

# ALASKA: State of Entrepreneurship



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May 2018  
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# Table of Contents

Introduction	2
Business Dynamics in Alaska	4
Startups Create Jobs	6
Job Creation and Destruction	8
What Happens to Jobs after Startup?	9
Industry Sectors	11
Geography of Entrepreneurship in Alaska	12
Startup Activity around Alaska	14
Discussion	17
How does Alaska Compare to Other States?	17
Kauffman Index	17
In Search of Scale	19
The Entrepreneur's Perspective	20
Capital	23
The Year Ahead	25
Notes and Data Methods	27
End Notes	28
Contributors	29
Appendix A: Annual Survey of Entrepreneurs	30

# Introduction

When Attently found itself with more work than it could handle, the owners did what businesses do: they hired staff. But Fairbanks-based Attently is not your average mom-and-pop small business.

Founded in 2016 at a Startup Weekend (a facilitated 54-hour event designed to launch startups), Attently went on to win the Arctic Innovation Competition a few months later. A whirlwind of product development, investor pitches, and acceptance into the Launch Alaska accelerator followed. Investors liked what they heard, and wrote checks accordingly. The first customers materialized.

Attently's product is a software application that analyzes video recordings of audiences to gauge emotional reaction. It picks up body language cues, facial expressions, and other emotional indicators. It can also provide a breakdown of audience gender, age, and other demographic information. Corporate trainers and political campaigns are two of their targeted customer segments.

Simultaneously refining the software, pursuing investment, and chasing customers stretched the team of three founders to the max. Asked why they hired three staff in late 2017, co-founder Eric Solie is matter-of-fact: "We had to, in order to build the tech that the market is asking for." Solie explains

Over the last decade, startups in Alaska consistently added 4,000 to 6,000 jobs to the economy each year. Firms that are aged five years or younger accounted for 89% of Alaska's net employment growth in the private sector.

that the company is hungry for talent and plans to hire more staff within the year. The founders have even cultivated a software developer group in Fairbanks, which may supply the company with additional talent.

Startup businesses like Attently are the primary vehicle of job growth in the private sector. Over the last decade, startups in Alaska consistently added 4,000 to 6,000 jobs to the economy each year. Firms that are aged five years or younger accounted for 89% of Alaska's net employment growth in the private sector.<sup>1</sup>

*Erik Talvi and Eric Solie,  
co-founders of Attently  
Photo Credit: DreFoto  
for Launch Alaska*



As Alaska's economy finds itself mired in a recession caused by low oil prices, the state's entrepreneurs continue to launch startups and create jobs at pre-recession levels. In fact, preliminary estimates suggest that the recession has done little to dampen the potent force of entrepreneurial job creation, even as the rest of the economy sees employment declines. Policymakers and civic leaders easily overlook the formation of new businesses as an engine of prosperity.

*Alaska: The State of Entrepreneurship* is an attempt to better understand and characterize this engine. In doing so, we analyze data that has not been previously published in an Alaska-specific context. Interwoven with the data are stories from real-life entrepreneurs to add texture and aid interpretation. The report puts numbers and narrative to the jobs that startup businesses create and shows how they are maintained despite the notoriously high failure rate of new firms. We then explore the variations in these trends throughout Alaska's di-



**Startup definition: The term “startup” is subject to various definitions. In this report, we use it to refer to employer firms less than one year old.**

verse geography. In the process, we find surprising nuance to the state's urban-rural divide. Taking the geography of entrepreneurship a step further, we place Alaska in its national context. Here again, the results are surprising and show that by some measures Alaskans are among the most entrepreneurial inhabitants of any state.

Going deeper, we explore the motivations, experience, and traits of entrepreneurs themselves. Here again we rely on a mix of data and personal experiences to begin the process of understanding why someone might forgo security and stability to start a risky enterprise. Topics examined include capital needs and sources, serial entrepreneurship, and the demographics of business ownership. Like business owners in the US at large, Alaska's entrepreneurs are likelier than not to be older, male, and non-minority than the bulk of the population.

As Alaska's economy faces headwinds, a better understanding of entrepreneurship could yield high payoffs in the form of jobs and general prosperity. This report is intended to stir dialog and discussion about the importance of entrepreneurship. While it does not make specific recommendations, we hope it will serve as a starting point to explore other aspects of entrepreneurship in the near future.

*Eric McCallum, founder  
of Arctic Wire and Rope.  
Photo credit: Shipe Shots*

# Business Dynamics in Alaska

Alaska was just one of roughly 1,000 employer businesses founded in 2016. Although the state entered a recession in 2015, the weak economy does not appear to have dampened startup activity in any noticeable way.

The number of new employer firms started each year fell by 25% between 2007 and 2010, and has been relatively flat since then. This drop may be related to the national recession caused by the housing bubble in 2008-2009, as US figures for business startups show a similar trend.

Interestingly, preliminary estimates show an uptick in 2017, when Alaska was in a recession but the US as a whole was not.

**Employer firm definition: a firm with at least one employee who is not an owner.**

New Employer Firms by Year in Alaska

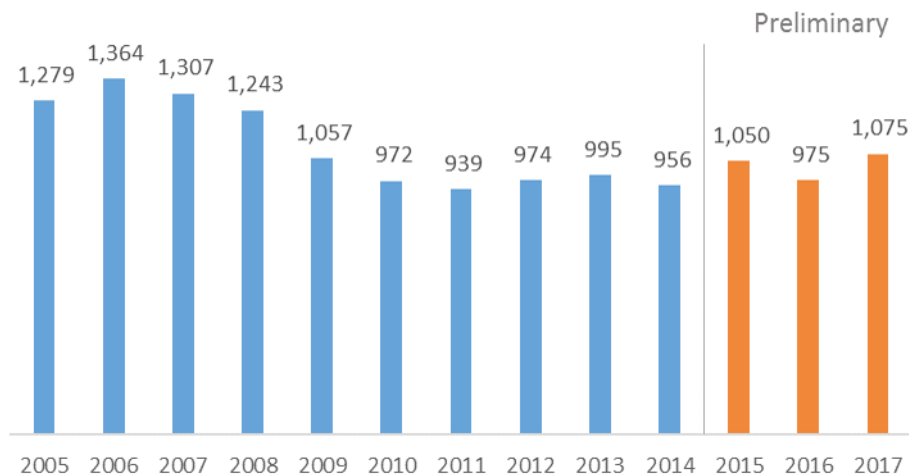


Figure 1: New employer firms by year in Alaska. Source: Business Dynamics Statistics, Business Employment Dynamics, and CED calculations.

Nearly one in ten firms was a startup (less than one year old) on average between 2005 and 2014. The greatest share of firms were between six and ten

years old, with shares dropping over the next three age groupings.

### Alaska Employer Firms Broken Down by Age

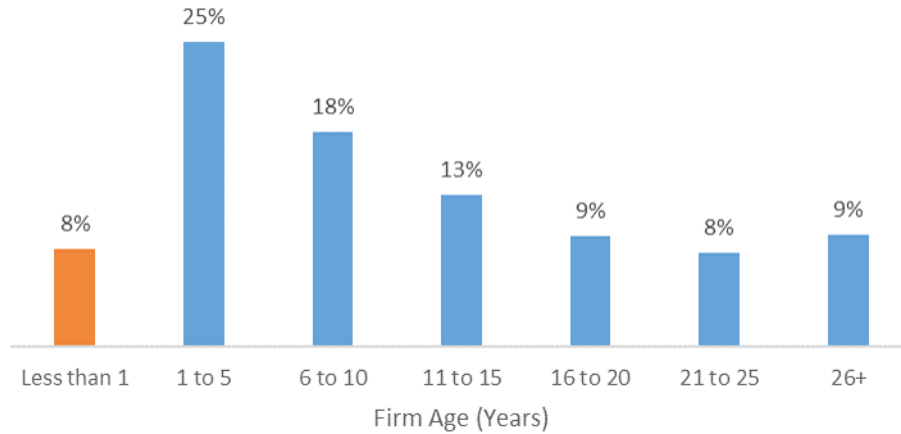


Figure 2: Employer firms by age in Alaska, average of 2005-2014. Source: Business Dynamics Statistics, CED calculations.

Business licenses Issued by the State of Alaska are another a useful measure of business starts. The State sold over 16,000 in Fiscal Year 2017, an increase from the prior year, bringing the total number of active licenses to 73,085. Licenses serve a useful role as an approximate indicator of entrepreneurial intent, although business licenses

are an imperfect source of data. Obtaining a license does mean that the business operates in a meaningful sense, as license data do not provide details on employment, payroll, or sales. Licenses also fail to distinguish between employer and nonemployer firms.

