska. They were subsequently asked to rate the difficulty or ease of hiring qualified staff in four categories including entry level staff, skilled labor, professional/technical workers, and executive positions.

- 7 in 10 vendors said it is somewhat difficult (46%) or very difficult (25%) to find qualified staff for defense work in Alaska.
- 17% of vendors said it is not difficult to find qualified staff for Alaska defense work, and 12% said they don’t know, or the question is not applicable.

Finding Qualified Staff in Alaska

	Count	% of total
Very difficult	38	25
Somewhat difficult	70	46
Not difficult	25	17
Don’t know/Not applicable	18	12
Total	151	100%

- The least difficult positions to fill are entry-level, with nearly half (49%) of vendors saying it is not difficult.

Entry Level Staff

	Count	% of total
Very difficult	11	7
Somewhat difficult	40	26
Not difficult	74	49
Don't know/Not applicable	26	17
Total	151	100%

- 67% of vendors say it is somewhat difficult (42%) or very difficult (25%) to find qualified skilled labor, while 15% report it is not difficult.

Skilled Labor

	Count	% of total
Very difficult	38	25
Somewhat difficult	63	42
Not difficult	22	15
Don't know/Not applicable	28	19
Total	151	100%

- 69% of vendors say it is somewhat difficult (36%) or very difficult (33%) to hire qualified staff for professional and technical positions. Only 11% say it is not difficult to fill these positions.

Professional/Technical Workforce

	Count	% of total
Very difficult	54	36
Somewhat difficult	50	33
Not difficult	16	11
Don't know/Not applicable	31	21
Total	151	100%

49% of vendors say it is difficult to find qualified executive-level staff, with 23% saying it is somewhat difficult and 26% very difficult.

Executive Level Staff

	Count	% of total
Very difficult	40	26
Somewhat difficult	34	23
Not difficult	14	9
Don't know/Not applicable	63	42
Total	151	100%

Most Difficult Jobs to Fill

Vendors were asked an open-ended question, "Are there specific jobs that are hardest for you to fill?"

- 27% named professional and technical positions such as psychologists, pilots, or professional engineers.
- 25% named skilled trades such as carpenters, electricians, and welders.
- 13% named management positions, and 3% cited executive positions.
- 5% said positions at all levels are hard to fill.
- 17% said no positions are hard to fill.
- 9% noted other hiring challenges; for example, it is difficult to find people with security clearance or to find qualified staff for remote work.
- 7% said the question is not applicable; for example, their companies fly staff to Alaska when needed, use subcontractors, or provide goods (such as office furniture) supplied from outside Alaska.

Most Difficult Positions/Jobs to Fill in Alaska

Type of Position	Count	% of total
Professional/Technical	41	27%
Skilled trades	38	25%
Management	19	13%
Executives	5	3%
All positions	7	5%
Not applicable	11	7%
None	25	17%
Other comments	13	9%

Vendor comments were illuminating. Some said qualified people are retiring faster than they are being replaced. One vendor said: "Businesses, state, and federal agencies in Alaska are losing their brain trust. Experienced people are retiring." Verbatim responses are included in Appendix B. A sampling of comments follows:

- *We have to pay three times as much as down south [for carpenters and skilled labor].*
- *It's hard to keep good people because my business is seasonal.*
- *It's hardest to find people that meet the Corps of Engineers' standards.*
- *Technicians with high-level security clearance. Geography is a challenge; we are based on the east coast.*
- *No level of position is easy to fill.*
- *In this industry, it's hard unless you get folks on early in the season. Mechanics and operators are the hardest to find.*
- *Operators for some specialized equipment can be hard to find.*
- *There is nowhere to train these people. All the people we hire are ex-military, they are the only ones that have the skill set we need.*

Barriers to Increased Defense Work in Alaska

Barriers to Increased Defense Work

The table below summarizes open-ended responses by key themes regarding barriers to vendors doing more defense work in Alaska, followed by brief descriptions and examples of each theme. A total of 146 vendors responded, with some vendors offering multiple responses. Verbatim responses are found in Appendix B.

- Nearly one-third of vendors (30%) reported no barriers to their doing more defense industry work in Alaska.
- Competition and procurement challenges were each mentioned by about one-quarter of vendors, followed by budget (i.e., defense spending), location/logistics, and staffing challenges with 10% or fewer citing each.

Barriers to Increased Defense Work in Alaska

Barrier	Count	% of total
No barriers	48	30%
Competition	38	24%
Procurement/requirements/information	32	22%
Availability of work/need higher budgets	16	10%
Location or logistics	15	9%
Staffing challenges	12	7%
Other responses	10	10%

Note: Percentages add to more than 100% due to vendors supplying multiple responses.

COMPETITION

Some vendors cited competition as the key barrier to their doing more Alaska defense work. Smaller Alaska vendors in particular tended to cite competition as a barrier, and some mentioned competition from large

vendors and vendors outside Alaska. Some said it is hard to compete with 8(a) companies. The federal government's 8(a) Business Development program is meant to level the playing field in federal contracting for small, disadvantaged businesses.² In 1986 Congress expanded the law to include Alaska Native Corporations (ANCs) and Indian tribes. Some vendors suggested ANCs' 8(a) status combined with their size and lobbying power makes it difficult for other Alaska businesses to compete. Other said small-business set-asides made it difficult for businesses not qualified as small businesses to compete. Some vendors said some companies low-ball prices to get work, then re-negotiate after being awarded a contract – or are unqualified to do the work. Vendor comments include:

- *Alaska Native Corporations tend to get more bid contracts because of their 8(a) status.*
- *Contracts are getting more competitive.*
- *[Military bases] only use a couple vendors consistently, and if you're not one of those vendors, you can't get the contract.*
- *DOD doesn't prioritize local businesses over global supply chains.*
- *We can't compete with 8(a)s. We can no longer bid on most contracts.*
- *So much of the work is small business set-aside, so we're precluded from contact opportunities, or have to get creative with teaming.*

PROCUREMENT/REQUIREMENTS/INFORMATION

Vendors cited as a barrier issues related to the complexity and amount of time DOD contracts entail, difficulties meeting requirements and certifications, difficulty finding out about opportunities, challenges working with contracting staff outside Alaska including a lack of understanding of Alaska conditions, and logistical difficulty getting on bases to meet contracting staff and inform them of vendor services and products. Comments include:

- *If I hire four guys to do the work, I have to hire two more just to do the paperwork.*
- *There's difficulty finding out about opportunities. ... It's a difficult web to navigate since most of the contracting shops are down south.*
- *There are communication issues and misunderstandings between "down south" DOD employees and Alaskan contractors.*
- *Smaller, local firms may not get the bid notices unless they are working with one of the DOD's prime contractors.*
- *Meeting government regulations is a challenge for us, especially paperwork, administrative challenges, EEO, safety requirements, and even Department of Transportation truck regulations.*
- *Procurement rules are there to make sure things are fair, but cause delays and cost overruns. Government is a great customer but they're also their own worst enemy.*

² See Title 13 §124 of the Code of Federal Regulations. https://www.ecfr.gov/cgi-bin/text-idx?SID=ee1595e6b78f39b1563ab8a8440bc7cc&mc=true&tpl=/ecfrbrowse/Title13/13cfr124_main_02.tpl

AVAILABILITY OF WORK/FEDERAL BUDGETS

Some vendors said increased federal defense spending and activity in Alaska is the primary way their contracting opportunities would increase. Vendor comments include:

- *There is lots of cleanup work out there, just not enough budget.*
- *It would be nice to have more defense opportunities in Southcentral Alaska.*
- *There is not enough maritime work available, particularly in Southeast Alaska.*

LOCATION/LOGISTICS

Some vendors said they are limited by their location, saying it is hard to do work in other areas of the state, or in the state as a whole. Some vendors said Alaska's remoteness and logistics of getting products to Alaska are challenging. Limited infrastructure is also a barrier for some vendors. Vendor comments include:

- *Logistics of getting products to Alaska [is a barrier].*
- *Main contracting office for Army Corps of Engineers is in Anchorage, we're in Fairbanks.*

STAFFING CHALLENGES

Some vendors said difficulty filling positions serves as a barrier, noting it is to find qualified workers. Vendors said it can be particularly hard to find staff for remote work, hard to find staff with certain qualifications such as security clearance, and hard to maintain a crew when work is sporadic.

- *We are limited by capacity. The work is available, but we must be selective because of limitations with manpower.*
- *The price to recruit and retain employees [is a barrier].*
- *Work is sporadic, so maintaining qualified staff without knowing when they will work next is difficult.*

Facilitating Increased Defense Industry Activity in Alaska

Vendors were read a list of four possible areas that might facilitate an increase in defense industry activity in Alaska and asked to offer additional ideas. Vendors who mentioned changes to policies and regulations were asked to specify the type of change. A total of 132 vendors provided a response. The most frequently mentioned suggestion to facilitate more business in Alaska was change in policies and regulations (63%), followed by workforce development (43%), availability of subcontractors (42%), and access to capital (32%). More than one-third (37%) of vendors mentioned other ideas.

Many suggestions mirror previously mentioned barriers including military spending and strategy, infrastructure, and competition. Several respondents (6%) noted that shifting geopolitical conditions – such as a rise in international hostilities – could result in more defense activity in Alaska. Multiple vendors suggested DOD simplify the procurement process, improve access to information about contracting opportunities, shift procurement decision-making to Alaska, and prioritize “true” small businesses or Alaska-based businesses. One vendor said, “The DOD has programs for small business, but the definition of ‘small’

is still big.” Multiple vendors mentioned education, and the importance of maintaining or strengthening training and education opportunities at the University of Alaska and other Alaska venues. Verbatim responses are found in Appendix B.

Ideas to Facilitate More Defense Work in Alaska

	Count	% of total
Changes in policies or regulations	83	63%
Workforce development	57	43%
Availability of local sub-contractors	56	42%
Access to capital	42	32%
Other suggestions	49	37%

Note: may not add to 100% due to multiple responses.

In general, vendor suggestions for facilitating increased defense activity in Alaska echoed their sentiments about barriers. A sampling of comments follows, by topic.

Increase arctic geopolitical focus:

- *Build more defense infrastructure up north – more ships, more vessels.*
- *More focus on defense in the Arctic would facilitate more spending.*

Change procurement policy and practice:

- *Change policy regarding purchasing via prime contractors. This forces us to have to partner with other entities to bid, so we are no longer doing much DOD business.*
- *Cut red tape, generally.*
- *Change the bidding process so the low bidder doesn’t necessarily get the contract. Other criteria in a bid are also important.*
- *Facilitate more in-state management of contracts. In-state management would lead to better communication, and understanding of local issues, etc.*
- *Procurement bundling creates a challenge because the total gets so high-dollar that it makes it hard to bond for it.*

Prioritize small and local business:

- *I would like more opportunities for woman-owned and true small businesses and HUBZone [certified businesses].*
- *Really put small business and local business first.*
- *Change DOD regulations specifically to help smaller businesses. Have more available project managers.*

Boost in-state education, training, and manufacturing:

- *Keep UAA and UAF having science degrees – especially engineering and geology.*
- *Training programs for skilled trades would be helpful. We would hire in Alaska, but can't find enough staff in trades and have to bring them up.*
- *More training in craft skills – expectations need to be raised for students, teachers, and parents.*
- *We would buy in Alaska if there were manufacturers. It's expensive to ship products to Alaska.*

Other Industries and Key Markets in Alaska

Vendors were asked what other markets and industries in Alaska they serve. Of the 145 vendors who responded, 16% reported they serve only the defense industry in Alaska. A significant majority of vendors (84%) reported at least one other key market in addition to the defense industry. The most frequently mentioned markets and industries are other federal agencies, state, and local municipalities (30%); construction (17%); oil and gas (17%); tourism (10%); and commercial fishing (9%). Some vendors listed multiple non-defense key markets. Verbatim responses are found in Appendix B.

Other Key Markets and Industries

	Count	% of total
Other Federal/State/local work	44	30%
Construction	25	17%
Oil/gas	24	17%
Tourism	14	10%
Commercial fishing	13	9%
Mining	10	7%
Transportation	8	6%
Healthcare	7	5%
Fuel distribution	3	2%
Education	3	2%
None	23	16%

Note: Percentages may not add to 100% due to multiple responses.

Key Informant Interviews

Interviews were conducted with a selection of military and civilian leaders with insights into Alaska's defense industry. Interviewees included current and retired military personnel, economic development and business group leaders, and local and state government officials. Although interview protocols were developed as guidelines, respondents were encouraged to provide any information they thought important to the study. Interviewees are listed alphabetically by last name.

- Shawn Anger, Vice Commander, 354th Fighter Wing, Eielson Air Force Base
- General Carrol H. "Howie" Chandler, U.S. Air Force (retired as Vice Chief of Staff); post-retirement private sector defense contract work
- Jim Dodson, President and CEO, Fairbanks Economic Development Corporation
- Taona Enriquez, Lt. Commander, 673rd Contracting Squadron, Joint Base Elmendorf-Richardson
- Matt Fagnani, Director, Division of Economic Development, Alaska Department of Commerce, Community and Economic Development
- M. McAllister "Cal" Gentry, Commander, 354th Contracting Squadron, Joint Base Elmendorf-Richardson
- Jeff Good, Commanding Officer, U.S. Coast Guard Station Kodiak
- Bill Huber, Vice Commander, Joint Base Elmendorf-Richardson (retired); post-retirement private sector defense contract work
- Marisa Sharrah, President and CEO, Greater Fairbanks Chamber of Commerce
- Chris Tew, Chief, Contracting Division, U.S. Army Corps of Engineers Alaska District
- Robert Daniel "Danny" Wallace, Chief, Plans, Analysis and Integration Office (PAIO), U.S. Army Garrison Alaska (Fort Wainwright)
- Bryce Ward, Mayor, Fairbanks North Star Borough

Following is a summary of key themes from the interviews.

Overall Alaska Business Climate

Overall, key stakeholders were divided on Alaska's current business environment, with slightly more than half assessing it as slightly strong or strong and the remainder calling it weak or slightly weak. Many noted that while defense industry investment is currently robust, the Alaska economy as a whole is vulnerable. "Outside the gate – nonmilitary – investment has been kind of low in construction in Alaska," one said.

Several pointed to the long-term decline in the oil industry and expressed a need for the state to adapt to changing conditions. Comments like the following reflect a mood of uncertainty about the economy and an overarching need to diversify:

- *I would say we're slightly strong but fragile, because we are continuously dependent on the price of mineral resources and we lack a tax base to run the state.*
- *I think there's a lot of decisions that need to be made over the next year or so – mainly by the Legislature – that will define where we're headed.*
- *It's rapidly changing. ... We haven't transitioned away from what has been the state's primary bread-and-butter [oil] fast enough.*
- *Alaska's economy is terribly under-diversified.*

One interviewee portrayed the decline in oil production as part of Alaska's cyclical economy. "The oil industry is slow, and the markets are fluctuating but I think that's what we've lived with for years up here so that's not anything new." Others were more bullish, at least about current economic conditions:

- *The business environment, in terms of what's available resource-wise, capability-wise and even product-wise, it's very good.*
- *Right now, even with the downturn, it seems like it's still a pretty good business climate in Alaska.*
- *We're able to award a lot of our contracts to Alaska businesses and I think that's a good indicator that the economy is moving along ok.*

Role of Defense Industry in the Economy

There was unanimity of opinion regarding the defense industry's importance to Alaska's economy, with virtually all stakeholders calling the industry very important. Many pointed out that the defense industry makes up about 30% of Fairbanks' economy, and several said they believe the industry comprises 16% to 20% of the economy statewide. Stakeholders said defense spending has helped cushion the blow of declining state capital budgets. Interviewees commented:

- *The military is very important, particularly in times like these where the last few years commercial investment on the part of the state has been contracting.*
- *Alaska needs to decide how much military it wants, and from my perspective it's one of the things that can help bring about a change and create a larger, stronger economy.*
- *I think it's a big part of the state in a very, very positive way.*
- *It's very important and the state needs to view this as an industry, not as a federal taxpayer response.*
- *Fairbanks would not be the town it is without the military. I think Anchorage would not be the town it is.*

Many interviewees noted the importance of two megaprojects – preparing for the arrival of F-35s to Eielson Air Force Base outside Fairbanks and the long-range missile defense system being built at Clear Air Force Base. Together the projects will inject more than \$1 billion into the Alaska economy. "That spiked the dollars compared to historic norms," one stakeholder noted.

One interviewee noted the importance of the people the defense industry brings: "We've got the largest per-capita population of [military] retirees up here, and I think that's an enormous impact and value. Military

retirees are highly skilled, highly educated personnel and they contribute to the strength of the community and the economy."

Future Expectations

Expectations of defense spending in the next several years vary, but a majority of interviewees foresee increased investment. Following the spike in spending associated with the F-35 and missile defense projects, some predict associated spending will revert to historic levels, while others see an increased baseline. One defense industry interviewee said, "There will be a lasting footprint – I think we're going to spike [in defense spending] and then it will drop and level out, still above [historic levels]." Another said, "We definitely see civilian job activity increasing because of the F-35s."

One interviewee commented: "We're going right back down to where we've historically been." Another defense stakeholder said the national defense budget would likely remain flat.

However, multiple stakeholders singled out Alaska's arctic location as an increasingly important strategic asset. They noted the opening of an arctic shipping passage spurred global interest in arctic resources, and that moves by China and Russia among others will demand U.S. response. Comments include:

- *America has been slow to react to it. ... We have one functional icebreaker; we have no ports near the Arctic. I think over the next ten years you're going to see a significant amount of growth.*
- *The Arctic is still gaining in importance for the U.S. military so I think we'll see continued investment in this area of the world.*
- *There's an enormous amount of attention being given to the Arctic and the Northwest passage and what that is going to do to the defense of the nation. Sen. Sullivan has gotten those two icebreakers approved and funded, and to bring those up we're going to need a deepwater port and that's just going to bring more expansion to the military and Department of Defense in Alaska."*
- *If we can get an active deepwater port in the state, I think DOD expansion and economic expansion will take place."*

Outside of possible arctic development, stakeholders did not foresee major buildups along the scale of the F-35 and missile defense projects, but multiple interviewees said there will be meaningful investment in upgrades and improvements at existing bases. One defense industry interviewee explained: "The character of the work is changing a little bit. It's going from these big programmatic efforts associated with major weapons systems to higher-volume if lower-value work on modernization and sustainability projects for our existing infrastructure. ... The character of the work is such that we might employ just as many people even if the dollars are lower."

A civilian stakeholder observed, "I believe the next wave of spending will look at things like modernization of the bases beyond increasing new divisions and new squadrons." Another stakeholder mentioned runway modernization at Eielson as an example of smaller projects expected in the future.

Another noted, “The F-35s get the most attention, but the Army has also had discussions on ways they’re potentially looking at growing in our community.” A defense industry stakeholder outside the Fairbanks area said, “We’re going to get a few more assets here, so at least in the local area it’s going to increase a little bit.”

Another potential source of growth is the KC-46 Pegasus aircraft, should they be based in Alaska. Three stakeholders mentioned possible growth associated with the new aircraft tankers, currently under production.³ Sen. Dan Sullivan and others are pushing to base the aircraft at Eielson Air Force Base. “We’re working on trying to get the KC-46’s here,” one stakeholder said.