### New Business Licenses Sold

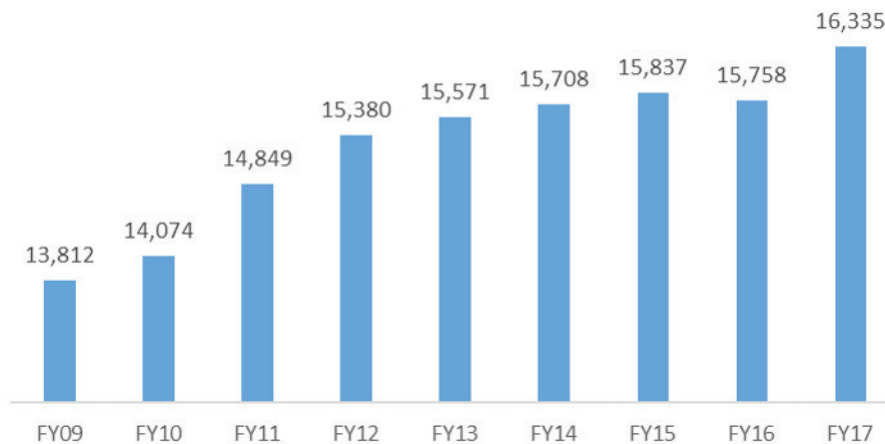


Figure 3: New business licenses sold in Alaska. Source: Alaska Department of Commerce, Community, and Economic Development.

## Startups Create Jobs

Kevin Stadler describes his employees as “the lifeblood of the company.” He started Alaska Industrial Paint with this employee-centric philosophy in mind. Moving to Alaska in 1984 and finding work on the North Slope, Stadler noticed the seasonal swings in the state’s job market. It bothered him that so many workers would get laid off every fall, and often leave the state. The next spring, a new batch of workers from Texas or Louisiana would come up for summer work. After a career in insurance and a stint as co-owner of an auto body shop, Stadler spent a year planning to launch his industrial painting and coating business. He thought of ways to create year-round, good paying jobs for Alaskans.

In the course of doing his research, he found that all railroad cars in Alaska had to be sent out of state to be painted because nobody in-state provided the service. Painting usually took place during the winter, outside of the busy visitor season. Stadler spied an opportunity to bring the work home. The Alaska Railroad and Holland America quickly saw the value too, and became his first customers. Stadler soon added painting and coating for metal fuel tanks, motorcoaches, and trucks to

Alaska’s startups and young companies account for essentially all new private sector jobs in Alaska, on net, each year.

the company’s repertoire. Now in his fifth year in operations, he has grown the company from two employees in its first year to 20. Next year, he believes he will need to hire another 15 workers to keep up with the workflow.

Alaska Industrial Paint, like Attently, illustrates the appetite among young companies to grow a workforce. Alaska’s startups and young companies account for essentially all new private sector jobs in Alaska, on net, each year. Between 2005 and 2014, employer firms less than one year old added an average of 5,200 jobs per year. Net job creation for firms of all ages averaged 4,947—this means without new firms, Alaska would have lost more private sector jobs than it created during those years.



*Joseph Freel puts the finishing touches on the Alaska Railroad Corp. logo at Alaska Industrial Paint in Downtown Anchorage. Photo credit: Naomi Klouda, Alaska Journal of Commerce)*

As figure 4 shows, new firms have created roughly 4,000 to 6,000 jobs each year in Alaska since 2005. The statewide recession that began in 2015 did not noticeably diminish this trend, as new businesses added about 4,350 jobs in 2017. As a point of reference, Alaska lost 3,600 jobs overall in 2017.<sup>2</sup>

To understand the effect of new firms on job creation, it is helpful to break businesses into age groups and examine the job creation of each group. As Figure 5 demonstrates, most age brackets showed slightly negative net job creation on average between 2005 and 2014. Only new firms and those 26 years old or older created more jobs than they shed during those years. While startup firms are only 8% of all employer businesses in Alaska, they account for over 105% of net new

Accounting for the job losses that occur in the subsequent years, firms under five years old as a group are responsible for a still impressive 89% of net job creation.

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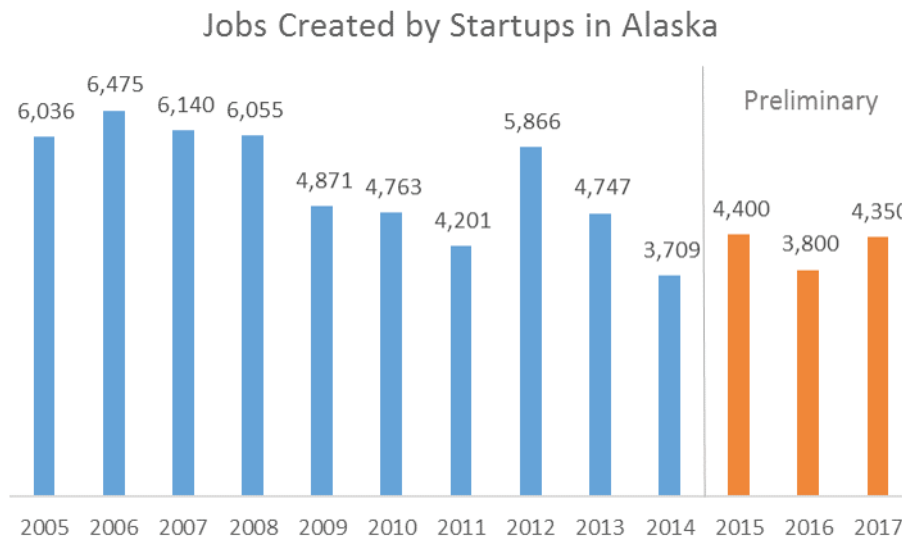


Figure 4: Jobs created by employer firms less than one year old in Alaska. Source: Business Dynamics Statistics, Business Employment Dynamics, and CED calculations.



### Job Creation and Job Destruction

Healthy economies create and destroy jobs each year. As businesses expand or contract, open or close, they hire or shed jobs. The magnitude of this annual churn can be surprisingly large. In 2015, for instance, in-state businesses created almost new 37,000 jobs, but eliminated about 34,000.<sup>4</sup> When firms are broken into age categories by year of birth, data shows that firms of most age groupings shed as many jobs as they create (Figure 5). Essentially, job destruction cancels job creation throughout most of the economy. In contrast to established firms seeking to contain operating costs, startups must actively expand and hire as they expand their customer base. Almost by definition, new companies pursue growth.

“At the heart of capitalism is creative destruction.”  
–Joseph Schumpeter, 20th Century economist

Figure 6 shows the “cancelling out” effect on job creation in Alaska. If firms less than one year old are removed from consideration, job creation and job destruction are nearly identical. New firms provide the margin that makes employment growth positive in most years.

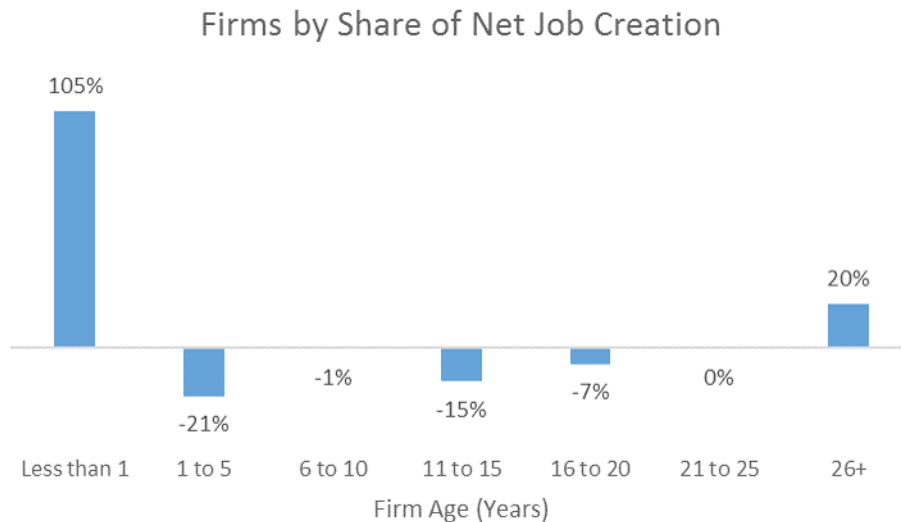


Figure 5: Firms by share of net job creation, 2005-2014. Source: Business Dynamics Statistics.

## Job Creation vs Destruction for All Firms

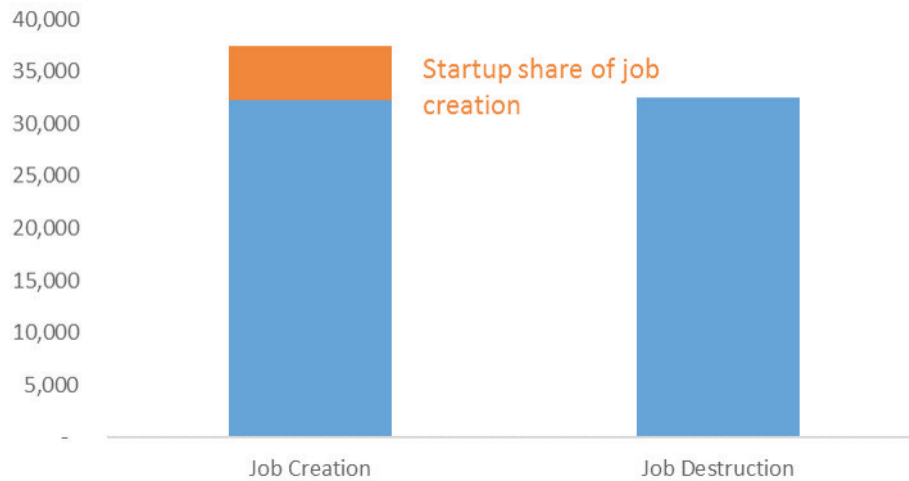


Figure 6: Job creation vs destruction for all firms, average of 2005-2014.  
Source: Business Dynamics Statistics.

### What Happens to the Jobs after Startup?

In his early years as a business owner Eric McCallum saw countless other young firms shut their doors. He founded his industrial supply business, Arctic Wire Rope and Supply, in the heyday of Alaska's first oil boom following the completion of the Trans Alaska Pipeline. When oil prices fell sharply in 1986, the state entered a sharp economic downturn that hit firms supplying the oil and gas industry, like his, especially hard. "The bad economy forced us to be 'lean and mean,'" McCallum explains. He steered his business through the storm with a disciplined focus on efficiency and cost containment while steadily growing market share. During the first year he and a partner ran the company themselves without employees. He spent his days drumming up sales, and nights on the shop floor. By his fifth year, the economy was recovering and the firm had grown to between 10 and 12 employees.

Arctic Wire Rope's case is an example of what economists refer to as the "up or out" dynamic of young employer firms. These new businesses tend to either grow quickly (as measured by employment) or close down.

Arctic Wire Rope's case is an example of what economists refer to as the "up or out" dynamic of young employer firms. These new businesses tend to either grow quickly (as measured by employment) or close down.<sup>5</sup> Data from the Business Dynamics Statistics makes clear the high rate of failure among young firms. Just one year after hiring their first employees, about one quarter of businesses fail. After five years, slightly less than half remain in operation. These survival rates for Alaskan firms founded in 2009 are similar to national rates, as shown in Figure 7.

### Survival Rates

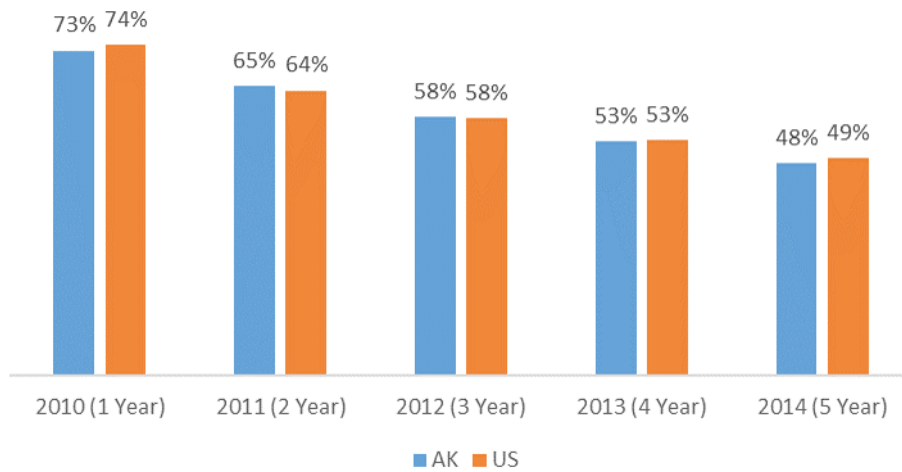


Figure 7: Survival rates for employer firms born in 2009 for Alaska and the US.  
Source: Business Dynamics Statistics, CED calculations.

The cohort of employer firms that started in 2009 in Alaska hired an average of 4.6 employees in their first year, growing to 8.4 employees by year five (2014). So while half of the firms started in 2009 failed by 2014, those that survived nearly doubled their employment size. Taken as a whole, the surviving firms recorded 87% of total first-year

employment levels by 2014, even as the number of remaining firms shrank dramatically. Although separated in time by nearly three decades, the 2009 cohort experienced the same “up or out” driving forces as Arctic Wire Rope and Supply’s early years. This helps explain how firms less than five years old drive 89% of net job creation.

### Average Employment Size by Year

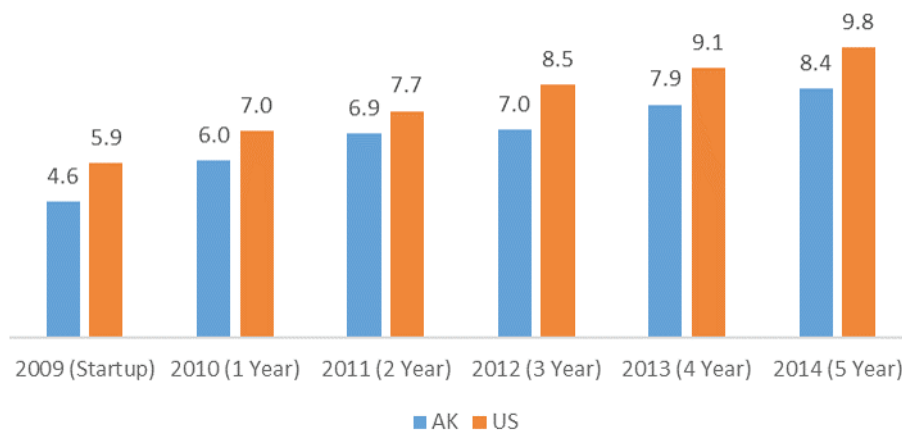


Figure 8: Average employment size by year.  
Source: Business Dynamics Statistics, CED calculations.

## Industry Sectors

To monitor the health of an economy, the most up-to-date information is often broken out by industry. Alaska Department of Labor's monthly employment reports are just one example. Unfortunately, the data sources that quantify firms by age do not offer a breakdown of firms by industry at the state level. As a substitute, establishment data from the Bureau of Labor Statistics provides industry classifications for new establishments (less than one year old) and associated employment. An establishment is an operating location with employees that is owned by a firm. Firms often have more than one establishment, but a majority of establishments are independent firms. The opening of new establishments thus indicates new business formation, albeit imperfectly.

For both new establishments and jobs created by those establishments, five industry sectors rise to the top: professional services, education and health services, construction, and leisure and hospitality. Professional services includes engineering firms, law firms, and consultants, among others. Although this sector accounts for the greatest share of new establishments, it is not the leading sector for job creation. That distinction goes to leisure and hospitality, a category closely associated with the visitor industry.

Sector	Share of Jobs from New Establishments	Share of New Establishments
Leisure and Hospitality	24%	14%
Education and Health Services	16%	16%
Professional Services	15%	24%
Retail Trade	15%	11%
Construction	10%	15%
Transport/ Warehousing	8%	5%
Financial Activities	7%	7%
Natural Resources and Mining	4%	3%
Manufacturing	1%	2%
Wholesale Trade	1%	2%
Information	0%	3%

Figure 9: Share of new establishments by industry and jobs from new establishments, 2008-2017.  
Source: BLS Business Employment Dynamics, CED calculations.