Workforce Needs

There was significant variability in responses to how easy or difficult it is for defense contractors and suppliers to find qualified workforce in Alaska. As a whole, they perceived less of a challenge than the defense industry vendors interviewed for this study.

Key stakeholders’ observations include:

- *The higher the skill level, the more difficult it is.*
- *We pay a premium for construction up here in Alaska and some of that is probably bringing up qualified workers.*
- *A lot of our qualified workforce is transient.*
- *Being in a remote area, it’s difficult to bring people in due to the housing situation and the cost of living.*
- *Things up here are cyclic and right now we’re in a construction boom so I think there are some challenges in getting qualified craftsmen to meet the demand.*

One stakeholder distinguished between service jobs such as janitorial, childcare, and morale-welfare-recreation jobs compared to construction jobs, citing wage differences:

For service-related jobs, it appears there is some difficulty acquiring skilled personnel to do those types of jobs. They’re generally not Davis-Bacon or prevailing wage jobs. On the construction side, it seems the prevailing wage jobs seem to be filled pretty quickly.

Several interviewees discussed the importance of pacing projects to avoid gaps in availability of work that cause qualified workers to leave Alaska. “There’s a high need in the summer but that completely goes away,

³ According to a March 3, 2020 *Air Force Magazine* article, “KC-46 is a \$32 billion, 179-jet program expected to deliver aircraft into the late 2020s, after the Air Force received its first Pegasus more than a year behind schedule.” <https://www.airforcemag.com/goldfein-usaf-wont-use-kc-46-unless-it-has-to/>

so having jobs those guys can float to is important. ... How do you keep those folks employed so you have a steady workforce?"

Another said, "I think the industry has done a good job of workforce cadence so as projects finish for an electrician, that electrician goes to the next job. ... It's been done purposely because there aren't enough employees to work on these projects all at the same time."

One interviewee said there is not currently an acute labor shortage but expressed concern about the outlook. "We should be worried about the future of people interested in the trades, not only in Alaska but in the rest of the country. ... I don't know that it's a problem today, but I definitely think it's a problem tomorrow."

Alaska Assets

Defense industry stakeholders praised Alaska's level of support. Comments include:

- *I've never experienced anything but great support at any level of government and also within industry for the defense industry. ... From an industry standpoint, the architecture is very welcoming.*
- *It appears from my purview that what we ask for, we receive. I haven't seen the absolute, 'No, you will not do it.' This is an anomaly; it's not like that at every base.*
- *The state has done a lot.*
- *Businesses have done very well and are able to keep competitive and execute our mission.*

Specific strengths mentioned include training opportunities such as vast open spaces and a lack of flying-hour restrictions found elsewhere. "The vast size of the range is a huge attraction," said one military stakeholder. Another cited a "very friendly" tax environment. Others mentioned partnerships with industry, including the Associated General Contractors. Several mentioned schools and quality-of-life factors. "Here at Elmendorf Air Force Base we have great schools and have good ratings," one stakeholder said.

Ways to Encourage Defense Activity in Alaska

Stakeholders were asked to identify barriers to increased defense activity in Alaska, and conversely, ways to support increased defense activity in Alaska. Several themes emerged, roughly in the following order of frequency:

- Quality of life
- Professional licensure
- Promotion of Alaska's assets
- Community awareness of defense industry contributions
- Cost control

Also cited were partnerships, discussed in the section below on ways to support local contracting.

"When we make our communities friendly to the military, that reverberates throughout their networks in their units or squadrons or battalions," one stakeholder said.

A defense industry stakeholder said factors most military members consider in transfers are housing, jobs, and schools. "Where am I going to live, where is my [spouse] going to get a job, where are my kids going to go to school?"

Factors notably absent from mention were regulatory issues (apart from licensure). One defense industry stakeholder said: "I know of no obstructions in terms of local, state, or federal government to making Alaska an attractive place for the defense industry. In fact, I don't know of a place that's better."

Several said some factors are largely beyond Alaska's control, such as costs, geopolitical circumstances, and defense spending levels. One interviewee suggested that while there are major hurdles – such as high costs, small population, and fragmented land ownership – they are not insurmountable if there is enough drive for change. "Part of the problem is we just continue to do things the way we did them yesterday and that just doesn't work."

Quality of Life

Aspects of quality of life were mentioned more than any other as key factors in drawing defense dollars and personnel to Alaska. One defense industry stakeholder noted that the Secretary of the Air Force recently said any basing decisions will look at quality-of-life factors for military families. That's a change, the stakeholder said. Multiple stakeholders said quality-of-life factors are becoming an increasing part of the discussion among military families. In addition, one noted, military families have increasing say over where they will be stationed.

Key quality-of-life factors stakeholders raised are **school quality, health care availability, housing availability, cost of living, public safety, and air and water quality**. Comments include:

- *Schools and policies that dictate how we provide education can be an attractor or detractor. ... We need to promote policies that improve the quality of our K-12 education.*
- *When people get orders to come to Fairbanks, I've heard anecdotal information that people get super concerned about our school system.*
- *We need to make sure we have a top-notch education.*
- *Budget, location, and housing availability, at least in the remote areas, are probably the three biggest barriers.*
- *Folks are not able to be employed because they can't find appropriate child care for their young kids, either pre-K programs or before and after school.*
- *I've heard people concerned about bringing their female spouses up here because of crime, specifically related around sex crimes in Alaska. ... We've got some of the leading national statistics around suicide and other mental health and behavioral health and those issues surfaces quite often in the media. I do think those have a negative effect.*
- *Air quality in Fairbanks is a pretty big challenge that the military is having to address.*

Two stakeholders said health care is important for families with specialized health needs considering locating to a place where appropriate care may not be available locally. One stakeholder said small changes could improve military families' quality of life in Alaska, such as immediate qualification for resident fishing licenses and free access to state parks.

Several stakeholders noted that addressing quality-of-life issues has broader benefits:

- *These things would create a lot of impact across the board. Military is a natural driver for some of these conversations, but at the end of the day any of those changes we made would make life better for everyone.*
- *If we really wanted to make it better for everybody to live here, if we wanted to raise everybody's quality of life, we could find ways to do it just by changing the way we do things, changing the way we look at things, changing those things that we believe are essential to our livelihood.*

Professional Licensure

Multiple stakeholders on both the defense industry and civilian side mentioned the importance of professional licensure regulations, specifically making it easier for military spouses to be licensed in Alaska and making it easier for military retirees to convert their defense industry experience to professional licensure. A bill currently moving through the Alaska Legislature would streamline professional licensure, including providing 180-day temporary licenses to qualified individuals.⁴ "Something that simple allows a military spouse to go to work right away rather than sit at home while they wait to get scheduled for a test," said one stakeholder.

Another said more than 20 other states offer reciprocity in professional licensure, but Alaska has been slow to adopt such policies:

The military has said, "If you want military to be in your state, our military needs quality of life, and a job for their spouse is part of that." It's a big deal to them. And yet here we in the state of Alaska – where we don't have enough nurses, we don't have enough doctors, and we have to actually import them on a temporary basis to fill a slot – they want to restrict them. It's almost mind-boggling.

Another said:

It seems like a no-brainer that as a community we would support [reciprocal and temporary licensure] because we need nurses, we need hairdressers. A lot of those professionals that are coming here could go right to work instead of waiting four to six months to get what they need. It's difficult for the spouse or dependent that has to wait that long to begin to contribute economically to their household.

⁴Senate Bill 157 provides for temporary licensure but does not provide for licensure reciprocity with other states.
http://www.akleg.gov/basis/Bill/Detail/31?Root=sb157#tab5_4

Similarly, some suggested enabling military personnel to translate their military experience to civilian licensure, saying for example that someone who drove Class A vehicles (large commercial rigs) in the military should be able to receive a Class A commercial drivers license.

Promotion of Alaska's Assets

A key theme that emerged was the need for the state and Alaskans to promote Alaska as an ideal location for defense industry activity. While one stakeholder said budget considerations are the bottom line in defense decision-making, many acknowledged that defense decisions have a political component. "Don't think for a minute that wasn't a political choice," said one stakeholder of the decision to base the F-35s at Eielson.

Several credited Alaska's congressional delegation, past and present, for the strong defense industry presence in Alaska. Because of Alaska's small population and relatively small representation in Congress, one stakeholder noted, "We are very very reliant on our congressional delegation to be able to grow and expand this state – more than any other state."

Several interviewees suggested Alaska could and should do more to promote what it has to offer the defense industry. One noted that Alaska is well positioned to message itself as an ideal defense industry location given shifting defense focus to the Pacific and the Arctic: "The national defense strategy really provides all the leverage you need to attract the defense industry to Alaska. ... We're at a very convenient distance we can posture and train for."

Another said Alaska should actively leverage the arctic research and testing opportunities Alaska offers:

I think if we could get McDonnell Douglas or Boeing or some of these major industries to leverage the Arctic and learn in the Arctic and test in the Arctic, and use the University system research opportunities, the potential just become unlimited. I think we're allowing too much of that to go out to New England and the Northeast and not bringing it up here into Alaska.

That interviewee said having two fifth-generation fighter planes (F-22s and F-35s) offers a "phenomenal" opportunity to the Air Force and aerospace to study the Arctic. "Our conditions up here are just so unique and our space training opportunities are enormous – I don't think we've really marketed that and leveraged that."

Likewise, quality-of-life factors need to be effectively communicated. One interviewee noted that in addition to having good schools, "being able to showcase statistics" about school quality is important.

Another interviewee said Alaska does not do enough to promote its assets. "We just set back and twiddle our thumbs and hope something comes our way."

One stakeholder suggested Alaska should prepare to counter political backlash: "I believe our location makes us a prime location for the Department of Defense globally. But I believe at some point there could be a backlash: 'You guys are getting too much of the pie of federal-controlled dollars.'"