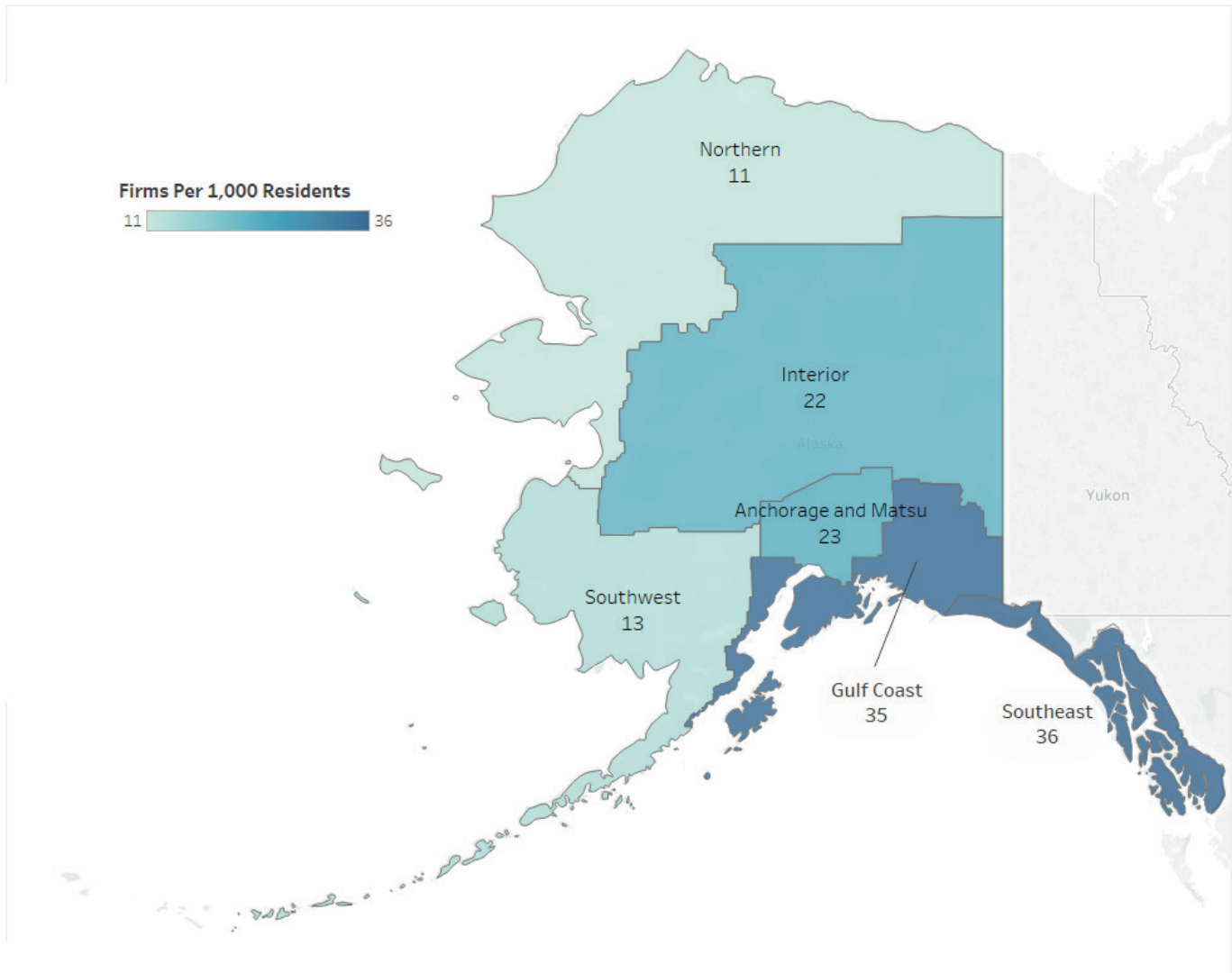
# Geography of Entrepreneurship in Alaska

Economic opportunity is not evenly distributed throughout Alaska. A pronounced urban-rural divide in income levels, unemployment rates, and cost of living is perhaps the most apparent disparity. In December 2017, for instance, 12 of the state’s 30 boroughs or census areas showed unemployment rates of 12% or higher—about three times the national average and nearly double the state average. All of these areas are rural. Alaska’s three largest localities of Anchorage, Fairbanks, and Juneau all had unemployment rates well below the state average.<sup>6</sup> Income differentials are just as significant. In 2016, the average resident of the Kusilvak Census Area in Western Alaska reported an income of only \$12,000 per year, about one-third the Anchorage level.<sup>7</sup>

How does Alaska’s economic geography influence entrepreneurship? Geographic factors weigh heavily in the placement of firms throughout the state. There is a vast divide between those with the greatest density of firms and the least. Interestingly, the state’s urban areas fall in the middle of the distribution, with rural areas accounting for the extremes. There is a roughly 20-fold difference between Skagway, with 100 firms per 1,000 residents and the Kusilvak Census Area, with only five per 1,000 residents. Both areas are rural, though distinctly different from one another.

Borough/Census Area	Firms per 1,000 Population
Skagway Municipality	103
Bristol Bay Borough	68
Haines Borough	53
Petersburg Borough	52
Denali Borough	49
Valdez-Cordova Census Area	48
Yakutat City and Borough	43
Sitka City and Borough	42
Ketchikan Gateway Borough	41
Hoonah-Angoon Census Area	33
Wrangell City and Borough	33
Kenai Peninsula Borough	33
Kodiak Island Borough	33
Juneau City and Borough	32
Lake and Peninsula Borough	31
Anchorage Municipality	24
Southeast Fairbanks Census Area	24
Fairbanks North Star Borough	22
Matanuska-Susitna Borough	20
Prince of Wales-Hyder Census Area	19
Dillingham Census Area	18
Aleutians West Census Area	17
Yukon-Koyukuk Census Area	15
Nome Census Area	14
Aleutians East Borough	11
North Slope Borough	10
Bethel Census Area	9
Northwest Arctic Borough	8
Kusilvak Census Area	5

Figure 10: Businesses per 1,000 residents for all boroughs and census areas. Source: Statistics of US Businesses and American Community Survey, 2014 data.



Areas with small populations and high seasonal influxes of visitors or workers top the list. Skagway has only about 1,000 year-round residents, but received almost 900,000 visitors in 2016.<sup>8</sup> Aside from Bristol Bay Borough, with its seasonal commercial fisheries, the top ten areas are major visitor destinations like Denali or Southeast communities. Communities with this characteristic are home to a large number of retail, accommodation, food service, and other businesses needed to service seasonal visitors.

At the bottom of the list are areas rural areas in Southwestern and Northern Alaska. These communities are burdened with high energy and transportation costs. Most are also disconnected from the road and marine highway systems. Some combination of these factors likely contributes to a less optimal climate for entrepreneurship. Anchorage, Fairbanks, and Juneau rank near the middle of the distribution and close to the statewide average.

### Startup Activity Around Alaska

Establishment data may offer some insight into geographic differences, but it tells us little about the dynamics of new employer firms and job creation. Data showing firm births is available for the metropolitan areas of Anchorage and Matanuska-Susitna Valley as a combined unit, as well as for the Fairbanks North Star Borough. The remaining areas of the state are lumped together as Non-Metro Alaska. Unfortunately, this data cannot be broken down by borough or census area.

These three geographic units, Anchorage/Mat-Su, Fairbanks North Star Borough, and Non-Metro Alaska each create a proportionate share of employer firms in relation to their population.

When it comes to startup related job creation, however, Anchorage/Mat-Su accounts for an outsized portion at 64%. This appears to be Alaska's version of national phenomenon in which larger cities show higher levels of entrepreneurial activity than rural areas.

This disparity can be explained by the number of jobs created by each new firm (*Figure 13*). Anchorage/Mat-Su firms begin life with a higher employee headcount than in other parts of the state. Fairbanks firms are about equal to the state average, while Non-Metro businesses hire fewer workers. Alaska startup firms in general hire fewer personnel than national averages.

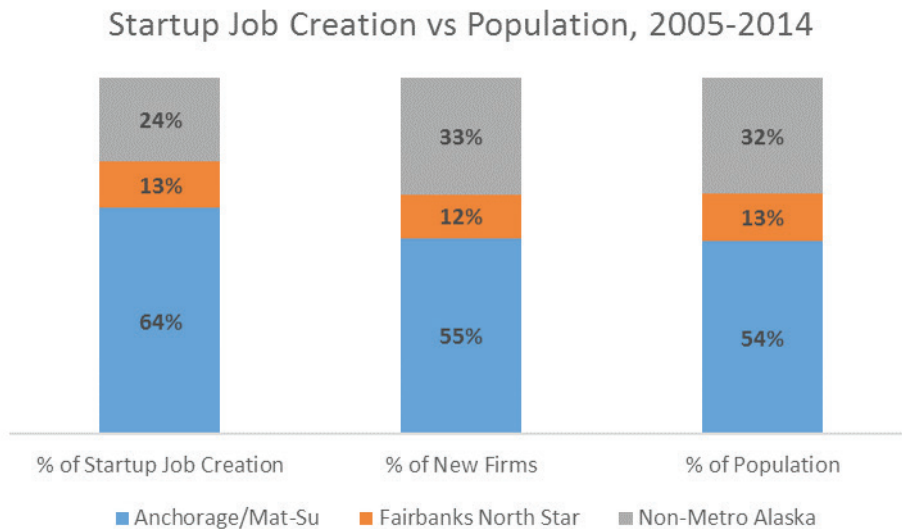


Figure 12: Share of new firms, startup job creation, and population, average of 2005-2014. Source: Business Dynamics Statistics, American Community Survey, CED calculations.

### Jobs Per Startup, 2005-2014

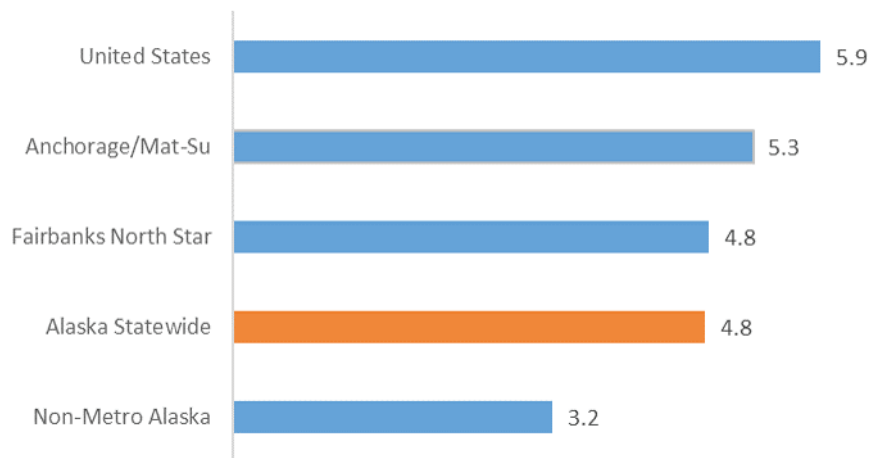


Figure 13: Jobs per startup, average of 2005-2014.  
Source: Business Dynamics Statistics, CED calculations.

The growth of young firms between startup and year five is another key metric for identifying the dynamism of new businesses in a given region. We saw in the previous section that about half of firms fail by their fifth year, but those that survive tend to grow quickly. Dividing the average employment for year five by that of their first year produces a growth rate shown below. A rate of 1.00 would indicate that a five-year-old firm has the same

average employment that it did its first year, while 2.00 would mean it doubled in that time span. As Figure 14 shows, Alaska's young firms tend to grow faster than the national average, with the exception of Non-Metro Alaska. Some of the high growth is the result of a low base, as Alaska firms start with a smaller number of employees than the national average and show a bigger percentage increase.

### Startup to Year 5 Growth Rate

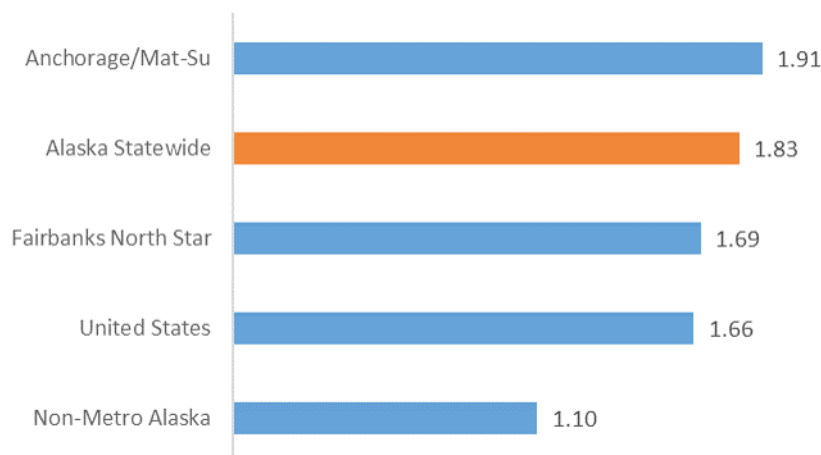


Figure 14: Growth rate between birth and year 5 for firms born in 2009 and surviving through 2014. Source: Business Dynamics Statistics, CED calculations.





Heather Kelly, of Heather's Choice, presenting at Launch Alaska's Demo Day. Heather's Choice is three years old, and makes lightweight, gluten-free backpacking food. Photo credit: Drefoto for Launch Alaska.

Taken together, firms in their first five years of life tend to be the most dynamic age segment, with both high failure and growth rates. Figure 15 below shows the number of firms between these ages on a population adjusted basis. A greater number

of young firms could indicate a more favorable environment for entrepreneurship. Anchorage/Mat-Su, Non-Metro, and the state overall have a higher share of young firms per capita than the US as a whole.

Young Firms per 1,000 Population, 2010-2014

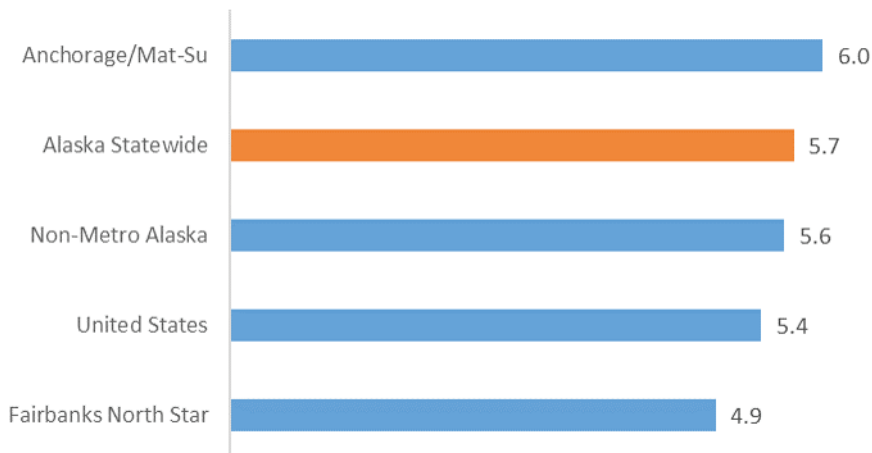


Figure 15: Young firms per 1,000 population. Based on the number of firms in each area that are age 5 or younger. Source: Business Dynamics Statistics, American Community Survey, CED calculations.

## Discussion

Of the three areas with suitable data for analysis, Anchorage/Mat-Su accounts for the greatest number of jobs per startup, highest growth rate to year five, largest number of young firms per capita. This is unsurprising given the national trend of greater measurable entrepreneurial activity in urban areas. Anchorage/Mat-Su's performance in these indicators does not point to fewer startups for Fairbanks or Non-Metro Alaska, but rather less hiring upon startup and slower growth in the years thereafter.

Ideally, figures for new firms and job creation would be available for all boroughs and census areas in Alaska, but this is not the case. The number of establishments per capita potentially means high rate of business ownership in some rural areas with a large number of visitors. Unfortunately, we know little about the rate at which employer businesses launch and expand in these communities. Non-Metro Alaska as a category lumps together places as disparate as Juneau, the Kenai Peninsula, and Kwethluk, glossing over vast differences. Still, by separating out the largest population centers of Anchorage, the Mat-Su Valley, and the Fairbanks area, the data points to a wide gulf between urban and rural Alaska.

## How Does Alaska Compare to Other States?

If you ask business and policy leaders whether or not Alaska has a strong entrepreneurial climate, you may get some strong--and contradictory--opinions. At one end of the spectrum, some observers claim that Alaskans just not as entrepreneurially-minded as other states or the nation as a whole. A 2009 study on the Alaska economy diagnosed the state with "a weak culture of entrepreneurship." Others point to a frontier culture of ingenuity and self-sufficiency, and assume Alaskans are, if anything, more entrepreneurial than their Lower 48 counterparts. "We tend to attract people that like to take risks," says Jon Bittner, State Director of the Alaska Small Business Development Center.

Which view is closer to reality? Interestingly, the data examined in this analysis supports aspects of both viewpoints, placing Alaska at opposite extremes depending on the measure. Alaskans start businesses at some of the highest rates in the country, and grow them quickly in the initial five years. On the other hand, high initial growth rates do not translate into scale beyond a certain point. Alaskan firms trail their national peers in other growth thresholds like reaching 50 employees by year 10.

## Kauffman Index

To place Alaska in context, we turned to data curated by the Kauffman Foundation. The Kauffman Index is the most extensive effort to measure entrepreneurship nationally as well as at the state and metropolitan level. The index has three components, representing different facets of entrepreneurship:

- Index of Growth Entrepreneurship, focused on indicators of growth and scale-up for startups and existing firms, measured by employment.
- Index of Startup Activity, which indicates the frequency of business starts.
- Index of Main Street Entrepreneurship, measuring the health of small businesses that are more than five years old with fewer than 50 employees.



*Jon Bittner, State Director, Small Business Development Center  
Photo credit: Drefoto for Launch Alaska*

The Kauffman Foundation publishes the index annually, ranking the 25 smallest and 25 largest states by population.

For 2017, Alaska’s rankings among the 25 smallest states are:

- Growth Entrepreneurship, 18th out of 25.
- Startup Activity, 6th.
- Mainstreet Entrepreneurship, 19th.

These 2017 rankings point to relatively weak performance on Growth and Mainstreet Entrepreneurship compared to other small states, but strength in Startup Activity. To provide more

detailed analysis, CED calculated 10-year averages for each of the nine indicators (three per index) and ranked Alaska against all 50 states on each. We also computed the US average for each to compare Alaska directly to national averages. Using a 10-year average, we hoped to prevent an unusually high or low value for an indicator from skewing the data for any one year. Ranking Alaska on each indicator rather than a composite index score permits careful examination to pinpoint areas of strength or weakness. The table below summarizes this analysis, reporting averages of index data from 2008-2017.

Metric	Definition	Rank for Alaska
Share of Scaleups	Share of firms under 10 years of age that grew to employ 50 people by their 10th year of operation.	44
Startup Growth	Employment growth for startup companies five years after founding.	2
High Growth Density	The number of businesses with \$2 million or more in revenues with three years of 20% revenue growth (normalized by the total number of businesses).	49
Rate of New Entrepreneurs	Share of the adult population that started a business any given month during the year.	3
Opportunity Share of New Entrepreneurs	Share of entrepreneurs starting a business who were not unemployed prior to founding the firm	37
Startup Density	Number of employer startup firms (with at least one non-owner employee) per 1,000 firms.	21
Survival Rate	Share of firms still operating five years after founding.	34
Rate of Business Owners	Share of the adult population operating a business as their primary job.	15
Established Small Business Density	Number of businesses in existence for greater than five years with fewer than 50 employees, per 1,000 businesses.	30

Figure 16: Summary of ranking for Alaska on Kauffman Index metrics, based on average of 2008-2017. Source: Kauffman Foundation, CED calculations.