Community Awareness of Defense Industry Contributions

In addition to ensuring the defense industry is aware of Alaska's advantages, Alaskans need to understand what the defense industry brings, some suggested. Several said the military is an under-appreciated economic force in the state. "When you think of military as a contributor, it doesn't really get much press," one said. That stakeholder continued, "One of the reasons is the Alaska Department of Labor and Workforce Development doesn't count military as a job and yet military member contribute their dollars to the economy just like you and I do."

Another said of the defense industry in Alaska, "It's an industry, but I don't believe Alaskans see it as an industry with real economic implications to the communities in which they operate. In Fairbanks it's about 30% of the total economy. ... The military's going to go where they're welcome, not in states that don't appreciate the value they bring to the economy."

Cost Control

Cost is important, several interviewees said. "When you're a bean counter in the budget office, you look at the expense of Alaska bases and it really gets your attention. Any help with energy costs, that might make the bases less expensive to operate would be good. Any kind of public-private partnerships in terms of reducing costs would be helpful as well."

A military stakeholder said, "The cost of labor up here is significant. ... Making sure they're spending the taxpayers' dollars most efficiently is what procurement offices are concerned with."

Ways to Support Local Contracting

In addition to increased defense activity, Alaskans have an interest in ensuring defense dollars circulate in the economy through local sales and contracting. Defense and civilian interviewees all supported the goal of maximizing use of in-state vendors, and both sides acknowledged that the military contracting process can create challenges. Key suggestions to overcome these challenges are:

- Partnerships
- Outreach and simplification (defense side)
- Competitiveness (vendor side)

Partnerships

Stakeholders repeatedly cited the importance of partnerships – between the defense industry, government, local businesses, and education and training program institutions. Partnerships were cited as both a way to attract defense dollars and activity to Alaska, and as a means to ensure the local economy benefits from defense activity in Alaska.

Comments include:

- *We need to bring government together – local, state and federal – and also provide opportunities for major corporations in Alaska to participate in that.*
- *I think where we're most significantly lacking up here is in partnership. ... Business accelerator-type events – we need to keep that going.*
- *How do we get through to new companies? Maybe through the University, trade shows, industry groups, economic development groups. I think there are some opportunities there to really capitalize on that.*

One defense stakeholder mentioned a “collider” event initially scheduled for April 2020 (postponed due to COVID-19) to bring together the defense industry and potential new and nontraditional vendors. Partners in the event include JBER, AFWERX,⁵ UAA, and the Chamber, according to the stakeholder, who said the idea is to “invite contractors to come out, find opportunities, and share with them the needs we have and start dialogs on how they can meet up, how to bid, and bring opportunities from lower-48 companies looking to expand and partner with locals up here.”

Several stakeholders mentioned the need for a robust research partner and the potential role of the University of Alaska. “Building in the Arctic is going to require huge expertise that is yet to be developed,” one stakeholder said. “That kind of research needs to be done at our university.”

Defense Industry Outreach and Procurement Simplification

Newcomers are an asset, one defense stakeholder said. “The best thing with new eyes and fresh eyes is they see things a little differently.” But military interviewees acknowledged the difficulties smaller and new businesses face in breaking into the defense contracting market. Defense industry comments include:

- *We are painful to get into. We don't make it easy. ... The small business offices are in my opinion, are very bureaucratic. There's a reason we lose out on these nontraditional vendors. We'll do an outreach event but we don't speak English so they don't know what we're talking about.*
- *We've recognized the need and the Air Force has said, 'How can we un-complicate contracting?' Because it's so scary no one wants to touch us.*
- *A lot of folks – especially in good times – they see the military as a lot of bureaucracy and stay out of that avenue.*

⁵AFWERX describes itself as “a community of Air Force innovators who strive to connect Airmen to solutions across the force: whether that be funding, collaborating with industry, or simply receiving guidance on a project.” <https://www.afwerx.af.mil>

- *We may not be able to fill those jobs [resulting from F-35 and long-range missile defense expansions] with qualified Alaskans if we don't improve how we communicate the openings for those jobs.*

Military stakeholders noted several efforts to overcome these hurdles, including

- Business accelerator and “collider” events as mentioned above.
- Alaska PTAC, a technical assistance program to help nontraditional vendors navigate the defense industry procurement process.⁶
- Breaking large projects into smaller projects more manageable for smaller vendors. This was done intentionally with the F-35s and long-range missile projects to spread the benefits, one defense stakeholder said.
- Pilot programs such as Commercial Solutions Opening, which waives formal solicitations for innovative commercial technologies.⁷ “We’ve tried to spread the word but most of the proposals we’ve seen are from companies that aren’t in Alaska,” noted a defense stakeholder.
- Exceptions and authorities under various socioeconomic programs that allow for negotiated contracts in place of traditional procurement processes.

A civilian stakeholder suggested, “If there was a mechanism to qualify Alaska businesses to be on that list of qualified defense industry vendors, that may encourage more local buying.”

Vendor Competitiveness

Military and non-military stakeholders suggested Alaska businesses can become more competitive by studying the market, studying the defense procurement process, and competing on cost and quality. Comments include:

- *I think there's a huge opportunity for Alaska defense contractors to jump in and to find opportunities by studying the market and how to become a part of it.*
- *You look at supply chain mapping: 'What does the industry buy and what do I sell?' We should really be paying attention to, 'Where can we take this cash flow and apply it to our economy?'*
- *Companies that are aligned and DOD-friendly when it comes to the procurement process find themselves on the receiving end of a lot of those contracts.*
- *We [defense industry] survey the market, and at the end of the day we decide based on price and qualifications and past performance. ... We endorse previous success.*

Competitiveness is a factor within the state as well. One military interviewee said advocates in some areas want the defense industry to do more contracting locally. “We can’t favor geography within the state like they would like.”

⁶Alaska’s Procurement Technical Assistance Center (PTAC) “provides businesses with the training and tools needed to compete and perform successfully on federal, state, and local government contracts.” <https://ptacalaska.org/about/summary/>

⁷AcqNotes describes the program as follows: “Commercial Solutions Opening (CSO) is a merit-based source selection strategy for the Department of Defense to acquire innovative commercial items, technologies or services that directly fulfill requirements, close capability gaps, or provide potential technological advances. It’s focused on businesses or institutions that have not traditionally done business with the U.S. Government.” <http://acqnotes.com/acqnote/careerfields/commercial-solutions-opening>

Meeting the Challenges of the Future

Several stakeholders observed that to meet the challenges of the future, Alaska needs to become more agile, innovative, and open to new industries. Comments include:

- *During these times of crisis and change, he who gets there first and figures out what the new normal looks like, they're the ones that are going to succeed. ... Quite frankly I think it's what we need in Alaska, an agility that we haven't seen in the past.*
- *Part of the problem is we just continue to do things the way we did them yesterday, and that just doesn't work. ... We mentally can't get over that boom and bust cycle.*

Multiple stakeholders observed that the defense industry can play a key role in strengthening Alaska's future, especially if government, private industry, and educational institutions work together to develop Alaska's infrastructure, human capital, and research capacity.

Appendix A: Alaska Defense Contractor Survey

Hi, this is _____ with McDowell Group. We are conducting a study for the University of Alaska regarding defense spending in Alaska. We are calling your business because you are listed as having provided goods or services to the United States Armed forces, Department of Defense, or Department of Homeland Security including the U.S. Coast Guard in Alaska at some point over the last 10 years. **Can I speak to someone who can help me answer a few questions about your defense industry projects or sales in Alaska?** [if the right person **The purpose of this study is to find ways to generate more defense industry spending in Alaska** then go to read before Q1.]

[Once we get the right person]

Record Name and Title _____

Hi this is _____ with McDowell Group. We are conducting a study for the University of Alaska regarding defense spending in Alaska. We are calling your business because you are listed as having provided goods or services to the United States Armed forces, Department of Defense, or Department of Homeland Security including the U.S. Coast Guard in Alaska at some point over the last 10 years. **The purpose of this study is to find ways to generate more defense industry spending in Alaska.** I would like to ask you a few questions regarding your defense industry work in Alaska. [We may need to mention years and budgets]

First, I would like to ask a couple questions about your projects or sales in Alaska and staffing.

1. About how many full-time equivalent (FTE) people do you currently employ in Alaska?

_____ # Zero (skip to Q3)

- a. Don't know
- b. Refused

2. Of your total Alaska staff, about how many full-time equivalent (FTE) people currently work on defense industry projects or sales in Alaska?

_____ # Zero

- a. Don't know
- b. Refused

3. Over the past decade, what was the approximate peak number of full- and part-time people you employed at one time in Alaska for defense industry projects or sales? (may need to dig for details)

_____ # Get FTE if possible, if not get count

- a. Don't know
- b. Refused

4. Over the last three years, can you estimate, on average, what percent of your total global employees worked on projects or sales resulting from the defense industry in Alaska? (skip this Q if no work in AK last three years)

_____ #

- a. Don't know
- b. Refused

5. Can you estimate what percentage of your organization's total gross global revenue came from defense industry work in Alaska over the last decade?

_____ %

- a. Don't know
- b. Refused

6. About how many years has your firm provided goods or services to the defense industry in Alaska?

_____ years

- a. Don't know
- b. Refused

7. Overall, would you say the current business climate in Alaska is very strong, slightly strong, slightly weak, very weak, or neither strong nor weak?

- | | |
|----------------------------|---------------|
| 1. Very strong | 5. Very weak |
| 2. Slightly strong | 6. Don't know |
| 3. Neither strong nor weak | 7. Refused |
| 4. Slightly weak | |

8. Overall, do you think the defense industry is very important, somewhat important, or not that important to Alaska's economy?

- | | |
|-----------------------|---------------|
| 1. Very important | 4. Don't know |
| 2. Somewhat important | 5. Refused |
| 3. Not that important | |

9. Overall, do you think the defense industry in Alaska will fare much better, slightly better, slightly worse, much worse, or remain unchanged over the next few years?

- | | |
|--------------------|---------------------|
| 1. Much better | 4. Much worse |
| 2. Slightly better | 5. Remain unchanged |
| 3. Slightly worse | 6. Don't know |
| 7. Refused | |

10. Over the next few years, do you anticipate that your company's revenue from the defense industry in Alaska will significantly increase, slightly increase, slightly decrease, significantly decrease, or remain unchanged?

- | | |
|-------------------------|---------------|
| 1. Significant increase | 5. No change |
| 2. Slight increase | 6. Don't know |
| 3. Slight decrease | 7. Refused |
| 4. Significant decrease | |

11. Over the next few years do you anticipate hiring significantly more staff, slightly more staff, slightly reducing staff, significantly reducing staff, or no change in staffing related to defense industry work in Alaska?

- | | |
|--------------------------|---------------|
| 1. Significantly more | 5. No change |
| 2. Slightly more | 6. Don't know |
| 3. Slight reduction | 7. Refused |
| 4. Significant reduction | |

12. Do you find it very difficult, somewhat difficult, or not difficult to hire qualified staff for defense industry work in Alaska?

- | | |
|-----------------------|---------------|
| 1. Very difficult | 4. Don't know |
| 2. Somewhat difficult | 5. Refused |
| 3. Not difficult | |

12a. Please tell me if you think each of the following skill levels are very difficult, somewhat difficult, or not difficult to find qualified workers in Alaska? (circle response)

1. Entry level workforce (very difficult, somewhat difficult, not difficult, DK, NA)
2. Skilled labor (very difficult, somewhat difficult, not difficult, DK, NA)
3. Professional/technical workforce (very difficult, somewhat difficult, not difficult, DK, NA)
4. Executive level staff (very difficult, somewhat difficult, not difficult, DK, NA)

Note: Skilled would be equipment operators, journeyman plumbers, etc. voc/tech type jobs, trained and experienced but job typically does not require a Bachelors or higher degree. Professional/technical would be college degree-type jobs.

12b. Are there specific jobs that are hardest for you to fill?

13. Can you tell me if there are any barriers to your company doing more defense industry work in Alaska?

14. Please tell me if you think any of the following would facilitate an increase in defense industry activity in Alaska. (Read, check all that apply, probe for anything else)

1. Workforce development training programs
2. Access to capital
3. Changes in DOD, United States Armed Forces, or Department of Homeland Security policies or regulations (specifically_____)
4. Availability of qualified local sub-contractors
5. Anything else _____

15. In addition to defense, what other industries in Alaska are key markets for your organization? (may need to probe) a. None b. Don't know

Appendix B: Alaska Defense Contractor Open Responses

Following are verbatim responses to open survey questions. Responses are sorted alphabetically; one-word "no" or "none" responses have been removed.

Q12b. Most Difficult Jobs to Fill

- Accounting, project managers, safety managers, quality control. Businesses, state, and federal agencies in Alaska are losing their brain trust. Experienced people are retiring. It's a challenge to find qualified people.
- All are hard, but technical jobs very hard. (electricians, fire alarm technicians, electronic security with 4 years of experience). To solve this problem, we "groom" our entry level staff to become their technical force, but then it's hard because entry level options often have zero skills, and no desire to learn more.
- All challenging, management requirements.
- All jobs are hard to fill.
- All levels – management to admin and field work.
- All of them. Trying to find qualified workers in Ketchikan with the shipyard skills we need is challenging.
- Anything trades related.
- Based in Florida. We send staff to Alaska (travel status), and then hire subcontractors to complete the work.
- CA-based company. We fly workers to Alaska when contracts are available. Need for millwright positions.
- Carpenters and skilled labor. We have to pay three times as much as down south.
- Carpenters.
- Certified occupational therapy assistant.
- Certified pesticide applicators (for invasive plants, for example).
- Cleared technical resources, i.e., people with top-secret clearance for positions like cybersecurity.
- Clinicians, pharmacists, ER doctors, radiologists, surgeons, nurses (*very hard to find*), and any higher-level medical positions.
- Coders (medical, in- and outpatient, ambulance, and emergency department coders), clinical documentation specialists, medical records technicians.
- Computer-related, job-related.

- Craft trades-carpenters, plumbers, etc. Equipment operators.
- Cyber security people (IT).
- Degreed professionals, engineers.
- Director level position.
- Drillers.
- Electrical and computer engineers.
- Electricians, qualified mechanics.
- Engineering – or when specific skillset is needed, depends on project.
- Engineering, accounting, operations/management.
- Engineers.
- Entry-level hiring is usually the hardest. Based on the education system, and the number of folks that are interested in technical work after graduating.
- Environmental services technicians. We do really remote field work. They need to be able to spend time in Adak or on the north slope.
- Equipment operators.
- Estimating.
- Executive level positions and skilled workers.
- Executive level staff. CFO and finance people, fundraising positions, marketing, and senior-level scientists.
- Executive level.
- Experience in aerospace industry.
- Experienced people.
- Experienced project managers.
- Facility management staff. Also, certified cooks. And, finding people who can pass a background check.
- Field leadership.
- Field staff, field archeology studies. Most folks don't want to camp out to do archeology studies in Alaska all summer.
- Finance director, engineers, wastewater engineers.
- Foremen or supervisors.
- Good heavy equipment operators.
- Hard time finding guys who want to work.

- Hard to find someone with ground skills/experience who understands construction and excavating, and who has management skills. The University offers a construction management degree, but the person may have no experience with the skills involved.
- Hard to keep good people because my business is seasonal.
- Hardest to find people that meet the Corps of Engineers' standards.
- Heavy equipment operators.
- High-end IT folks are very hard to find, especially those with top-secret clearance.
- Highly tailored engineering positions.
- Hiring in Nome is difficult at all levels for all jobs. Hiring in Anchorage is much easier.
- In this industry, it's hard unless you get folks on early in the season. Mechanics and operators are the hardest to find.
- Information technology.
- Journeyman carpenter.
- Journeyman. People who are experienced and seasoned. Have trouble shooting capabilities.
- Labor.
- Labor.
- Licensed architects.
- Licensed, experienced engineers, and architects, since these are degreed professionals, generally.
- Linemen, diesel mechanics.
- Linemen.
- Low turnover, not an issue for us.
- Mates (maritime).
- Mechanics (especially heavy diesel equipment), shop managers, and salesman.
- Mechanics, maintenance, and truck drivers.
- Mid to senior engineers. Project managers.
- Military training can be difficult. The challenge would be if the federal government wanted additional training or certifications. Especially hazardous waste training.
- Millwrights, pipe fitters, boiler makers.
- N/A – All of our employees fly up from Oregon.
- No response (we hire and train/develop people).
- No, all moderately easy to hire.
- None – Alaska has a lot of skilled workers.
- None – we don't have high turnover and hire good employees from the start.

- None specifically, all are hard to fill.
- Not specific, but it was difficult maintaining staffing levels.
- Office staff and project managers.
- Our Alaska workforce was entirely subcontractors, and we had no problem obtaining any subcontractors.
- Our work is unique, marine contracting. Operators for some specialized equipment can be hard to find. We hire through unions.
- Pilots.
- Pilots.
- Pilots.
- Professional and technical level staff.
- Professional construction trades.
- Professional engineers.
- Professional/technical jobs.
- Project manager.
- Project managers, drillers.
- Project managers, finding good ones is tough. Often, the good ones are on another project before we can hire them.
- Project managers, tradespeople, quality control people.
- Psychologists and family practice doctors.
- Qualified pilots and mechanics.
- Quality control and safety staff. We need both for every project.
- Quality control managers.
- Quality control managers.
- Quality control positions. Safety manager positions.
- Railroad-specific work.
- Registered architects with 10 years of experience. Senior project managers with 10-15 years of experience. Entry-level designers and interior designers, we currently recruit from down south.
- Remote workers.
- Remote workers.
- Rural vs. Urban. No problems finding people in Juneau, Anchorage, Fairbanks (plenty of qualified workers in large cities). Rural areas are hard to recruit for, but we have had no difficulty.
- Sales positions (hard to learn fire regulations).

- Senior level.
- Senior-level project management and estimating.
- Skilled carpenters.
- Skilled labor (electricians, plumbers, etc.) Skilled equipment operators.
- Skilled labor.
- Skilled technical personal with a radiofrequency background.
- STEM Jobs.
- Superintendents, foremen, business development professionals for federal work, specifically.
- Technical engineers.
- Technical jobs having to do with machinery.
- Technical positions.
- Technical, financial, and IT, especially cybersecurity.
- Technical, of any kind. No level of position is easy to fill. We're currently trying to hire a receptionist, and we can't find a qualified person. People are leaving Alaska, so not so many good people here looking for jobs.
- Technical, skilled labor.
- Technicians with high-level security clearance. Geography is a challenge; we are based on the east coast.
- The more advanced professional positions.
- Trades-licensed carpenters, electricians, etc.
- Upper-level management. Because we are a unique, small company we usually hire within.
- We have seasoned veterans (i.e. experienced workers).
- We have some very specific skill requirements for technical folks. Precision measurements of equipment. There is nowhere to train these people. All the people we hire are ex-military, they are the only ones that have the skill set we need. We are trying to use in-house apprentices, but it's challenging. Hiring ex-military is really not a barrier, there are enough available.
- Welders.
- Writers.

Q13 Barriers to Increased Defense Work

- 8(a) companies.
- 8(a) set aside for government contracts.
- All the work was completed by subcontractors, and the "strength" in subcontractors was there.
- Allowing outside companies to take contracts from local competitors.