Two indicators stand out as exceptionally strong: startup growth (employment growth by year 5) and rate of new entrepreneurs (share of the adult population starting a business). In both cases, Alaska ranks in the top three out of all 50 states, and notably higher than US averages for the 2008-2017 period.

At the other end of the spectrum, Alaska ranks low in two measures of growth: 44th in share of scale-ups and 49th for high growth density. Interestingly, Alaska is near the US average for scale-ups even though it has a low ranking among states.<sup>10</sup> The state lags significantly in high growth density, near the bottom of the rankings. This latter finding indicates a dearth of fast growing firms, with at least \$2 million in revenue and three years of 20% growth. Other measures place Alaska in the middle of these reconstructed rankings, closer to US averages. The state's rate of business owners is somewhat high, but opportunity share, startup density, survival rate, and established small business density do not stand out as unusually high or low.

*Katherine Jernstrom (far right) moderates a panel about innovation, entrepreneurship, and the global economy for the Alaska World Affairs Council*

### In Search of Scale

What accounts for the high rate of business starts and high initial growth but low evidence of scalability? According to Katherine Jernstrom, startup investor and founder of an Anchorage coworking space, "Scaling is all about being efficient at mass production and increasing revenue exponentially while holding costs on an incremental basis... Scalable companies are also almost always tech-based or have products that can be infinitely replicated." Jernstrom thinks some of the talent needed is in short supply in Alaska. "Because scalable companies are often synonymous with tech companies, it's necessary to have a density of software engineers in a community." Employment figures for Alaska lend credence to Jernstrom's perspective. In 2017, Alaska was home to only 12 establishments classified as software publishers, employing just 14 individuals.<sup>11</sup>

Jernstrom is optimistic about Alaska firms reaching scale, however. "...we haven't had any significant exits allowing for a practiced entrepreneur to start again, or invest through mentorship/financing of others. One solution to this challenge is really just time. Continuing to build access to money, talent, and markets doesn't hurt either."



# The Entrepreneur's Perspective

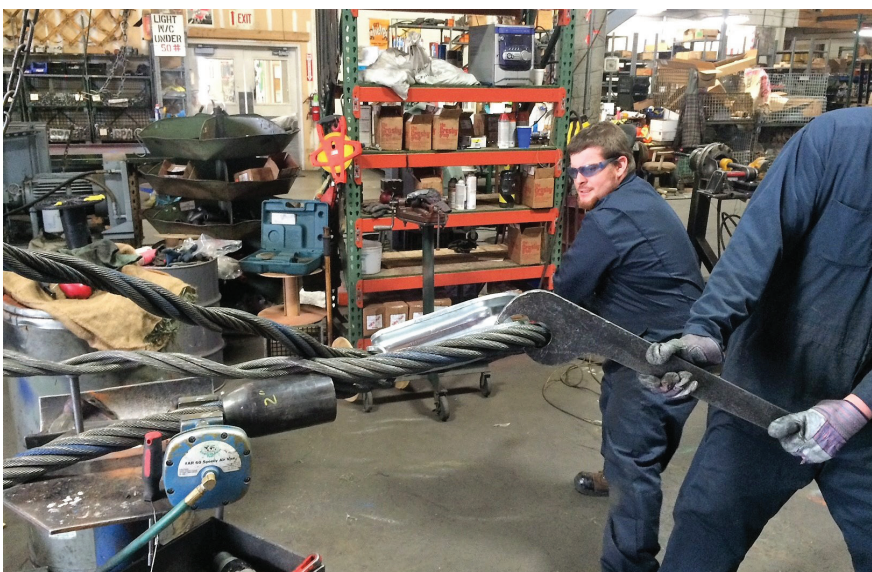
Christina Eneix always knew she was going to be an entrepreneur. Her parents owned a restaurant where she worked as a teenager, so the idea of starting her own business felt like an obvious career path. While attending the University of Alaska Anchorage in the early 2000's, her classmates talked about finding summer jobs. Christina and her future husband Jeremiah, along with another partner, decided to create their own jobs instead by starting a business. As students, a seasonal business fit best into their lives. A landscaping business made the most sense, so they began Green Earth Landworks in 2001. Today, it is one of the largest landscaping businesses in Alaska and has employed as many as 50 workers during the busy summer season.

If some paths to business ownership are deliberate, others are not. "I never really got along with bosses," Eric McCallum laughs. As founder of Arctic Wire Rope and Supply, introduced earlier, he describes himself as an accidental entrepreneur. After losing a job in industrial sales in 1982, McCallum put some careful thought into his next career move. "I was good at industrial sales, but kinda bored with it," he reflects. He decided to take a chance at being his own boss in an industry that he knew well. McCallum wrote a business plan for Arctic Wire Rope and Supply, describing his vision

**"I never really got along with bosses." -Eric McCallum, Founder of Arctic Wire Rope and Supply**

of a company that would fabricate and supply heavy lift rigging products for the oil and gas, mining, and maritime sectors.

The experience of individual entrepreneurs like Eneix and McCallum are too rich in nuance to be captured in anonymous public datasets. Nonetheless, we can make some important generalizations about Alaskan business owners. Thanks to the Census Bureau's Annual Survey of Entrepreneurs (ASE), we can begin to understand more about the motivations, demographics, and capital needs of Alaska's new businesses. ASE is a mandatory survey distributed to business owners of employer firms. In 2015, the ASE survey received over 14,000 responses in Alaska—roughly equal to the number of employer firms in the state—giving it the broadest coverage of any business survey. Unsurprisingly, about half of the state's owners of employer firms consider earning a higher income to be a very important reason for owning a business.



*Employees at Arctic Wire and Rope.  
Photo credit: Arctic Wire and rope.*

Yet nearly as many cite flexible hours and balancing work and family as motivations. To Eneix, this sentiment is familiar. She viewed starting a business as a way to build long-term wealth while also permitting the time and flexibility to raise a family. She and her husband manage the landscaping company together (although she is primary owner). The long off-season allows for plenty of time to spend with their two children.

A large minority of Alaska’s entrepreneurs—nearly 40%—owned a previous business before their current one. This includes Kevin Stadler, who co-founded an Anchorage auto body shop before starting Alaska Industrial Paint. He used the proceeds from selling his stake in that business to finance his current firm. He is among the many serial entrepreneurs applying past startup experience to new endeavors.

Like Stadler, most business owners founded or co-founded their current business, but about a third took the reins of an established operation by purchase, inheritance, or other transfer of ownership.<sup>12</sup> McCallum, a noted mentor of fledgling entrepreneurs, believes that many overlook the opportunity to purchase a business rather than found one. He thinks young entrepreneurs should consider an apprenticeship of sorts under retiring business owners, and buy them out. “The older business owners like me have capital and know-how, but we don’t have as much drive anymore,” he says. “Younger folks might have more drive, but less capital and know-how.”

### Demographics

Alaska’s business owners, like those nationally, are an aging group. Half are 55 or older, and only 6% are younger than 35. The aging of Alaska’s entrepreneurs has important implications for the state economy as many owners will seek to sell their business or pass it on to their children or heirs. Inability to transfer ownership sometimes causes profitable businesses to close when an owner retires, terminating jobs in the process.

Alaska’s business owners are an aging group. Half are 55 or older, and only 6% are younger than 35.

Business Owner’s Current Age	Alaska	US
Under 25	0.7%	0.4%
25 to 34	6%	5%
35 to 44	18%	17%
45 to 54	25%	28%
55 to 64	32%	31%
65 or over	19%	19%

Figure 17: Business owners by age in Alaska and the US. Source: Annual Survey of Entrepreneurs, 2015.



Christina and Jeremiah Eneix, owners of Green Earth Landworks. Photo credit: Green Earth Landworks

These figures capture the current age of the business owner and not their age at the time the firm is founded. National data provides further insights into age dynamics in entrepreneurship. According to Kauffman Foundation, the average US entrepreneur started their first business at about age 40.<sup>13</sup> Even among technology firms—the domain of tech enthusiasts in their 20’s, in the popular imagination—the average age is 39. Americans aged 55 to 64 consistently start businesses at higher rates than those aged 25 to 34.<sup>14</sup> McCallum, Eneix, and Attenly’s Solie all started their businesses before age 30, making them something of an exception. Stadler falls closer to the average, starting his first business at 42 and his second at 45.

In addition to being gray-haired, Alaskan business owners are also more likely to be male and white than the general population of the state.

Alaska beats the national average on female ownership of businesses, but the gender gap remains vast. Male business owners outnumber female business owners by nearly three-to-one in the US. For Alaska, the figure is closer to two-to-one.

Eneix, who is Hispanic, notes the challenges faced by women business owners. Much of Green Earth Landworks’ work comes from general contractors on road and highway construction projects. In the male-dominated construction industry, project managers often assume her husband is in charge. “I used to think they weren’t taking me seriously because I was young, but I think now it has more to do with being a woman.”