- Alaska Native 8(a)'s get such good deals that the DOD won't look anywhere else. ANC 8(a)s do not share any work, even with their own shareholders who own companies.
- Alaska Native Corporations located in Alaska. 8(a) programs.
- Available contracts with the King Salmon Airforce Base.
- Availability of opportunities.
- Availability of work.
- Availability of work being offered.
- Barriers for this business include that Alaska Native Corporations tend to get more bid contracts because of their 8(a) status. Issues with big corporations getting the whole contracts.
- Bassett Army Hospital used to be able to source locally, but now the locals must be subcontractors of a bigger contract, so a percentage of money is going to another company outside of Alaska.
- Biggest barrier with doing any work for the government is the amount of paperwork to do the job – if I hire four guys to do the work, I have to hire two more just to do the paperwork.
- Bonding criteria.
- Can be difficult to meet all requirements for doing construction projects in Interior or Northern Alaska.
- Cannot think of any.
- Can't compete with 8(a) companies. Also, government contracting processes can be very slow. It's hard for organizations to keep tempo with that slower speed.
- Competing with 8(a)s.
- Competition.
- Competition.
- Competition from Alaska Native Corporations. They have almost exclusive access through 8(a).
- Competition from other local contractors is always there.
- Competition is a barrier. We can't compete with 8(a)s. We can no longer bid on most contracts.
- Competition with ANCs. It's hard to find the work. We used to find it on FBO (Federal Business Operations). It seems harder to find now.
- Competitive nature of the work. There is less work to be done now.
- Contracting mechanisms: Indefinite Delivery, Indefinite Quantity (IDIQs) – if you don't get contract, you're "out" for four years.
- Contracts are getting more competitive.
- Depends on Navy activity.
- Depends on what is driving the contract. Often, we are hired as a subcontractor, not as a prime. Depends on the work and what the qualifications are.

- There's difficulty finding out about opportunities, a lot of buying is done in lower 48, and that affects Alaska. It's a difficult web to navigate since most of the contracting shops are down south.
- DOD doesn't always have the most qualified workforce on the contracting side, so private industry outpaces government, which means that private industry will have to "wait."
- DOD is very complex. We must follow rules, but the government does not always follow the rules, which creates risk for us. Difficulty finding the right contact in Alaska.
- We prefer to hire a Colorado State University research arm, so we can't get work near Fairbanks.
- Federal spending and state business contracts.
- Finding qualified people.
- Finding skilled labor.
- For the most part, we pick and choose what we go after. It would be nice to have more defense opportunities in Southcentral Alaska.
- Geography, that and we are limited by jurisdiction.
- Getting information about what jobs to bid. Smaller, local firms may not get the bid notices unless they are working with one of the DOD's prime contractors.
- Getting on base, getting in contact with the right people to sell our product to.
- Getting your foot in the door. 8(a) status is vital.
- Government spending. More federal dollars equal more work.
- It's hard to fill positions, logistically very difficult.
- Having the right scientists for the job. We hire scientists, and they go find the work they want rather than finding work and then hiring scientists.
- Hiring for remote work.
- The small size of my business makes getting jobs limiting. I don't go beyond our ability to deliver quality.
- Increased competition in a declining market.
- Infrastructure in Alaska. There aren't enough large-vessel haul-out locations where we can work on ships.
- It's a highly competitive market.
- Labor (workforce). Work is sporadic, so maintaining qualified staff without knowing when they will work next is difficult. We're competing nationally with other companies to attract a qualified workforce.
- Labor issues due to seasonality of the work. We must keep full-time employees on through winter with no work. If not, those skilled workers wouldn't stay.
- Lack of opportunities, and highly competitive nature of the work

- Lack of transparency regarding the future on-base work. We don't get notice until October for the next year. Then we have no idea what's further out after that. It's hard for us to plan.
- Length of time that contracting mechanisms take, and preference for small-business set-asides.
- Limited opportunities due to 5-year renewals for those who hold contract to do pool maintenance on base.
- Limited to the Dillingham area.
- Location.
- Location.
- Location.
- Logistics of getting products to Alaska.
- Main contracting office for Army Corps of Engineers is in Anchorage, we're in Fairbanks.
- Major barrier: DOD doesn't prioritize local businesses over global supply chains.
- Meeting government regulations is a challenge for us, especially paperwork, administrative challenges, EEO, safety requirements, and even Department of Transportation truck regulations.
- Military bases especially will use the same contractors repeatedly. They only use a couple vendors consistently, and if you're not one of those vendors, you can't get the contract.
- Nature of our company because we do very specialized work.
- NC Machinery keeps beating us on getting contracts.
- No, we do inspections related to fire towers. Everyone flies up from Oregon to do the inspections.
- No barriers. We work through Source America to get contracts.
- No barriers. Our growth depends on our company's acquisition of more aircraft and hiring more people.
- No barriers, really. We follow the rules and regulations. As an ANC, DOD is good to work with. We have capacity and do the work quickly.
- No real barriers, just lots of competition for the work.
- No barriers. We only do part 135 charters.
- None. We are unique, niche market without competition in Alaska.
- None – we'd take any opportunities.
- None – we're specialized, doing as much work as is available.
- Not being an 8(a).
- Only barrier is what contracts become available. They cannot bid unless there is a contract to bid on.

- Out-of-state contract management is a barrier. We have no understanding the conditions and challenges working in Alaska brings. There are communication issues and misunderstandings between “down south” DOD employees and Alaskan contractors.
- Personnel available, number of staff.
- Politics.
- The price to recruit and retain employees. We are incentivizing people to come to work and live in Alaska to avoid per diem and housing costs related to long-term, temporary projects. Costs would be less for DOD and contractors if they can offer full compensation packages for employees with a good fit, less turnover in staff, etc.
- Procurement process. There are restrictions on large environmental projects, and this makes it hard for us to compete as a prime contractor. There are disadvantages to being subcontractor.
- QC and management requirements from the Corps of Engineers.
- Qualified people, and competition from big out-of-state government contractors.
- Remoteness of Alaska, we are on the East Coast. We were not well received by locals and lost money; we did not feel welcome.
- Size of federal budgets. There is lots of cleanup work out there, just not enough budget.
- Skilled labor and national spending.
- Small business, but we have 8(a) advantage. Overall, the corporation is changing directions, and decided to move away from defense industry work for now.
- Small business, so once our time is booked, that’s it. We can’t grow our business for hiring more staff. Older business. We, the owners, are looking to retire.
- So much of the work is small business set-aside, so we’re precluded from contract opportunities, or have to get creative with teaming.
- Spending gets set aside for small businesses, but they are competing against large Alaska Native Corporation 8(a)s.
- Stupid bidders! This is was a company that is desperate for work, significantly underbids a job, and wins. We are not going to try and compete with that. Often, they can’t complete the work. It can be a mess. They sometimes get changes or modifications when everyone realizes they can't do the work. This props up weak companies.
- The Army & Air Force used to do smaller contracts, but now clump environmental contracts into one large one so it is difficult for a small firm to bid.
- The entity itself. Communication, getting jobs is a very difficult process. I had to get many certifications just for one job (woman-owned, small business, HUBZone, disadvantaged business enterprise, etc.)
- The main barrier is that we are no longer considered a small business. We will not be able to bid for this work in the future. We will have no presence in Alaska when our contract expires.

- The only real barrier is competition, particularly from Anchorage-based companies. We are somewhat remote being in Southeast [Alaska].
- There are some technical barriers regarding HUBZone and 8(a) work. We are running out of NAICS codes that would allow us to expand into a variety of other work.
- There is not enough maritime work available, particularly in Southeast Alaska.
- We are limited by capacity. The work is available, but we must be selective because of limitations with manpower.
- We have base stores in Alaska that are the go-to for 99% of spending. I believe that's awarded to Office Depot. That money doesn't stay in Alaska.
- Too many projects going to 8(a) status companies.
- U.S. government bureaucracy. Procurement rules are there to make sure things are fair, but cause delays and cost overruns. Government is a great customer but they're also their own worst enemy.
- Unfair competition with big telecom companies.
- Volume of work is down and there is more competition for what's there.
- We are not willing to travel beyond JBER for work.
- Weak past project experience, no specific professional designation (ex. small business, women-owned business, etc.)
- Work is dependent on which contracts DOD releases for bids.

Q14 Suggestions to Facilitate Increased Defense Contracting Opportunities

- A conflict, like a war. Then, there would be a need for training, mobilizing and outfitting troops.
- A little difficult to get those jobs - FBO doesn't seem as good as the site used to be, maybe ANCs are getting the jobs. It's harder for my size of business to find those jobs.
- A war.
- Access to capital is biggest issue, then policies – I would like more opportunities for woman-owned and true small businesses and HUBZone.
- ACOE contracting office in Fairbanks. Increased defense spending.
- Although we are a small company, we can't go after projects as a small business because we are owned by a larger company.
- An increase in international relations tension.
- As we become a more global society, if Homeland Security develops stronger presence here in Alaska, instead of Washington State, for example.
- Better access to the bases.
- Better use of small business programs to partner with Alaska Native Corporations to build the projects we need in Alaska.