Minority business ownership will become an increasingly important topic as Alaska becomes more ethnically diverse. In 2015, whites made up 66% of the state’s population but 89% of business owners. Despite representing nearly 20% of the population, Alaska Natives account for only 3% of business owners. Alaskans of Asian, African American, and Pacific Islander descent are also under-represented among owners of employer firms. Only Alaskans of Hispanic descent appear to own a proportionate share of the state’s businesses.<sup>15</sup>

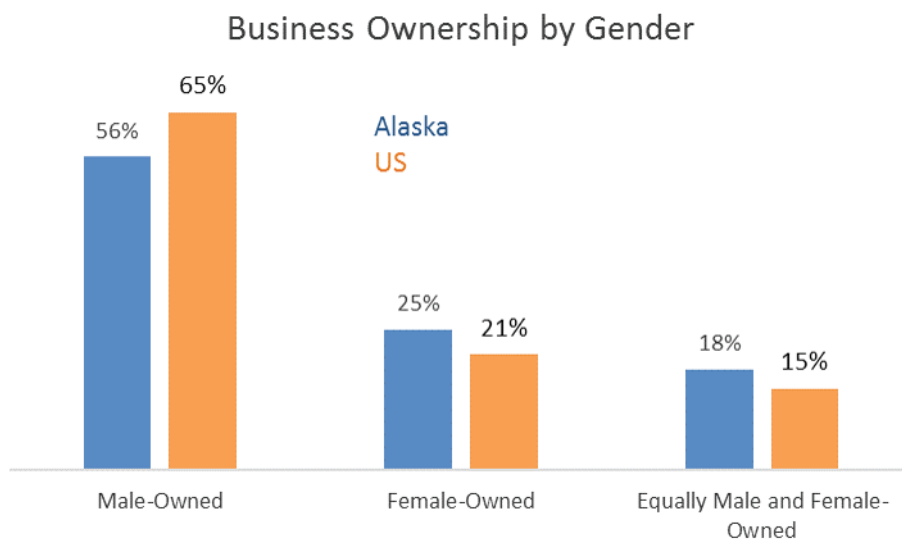


Figure 18: Business ownership by gender in Alaska and the US.  
Source: Annual Survey of Entrepreneurs, 2015.

## Alaska Business Owners by Ethnicity

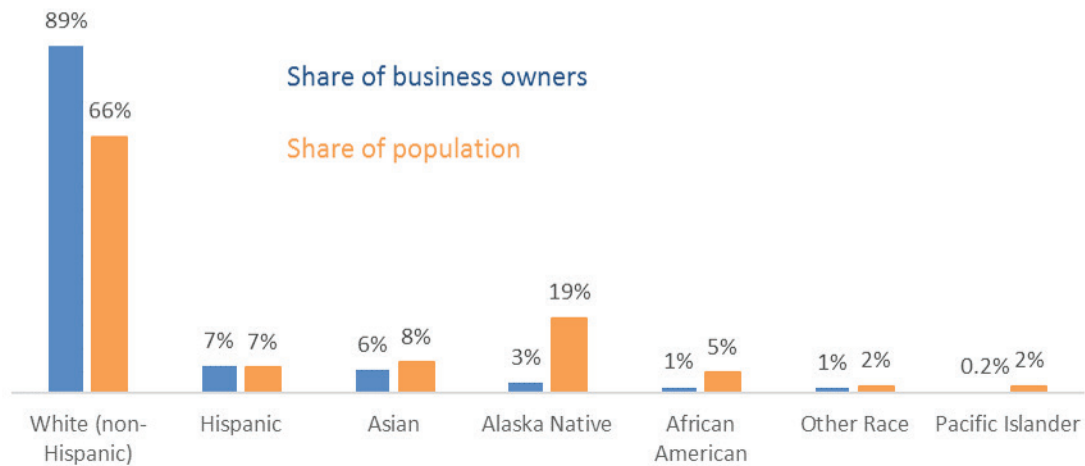


Figure 19: Business owners by ethnicity compared to population shares. Source: Annual Survey of Entrepreneurs, American Community Survey, 2015.

### Capital

After writing his business plan for Arctic Wire Rope and Supply, Eric McCallum was declined for a loan by multiple banks who reviewed it. After his third rejection, McCallum asked the loan officer for candid feedback. Was something wrong with his plan? The banker explained that his loan-to-value ratio was too high, meaning that the bank would not lend unless he found a way to put more capital from another source into the business. The banks preferred to see other money going into the business to reduce their risk. McCallum eventually scraped together enough personal savings to leverage a federally-backed loan from the Small Business Administration.

The subject of access to capital for small and young firms has attracted considerable interest in Alaska in recent years. The founding of the

**Alaska businesses are only about a third as likely to receive risk capital investment as the national average.**

49th State Angel Fund in 2012 at the Municipality of Anchorage and the Innovating Alaska Act in 2016 to allow crowdfunding for equity are just two examples. The Alaska Division of Economic Development and the Anchorage Community Land Trust offer microloans for small businesses. Increasing the availability of capital to businesses at all stages (including startups) lies at the heart of these programs.



As McCallum and countless others have discovered, startup capital is especially difficult to obtain. High failure rates and low (or nonexistent) cash flows make new firms unattractive to commercial banks. This is why, according to ASE figures, personal or family savings are the by far the most common source of funding to start a business (Figure 20). Over 60% of Alaskan business owners “bootstrapped” their firms this way, compared to about 16% who received a commercial loan.<sup>16</sup> Venture capital, frequently associated with high tech startups, is among the least common sources.

Alaska businesses are only about a third as likely to receive risk capital investment as the national average.<sup>17</sup>

Attently falls into the small slice of Alaska businesses taking risk capital. Says co-founder Solie: “Our startup was initially funded by winning pitch competitions, and then we had an angel investor in the state write us a check that let us hire some software engineers and start building product, once we had gathered enough feedback from potential customers.”

Source of Startup Capital	Alaska	US
Personal/family savings of owner(s)	64%	64%
Business loan from a bank or financial institution	16%	16%
Don't know	12%	10%
Personal credit card(s) carrying balances	12%	11%
Personal/family assets other than savings of owner(s)	11%	11%
None needed	8%	10%
Personal/family home equity loan	7%	7%
Business loan/investment from family/friends	6%	5%
Business credit card(s) carrying balances	5%	5%
Other source(s) of capital	4%	4%
Government-guaranteed business loan from a bank or financial institution	3%	2%
Investment by venture capitalist(s)	0.4%	1%
Grants	0.3%	0.3%
Business loan from federal, state, or local government	0.1%	1%

Figure 20: Sources of startup capital for listed by business owners. Source: Annual Survey of Entrepreneurs, 2015.

# The View Ahead: Concluding Thoughts

When Nigel Sharp visited Alaska in January of 2017, he was impressed by the local craft beer and the people he met. A group of economic developers and angel investors had invited him to Anchorage as an expert in entrepreneurial ecosystems. Among the groups he met with--entrepreneurs, investors, civic leaders--he detected an eagerness to learn and absorb lessons from other parts of the world. A UK citizen, Sharp contributed to the emergence of thriving ecosystems in Bulgaria and Armenia. He saw parallels between these countries and Alaska in terms of unrealized potential and “underdog” status. Inspired by his visit, he accepted an offer to become Global Entrepreneur-in-Residence at the University of Alaska Anchorage later that year.

Sharp has founded or co-founded so many businesses that he has lost track of the precise number (just under a dozen, he thinks). His resume includes two venture-backed technology startups, recurring advisory roles for about 40 young firms, and some level of mentorship for hundreds more.

His work in Alaska includes continued mentorship, facilitating events like Startup Weekends and design sprints, and building or recommending new support programs for entrepreneurs. Over a year after that initial visit, Sharp has both first-hand knowledge and an outsider’s perspective on Alaska’s entrepreneurial communities and culture.

“Alaska is at an inflection point I think, it’s about to see trending entrepreneurial growth.” In his short time in the state, he’s seen the number and quality of startups grow, and more participation at networking events. Where the ecosystem used to be led by economic developers and government managers, he now sees entrepreneurs themselves taking charge, guided by a “give first” mantra that encourages entrepreneurs to assist each other.

Sharp is one of many who make up Alaska’s entrepreneurship ecosystem, an informal network of entrepreneurs (current and aspiring), investors, mentors, and support service providers. This web



*UAA Global Entrepreneur in Residence Nigel Sharp speaks to participants in the VOLT49 Renewable Energy Sprint. Photo credit: Ciara Zervantian*

of individuals and organizations seeks to make the state a better place to start and grow innovative businesses. It includes a startup accelerator, university programs, economic development organizations in several communities, coworking spaces, an active startup investor network, and countless individuals. A calendar of Startup Weekends, design sprints, pitches, business plan competitions and other events nurture this sense of community. The Boardroom's Katherine Jernstrom says "events like that have a huge impact in 'normalizing' entrepreneurship as a serious tool to consider in our future economic growth." And as *Alaska: The State of Entrepreneurship* has attempted to show, there are powerful reasons to associate economic growth and entrepreneurship. Startups are the major driver of job creation in Alaska just as they are nationally. The prospect of creating a new generation of high growth companies to strengthen the state's economy is a major reason that so many people and organizations participate in the ecosystem. Entrepreneurship features prominently in statewide and regional economic development plans for this very reason.