- Bigger DOD budgets. More ships, more vessels. Build more defense infrastructure up north.
- Change policy regarding purchasing via prime contractors. This forces us to have to partner with other entities to bid, so we are no longer doing much DOD business. We need competent leadership across the board, it's holistic challenge. Increasing business in the government space isn't a holistic question. Need to increase the entire business climate as we cannot invest in a growing DOD – it needs to be part of overall business growth.
- Change regulations regarding small business set-asides.
- Change regulations that are red tape. It's slowing down housing projects that have a short window for building
- Changed in DoD regulations specifically to help smaller businesses. Having more available project managers.
- Changes in defense industry regulations, specifically getting on base, passes, and general administrative challenges.
- Changes in defense industry regulations, specifically, the way they purchase goods and services. Better product knowledge, knowing what's available. Issues with federal business operations.
- Changes in defense industry requirements, specifically QC requirements, modernizing technical specifications, and procurement (Simplify and update)
- Changes in federal funding. Maybe workforce training would help.
- Changes in federal missions/goals/priorities.
- Changes in international relations.
- Changes to the bidding process so that the low bidder doesn't necessarily get the contract. Other criteria in a bid are also important.
- Comes down to the federal government. Federal agencies need to release more funding for projects.
- Consistency in appropriations for DOD projects without funding being redirected.
- Contracting changes, specifically reducing small-business set-asides. Keep UAA and UAF having science degrees – especially engineering and geology.
- Contracting should be easier for small businesses. Apprenticeship training programs for small business from the federal government and not just unions. Easier programs for training apprentices through the universities.
- Current versus future administrations. After the election cycle, what be the focus? It will depend on priorities of the incoming administration.
- Cut red tape, generally.
- Defense work is program-based. They bring in a striker brigade, and there is a need for hangers housing and training facilities. We used to do some of this work. Then 8(a)s came and started taking most of the work. They can get working quickly and procurement is easier. We are excluded

from a lot of military work that we could be doing. We remade our company and now we do 100% private work. We can compete in that market. We don't even look at DOD work anymore.

- DOD policies are always changing, but it's tailored to the DOD broadly. The policy changes aren't at a local level.
- DOD should prioritize the development of deep-water ports near Nome/Kotzebue. As cap ice melts, there is more ship traffic there. Port(s) are needed, and would provide jobs, fueling, support, etc. Not currently viable commercially but would greatly support industry up north. Also, Space Force/Space Industry opportunities in AK (rockets, radars). Additionally, rebuild Port of Anchorage.
- Don't clump small projects together to create a larger project for a bid.
- Don't give ANCs preference.
- Economic climate.
- Education is #1. Regulations add a level of difficulty, depends on the project. Finding labor with the right skillset is very challenging, especially on recent statewide project on satellite-based communications system. There is not a lot of base to select from, and if someone is qualified, they may not want to relocate. The pickings are kind of slim.
- FAA (they couldn't site a specific regulation).
- Facilitate more in-state management of the contracts. In-state management would lead to better communication, and understanding of local issues, etc.
- Federal government money to buy more boats for us to fix.
- For the most part, the industry is centered around the big bases. Not sure what policies could be implemented to increase activity around the state.
- Geopolitical decisions (e.g., Russian Navy using Alaska ports).
- Geopolitical-strategic-tactical level decisions. What will move the needle is geopolitics re: Korea, Russia, and China.
- Having a 3-year plan so that we have some idea what the future looks like. Training programs for skilled trades would be helpful. We would hire in Alaska, but can't find enough staff in trades and have to bring them up.
- I hear the new regulations "809" panel has heavy bias toward large defense contractors. It will make it more difficult for small businesses like ours. Also, cybersecurity requirements are escalating along with the cost of compliance, which will make it much more difficult for us. I would like DOD to empower its Alaska commanders to obligate the government. Since everything is in DC, it's impossible unless you hire a high-power DC consultant.
- I would think all of these would have potential to help Alaska.
- If the Navy and Coast Guard establish a presence in Western and Northern Alaska there would be a large amount of work available.
- Increase defense spending.

- Increased in number of people stationed in Alaska, increased troop presence in AK.
- It would help if DOD focused more on using Alaska companies for Alaska work. We have the qualifications, and they keep awarding to outside companies. We need defense in Alaska since we are close to Russia. We need better ports and better/more defense infrastructure overall.
- It's mostly related to federal budgets and projects in the pipeline. More budget, more projects.
- It's not a problem for us, but I know that companies that have not been around as long as we have can have trouble with "best value" contracts. It's hard to win if you don't have a track record.
- It's a pretty level playing field.
- Keep contracts local and direct, not a part of an outside contract.
- Hire Alaska companies. It's difficult when someone bids a project and they're not planning to do it for that price, they underbid the competition, then do change orders. It's frustrating. We put in things that are necessary but may not be specifically required but after change orders the winning contractor's price is higher than ours for the same deliverables.
- Larger DOD budgets would help. There are plenty of projects, but they don't get funded.
- Less regulation – currently it's so strict, costly, complicated.
- Make it easier (less paperwork and simpler rules).
- More defense spending in AK.
- More direct federal awards and more awards favoring small businesses.
- More focus on defense in arctic would facilitate more spending.
- More money on the federal side.
- More policies and regulations to address global warming and climate change and Arctic conditions. Build out infrastructure for ocean science studies.
- More training in craft skills – expectations need to be raised for students, teachers, and parents.
- Need changes and/or more commitment on Arctic policies and infrastructure. We need more ports and more defense presence. There has been lots of talk, but action is slow.
- North Korea firing off a missile.
- Our relationship with Russia, since Alaska is close, it impacts amount of spending.
- Overall, work in Alaska is driven by the "mission." If it's part of a desired mission, then the projects get funded.
- Policy or regulatory changes to energy standards and requirements, i.e. LEED certification, and environmental regulations.
- Procurement bundling creates a challenge because the total gets so high-dollar that it makes it hard to bond for it.
- Procurement is too complex. Bidding and contracts are very onerous.

- Really put small business and local business first.
- Regulations are always changing. Too much change has huge impact on ability to fulfill the contract requirements.
- Regulations are constantly changing. More consistency, in terms of permitting requirements, would be helpful.
- Regulatory changes affect types of jobs that are available. Changes in defense industry regulations, especially environmental regulations.
- Regulatory changes to the 8(a) program. We are not an 8(a) company, we assume this means less preference for 8(a)'s. Larger budgets and projects from the federal government.
- Scheduling for fuel delivery.
- Specifically, overbearing regulations, they can be restrictive.
- Spend more on military facilities in AK
- Spending and policy priorities at federal level, e.g. F-22s.
- Stay away from 8(a) preference.
- Stronger university.
- Supporting more small businesses and women-owned businesses. Put women-owned businesses on a level playing field with service disabled, veteran owned, or 8(a) businesses.
- The DOD has programs for small business, but the definition of "small" is still big. Some jobs require that our company have a safety plan, which takes time to create. We can work with a consultant to develop the required plans, which are pretty extensive. It would be helpful if there were grants available for companies to work with consultants to develop these required plans.
- The federal government needs to do more in Alaska with defense spending/activity.
- The Jones Act and Buy America Act sucks. One example is Usibelli. Lowest sulfur coal in the world. There are no American made barges for transport, so they can't ship coal from Anchorage to an American port. This greatly hinders Usibelli potential markets. If they sold more, then they would buy much more of our equipment. Buy America requires stuff sold to Federal agencies to be 100% American. If a truck we are selling is assembled in the US, but only has 85% of the parts coming from the US we can't get a federal contract unless we under-bid significantly. If we come in 25% lower than a 100% US product then there can be a waiver. To get the price that low, we barely make a profit. This process ends up costing DOD and taxpayers a lot of money, with minimal benefits for US workers. It's stupid.
- The number of qualified folks is the biggest challenge. Defense roles are highly specialized and qualified people are not widely available.
- The procurement process is very daunting. We have been doing it for a long time and it's hard for us. There is very little clarity.
- The Service Contract Act is cumbersome.

- There can be issues getting people qualified to work on base (background checks).
- These projects require a lot of paperwork and administrative challenges. This is hard for smaller businesses. That and availability of qualified local subcontractors.
- We could use more IT specialist contractors.
- We lost vessel tracking work in Alaska to a firm in Florida. Industry and NGO's reporting that the quality of their service is not good, and that response capabilities have been diluted. They don't have the same skill set as a company based in Alaska. Why have this work done outside of the state? Price is not always the most important, quality counts.
- We would buy in AK if there were manufacturers. It's expensive to ship products to Alaska.
- Who gets prioritized for bids should be a change in the regulations. Availability of new equipment and training programs.
- Workforce development training programs would help small businesses but depends on available contracts. Changes in defense regulations, specifically administrative barriers for small businesses, barriers to competition. Additionally, federal-level decisions on defense industry nationally.
- Workforce development would benefit *within DOD*, not the contractors. Less regulation generally would increase activity (no specifics).

Q15 Vendors' Other Key Markets

- Agricultural production. Construction industry (aka: removing invasive plants from gravel, etc.). Mining and mine reclamation.
- Alaska Railroad, fuel, anything railroads related.
- Alaska Department of Transportation and Public Facilities, commercial and industrial vessels, commercial fishing.
- All resource industries.
- Anybody who needs accessibility – all markets.
- Assisted living, and other local businesses. We buy companies that help people at the local level.
- Aviation, municipal.
- Boat storage, commercial fishing, Alaska Native villages (hydro development).
- Building rural schools, grocery stores, industrial buildings, and commercial offices.
- City and state government, private work.
- Commercial businesses.
- Commercial construction and infrastructure development, oil and gas.
- Commercial construction, state and federal contracting, oil and gas construction, mining construction.
- Commercial contract work (construction, telecommunications, retail) and tourism.