As an observer with a global perspective Sharp, for one, sees a future in which Alaska can be the "centerpiece for countries in the [Circumpolar] North to grow and test their business ideas." Alaskan companies could launch technology and products related to cold climates or remote conditions, for instance. He thinks other Arctic countries like Norway and Canada tend to be

*Jennifer Loofbourrow, winner of the 2018 Alaska Business Plan Competition. Photo credit: Ciara Zervantian*

conservative and risk averse with regard to entrepreneurship, compared to Alaska and the frontier mentality of its residents. This could mean scalable, technology-based firms bringing wealth to Alaska.

Perhaps this will one day come to pass. Still, technology firms are not the whole story in entrepreneurship. We have seen that Kevin Stadler created a company that brought 20 jobs to Alaska that otherwise would have existed outside the state. Eric McCallum and Christina Eneix started businesses that are now mainstays in the state. Most of the the 900 to 1,100 employer businesses Alaskans start each year look more like Alaska Industrial Paint, Arctic Wire Rope and Supply, and Green Earth Landworks than Attently. Regardless, they all must be considered the workhorses of Alaska's economic story.



# Notes on Data and Methods

Students of entrepreneurship and its role in job creation have access to a wealth of data from public sources.

The Business Dynamics Statistics (BDS) from the US Census Bureau represents a major advancement in this field. The BDS uses data collected by the Internal Revenue Service (IRS) for all employer firms to determine levels of job creation and destruction, firm births, and firm exits. Data reaches back to 1976, and includes national, state, and Metropolitan Statistical Area (MSA) breakdowns. In Alaska, BDS data is available for the Anchorage/Matanuska-Susitna MSA and Fairbanks North Star Borough, as well as statewide. CED calculated figures for a Non-Metro Alaska category to account for the remainder of the state outside of those two areas. Borough and Census Area tabulations are unavailable through BDS.<sup>18</sup>

One drawback to BDS is the timeliness of data releases, which lag by about three years. As of the release of this report in 2018, the most recent complete data available was for 2014, with partial data covering 2015. To calculate preliminary estimates for startups and job creation in 2015, 2016, and 2017, CED utilized another data source, the Business Employment Dynamics (BED) from the US Bureau of Labor Statistics (BLS).

The BED is derived from the Quarterly Census of Employment and Wages (QCEW), which forms the basis of the Alaska Department of Labor and Workforce Development's official employment figures. BED data is updated monthly but subject to revisions. Like BDS, it provides statewide employment figures for private entities delineated by size and age. However, BED employment data are based on the size and age of establishments rather than firms. (An establishment is an operating location for a firm, as one firm may control multiple establishments.)

Translating establishment figures into firms is the key challenge in using BED to create preliminary estimates for new employer firms and job creation. To do this, CED adapted a technique from Kauffman Foundation researchers.<sup>19</sup> We calculated a ratio of BED establishments to BDS firms, averaged over the five most recent years of BDS data (2010 to 2014). We computed a separate ratio of jobs created by new BED establishments to BDS firms, also averaged over the five most recent years. These two ratios were then applied to BED establishments and jobs to produce estimates for new employer firms and associated job creation.

To obtain information about the characteristics of business owners and founders, we turned to the Census Bureau's Annual Survey of Entrepreneurs. ASE includes demographic information on the age, ethnicity, veteran status, and gender of business owners. It also contains information about capital needs, motivation for starting a business, how the business was acquired, and numerous other fields. The Census Bureau collects ASE data via surveys sent to owners of employer firms. In 2015—the most recent available—over 14,000 Alaska business owners responded to the survey.

Another resource for quantifying businesses and startups in Alaska is the Department of Commerce, Community, and Economic Development's searchable database of business licenses. The database provides names, locations, and industry codes for all business licenses in the state. Since the date of purchase is included for each, business licenses can be a way to measure the intent to start a business in a way that can be compared between years.

# Endnotes

- <sup>1</sup> Based on 2005 to 2014 data from US Census Bureau Business Dynamics Statistics.
- <sup>2</sup> Alaska Department of Labor and Workforce Development.
- <sup>3</sup> Census Bureau, Business Dynamics Statistics, 2005-2014.
- <sup>4</sup> Census Bureau, Business Dynamics Statistics, 2015.
- <sup>5</sup> WHO CREATES JOBS? SMALL VS. LARGE VS. YOUNG John C. Haltiwanger Ron S. Jarmin Javier Miranda <http://www.nber.org/papers/w16300.pdf>
- <sup>6</sup> Alaska Department of Labor and Workforce Development, December 2017 Unemployment Rate.
- <sup>7</sup> Census Bureau, American Community Survey, 2016.
- <sup>8</sup> Alaska Visitor Statistics Program 7, 2016. McDowell Group.
- <sup>9</sup> Alaska Forward: Phase 1 Situational Analysis, 2009. Alaska Partnership for Economic Development.
- <sup>10</sup> The states ranking below Alaska on scapelups include New York, Michigan, and Florida which have large populations. This brings down the national average.
- <sup>11</sup> Bureau of Labor Statistics, Quarterly Census of Employment and Wages. Second quarter, 2017.
- <sup>12</sup> Unless otherwise noted, all business owner data in this section is drawn from the Census Bureau's Annual Survey of Entrepreneurs for 2015, and refers to employer firms.
- <sup>13</sup> Anatomy of an Entrepreneur, Kauffman Foundation. <https://www.kauffman.org/what-we-do/research/2010/05/the-anatomy-of-an-entrepreneur>
- <sup>14</sup> THE COMING ENTREPRENEURSHIP BOOM, 2009. Dane Stangler, Kauffman Foundation.
- <sup>15</sup> Business ownership by ethnicity is taken from ASE, 2015. Ethnicity of Alaska's population as reported by the American Community Survey, 2015.
- <sup>16</sup> Census Bureau, Annual Survey of Entrepreneurs, 2015.
- <sup>17</sup> The term "venture capital" is subject to multiple definitions. Many Alaska startup investors describe themselves as "angel investors," which implies smaller investment amounts. The ASE survey does not distinguish between these categories, but respondents are likely taking the term to mean any form of risk capital invested in early stage firms.
- <sup>18</sup> For more information of the Business Dynamics Statistics, see the BDS page on the Census Bureau website: <https://www.census.gov/ces/dataproducts/bds/>
- <sup>19</sup> Described in Kauffman Index reports. For example, see 2017 Kauffman Index Startup Activity State Report, page 20.

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Eric McCallum, Arctic Wire Rope and Supply

Christina Eneix, Green Earth Landworks

Katherine Jernstrom, The Boardroom

Nigel Sharp, UAA Global Entrepreneur-in-Residence

Eric Solie, Attently



# Appendix: Annual Survey of Entrepreneurs

Independence, higher income, and flexible hours are the most common reasons cited for being a business owner. Sizable numbers also identify flexible hours, balancing work and family, and expression of ideas as motivators to own a business.

Reasons for Owning Business	Alaska	US
Wanted to be my own boss	52%	52%
Greater income	49%	53%
Flexible hours	45%	42%
Balance work and family	43%	45%
Best avenue for ideas	43%	45%
Always wanted to start my own business	36%	38%
Work for self	27%	26%
Friend or family role model	22%	25%
Couldn't find a job	4%	6%
Other	3%	3%

Nearly 40% of ASE respondents had previously owned a business before their current firm. Although a solid majority had no prior business ownership, this speaks to the prevalence of repeat or serial entrepreneurs. Alaska business owners are slightly more likely to have prior ownership experience than their national counterparts.

Prior Business Ownership	Alaska	US
Did not previously own another business	61%	67%
Previously owned another business	39%	34%

Being the owner of a business does not always mean being a founder. About one in five respondents purchased the firm that they currently own. As the Baby Boomer generation retires, an increase in selling or transferring businesses should manifest, as well as business inheritances.

How Business was Acquired	Alaska	US
Founded or started	69%	70%
Purchased	22%	21%
Transfer of ownership or gift	10%	7%
Inherited	3%	4%

The image of the young technology entrepreneur may be pervasive, but relatively few business owners are under the age of 35. Over half of ASE respondents in Alaska as well as nationally are over the age 55. One in five are 65 or older. The greying of entrepreneurs has important implications for the economy. Retiring business owners in Alaska may attempt to sell their firms or transition ownership by other means, like transferring ownership to their children. This presents opportunities for entrepreneurs seeking to buy a firm, but also the risk of closure if the business does not sell.

<b>Business Owner's Current Age</b>	<b>Alaska</b>	<b>US</b>
Under 25	0.7%	0.4%
25 to 34	6%	5%
35 to 44	18%	17%
45 to 54	25%	28%
55 to 64	32%	31%
65 or over	19%	19%