- Commercial fishing, oil and gas.
- Commercial fishing, cargo shipping.
- Commercial fishing, government agencies, and marine cargo.
- Commercial fishing.
- Commercial fishing. We do boat repairs and provide engines.
- Commercial health care, retail, government services.
- Commercial maritime industry.
- Communications.
- Construction, oil and gas, and mining.
- Construction.
- Cruise ship work, commercial shipping. But we haven't been to Alaska in three years.
- Currently working in tourism and investments. Looking into resource development (gravel extraction).
- Cybersecurity for SLED, fed, and commercial ("SLED" = state and local government and education).
- Delta Soil and Water District, Greely projects, equipment rental to federal government projects.
- Electric generation, construction, and retail fuel sales.
- Electrical and mechanical work in the commercial and industrial sector.
- Energy, transportation.
- Environmental cleanup for large corporations and non-profits.
- Environmental remediation, environmental development, and environmental permitting.
- Environmental surveys, government agencies, municipalities, architects, occasionally general contractors, private sector, and oil.
- Exclusively government contractors.
- Fisheries, tourism.
- Fishing and marine transportation.
- Forestry, oil and gas, construction, and mining.
- General aviation, tourism.
- Healthcare, education.
- Healthcare (tribal health – we have bid preference), public sector (school district).
- Healthcare and industrial.
- Heavy marine construction, mostly for federal and state governments.
- I did consulting work for a while at Ted Stevens International Airport, other airports out of state, helped other businesses work with the military through consulting.

- Information technology, satellite research.
- Janitorial services. Aviation maintenance and services.
- Local and state governments, federal buildings, some private and residential.
- Local governments, commercial fishing, and mining.
- Maintenance and new construction for commercial market.
- Marine, construction.
- Medical facilities construction, deferred maintenance with the Municipality of Anchorage, mostly on roads and infrastructure.
- Medical, and housing construction (multi, low-income, etc.)
- Mining (EIS/NEPA work).
- Mining and military.
- Mining, general construction, oil and gas.
- Mining, government work (public sector), and tourism.
- Mining, local governments and school districts.
- Municipalities.
- Municipality, Department of Transportation projects, airports, and highways and runways.
- Nearly all of our Alaska work is with 8(a) partners.
- No other contracts, occasional tourism and fishing from the Lower 48.
- None in Alaska. We are in the education industry elsewhere as we do a lot of college dorms in other states.
- None, but we could expand to oil and gas, Alaska Land Mobile Radio (ALMR) network, and UAF "niche things."
- Oil and gas industry.
- Oil and gas, and North Slope.
- Oil and gas, commercial sector.
- Oil and gas, mining, construction.
- Oil and gas, mining, power projects (wind, hydro, etc.)
- Oil and gas, municipalities, and state.
- Oil and gas, non-defense government contracting, mining, and minerals.
- Oil and gas, previously.
- Oil and gas, public works, and mining.
- Oil and gas, State of Alaska including UA, education K-20, medical, and financial.

- Oil fields. The DOD work comes in four-year contracts. We try to maintain other work in case we lose DOD.
- Oil industry refineries, municipalities, public sector (very small percentage).
- Oil, mining, fishing industry, municipality work, and airports.
- Other federal agencies, such as DOI.
- Other government agencies, like the FAA and USDA.
- Other hospitals and clinics, serving Alaska Native people and non-Native people.
- Personal care attendants, administrative staff, and office work.
- Private commercial construction.
- Private health clubs.
- Private power plants, and education (UAF).
- Private sector (80%), healthcare, municipal work, and non-profits.
- Private sector and oil and gas.
- Provide training and support to UA, AVTEC, and other training centers.
- Public safety.
- Public sector (schools, UA, and airport), commercial clients, and health care.
- Public utilities, coal mines, machine shops, and private sector.
- Public utilities, public infrastructure projects, private and commercial development.
- Regional, commercial construction in Southeast.
- Residential home building.
- Right now, none, since it's wintertime. But during warmer months, we do projects with the local commercial industry, University, and State projects. Borough projects. Generally, we avoid private-sector projects.
- Road construction for Mat-Su Borough, DNR, and USFS.
- School districts, DOTPF, and other federal agencies.
- Seafood industry.
- Shipping, distribution, and emergency response, and oil and gas.
- Social services.
- Sport fishing, hunting, and timber.
- State (DOC, DHSS, DOTPF) and education.
- State and local construction.
- State and local government, public safety agencies, and oil and gas industry.
- State and local government, utilities, private sector, and tourism.

- State and local governments (DOTPF, UA, school districts).
- State and local work.
- State of Alaska capital projects.
- State of Alaska, private housing, and other federal work.
- State, some private like oil and gas, remote gravel crushing, and marine transportation.
- Title insurance fuel distribution.
- Tourism and mining.
- Tourism, ship husbandry, fishing industry, charters, and large cruise ships.
- Tourism, State Department of Transportation, and oil and gas.
- Tourism, with a large increase in the past three years.
- Tourism.
- Training.
- Transportation (highways, etc.), municipalities, and boroughs.
- Tugs and barges, salvage, and commercial fishing.
- University of Alaska, Fairbanks boroughs, government agencies, and very small amount of private sector work.
- VA, commercial and residential work, and other government facilities.
- We are a non-profit. We also work in tourism and oil and gas.
- We do exclusively demolition and abatement. Only have people in Alaska when there are contracts, at which time we hire local subcontractors to complete the work.
- We provide ad-hoc service of passenger airlift on the commercial side, including to oil industry, tourism, and evacuations.

Appendix C: Key Informant Interview Protocols

Military Stakeholders Interview Protocol

Hi, this is _____ with McDowell Group, an Alaska-based research firm. We're doing a study on the defense industry in Alaska as part of the University of Alaska Center for Economic Development's Defense Industry Resilience Initiative. Thank you for your willingness to participate. Could you clarify your name and position: _____ [If concerned: Your responses will not be linked to your name and will be summarized along with other key informant input.]

First, I'd like to ask you about Alaska's business climate.

1. Overall, would you say the current business climate in Alaska is very strong, slightly strong, slightly weak, or very weak?

- | | |
|----------------------------|---------------|
| 1. Very strong | 5. Very weak |
| 2. Slightly strong | 6. Don't know |
| 3. Slightly weak | 7. Refused |
| 4. Neither strong nor weak | |

2. Overall, do you think the defense industry is very important, somewhat important, or not that important to Alaska's economy?

1. Very important
2. Somewhat important
3. Not that important
4. Don't know
5. Refused

3. Overall, do you think defense industry spending in Alaska will significantly increase, slightly increase, slightly decrease, significantly decrease, or remain unchanged?

- | | |
|-------------------------|---------------------|
| 1. Significant increase | 5. Remain Unchanged |
| 2. Slight increase | 6. Don't know |
| 3. Significant decrease | 7. Refused |
| 4. Slight decrease | |

4. Can you give a brief rundown of the status of projects currently underway and/or expected to start up in the next few years in your area?

5. Overall, how difficult is it to find qualified vendors and contractors for your needs?

1. Very difficult
2. Somewhat difficult
3. Not difficult
4. Don't know
5. Refused

5a. How difficult is it to find in-state qualified vendors and contractors?

1. Very difficult
2. Somewhat difficult
3. Not difficult
4. Don't know
5. Refused

5b. What type of vendors or contractors are the hardest to find in Alaska?

6. How are the needs of the military evolving with respect to your purchasing and contracting needs? (for example, modernization, innovation, tech, cyber-security, community partnerships ...)

7. Does the availability – or lack – of in-state contractors affect your mission-readiness?

8. Do you know of any policies or regulations that help or hinder increased defense industry contracting in Alaska? These could be at the local, state or federal level.

9. What is your role in procurement?

9a. Where are most procurement decisions made?

9b (if applicable). What kind of outreach do you do to reach potential vendors and contractors?

Non-Military Stakeholders Interview Protocol

Hi, this is _____ with McDowell Group, an Alaska-based research firm. We're doing a study on the defense industry in Alaska as part of the University of Alaska Center for Economic Development's Defense Industry Resilience Initiative. Thank you for your willingness to participate. Could you clarify your name and position: _____ [If concerned: Your responses will not be linked to your name and will be summarized along with other key informant input.]

First, I'd like to ask you about Alaska's business climate.

1. Overall, would you say the current business climate in Alaska is very strong, slightly strong, slightly weak, or very weak?

- | | |
|----------------------------|---------------|
| 1. Very strong | 5. Very weak |
| 2. Slightly strong | 6. Don't know |
| 3. Slightly weak | 7. Refused |
| 4. Neither strong nor weak | |

2. Overall, do you think the defense industry is very important, somewhat important, or not that important to Alaska's economy?

- | | |
|-----------------------|---------------|
| 1. Very important | 4. Don't know |
| 2. Somewhat important | 5. Refused |
| 3. Not that important | |

3. Overall, do you think defense industry spending and activity in Alaska will significantly increase, slightly increase, slightly decrease, significantly decrease, or remain unchanged?

- | | |
|-------------------------|---------------------|
| 1. Significant increase | 5. Remain unchanged |
| 2. Slight increase | 6. Don't know |
| 3. Significant decrease | 7. Refused |
| 4. Slight decrease | |

4. Over the next few years do you anticipate that civilian defense industry jobs in your region will significantly increase, slightly increase, slightly decrease, significantly decrease, or remain unchanged?

1. Significant increase

2. Slight increase

3. Slight decrease

4. Significant decrease

5. No change

6. Don't Know

7. Refused

5. Overall, do you think contractors and vendors doing military work in Alaska have a very difficult, somewhat difficult, or not difficult time hiring qualified staff?

1. Very difficult

2. Somewhat difficult

3. Not difficult (skip to Q7)

4. Don't know (skip to Q7)

5. Refused (skip to Q7)

6. What specific defense industry jobs do you think contractors and vendors find hardest to fill?

7. Do you know if there are any barriers to increasing the level of defense industry work in Alaska?

8. Do you know of any policies or regulations that help or hinder increased defense industry activity in Alaska? These could be at the local, state or federal level.

9. What policies or regulations could be implemented at the local, state, or federal level to improve the defense business climate in Alaska? [For example: policy and regulation, training and education, financial opportunities or partnerships, etc.]