

January 2020

THE ECONOMIC BENEFITS OF

# ALASKA'S CONSTRUCTION INDUSTRY

AND 2020 CONSTRUCTION SPENDING FORECAST



PREPARED FOR  
Associated General Contractors of Alaska/  
Construction Industry Progress Fund



PREPARED BY  
**McDowell**  
GROUP

Dear Alaskans,

The Construction Industry Progress Fund (CIPF) and Associated General Contractors of Alaska (AGC) are proud to present the Alaska Construction Spending Forecast 2020.

We owe a huge debt of gratitude to the McDowell Group, which worked diligently with industry and many AGC members who, in turn, contributed valuable data, information, and images for this publication. This report was truly a team effort that would not have been possible without the contributions of many members of our vital community. Please accept my sincere appreciation.

As a special feature, we are excited to include a study on the economic impact of the construction industry throughout Alaska. As you will see from the study results, construction spending means more than simply the economic investment for our state. It means meaningful wages for working Alaskans. It means families, education, infrastructure, and so much more.

We hope the insights in this report give you a clearer and more accurate picture of the impact of the construction industry in Alaska. As you look through the report, we expect you may have the same response we did when realizing how crucial and vital our industry is for all of us. You might even find yourself saying, just as we did, “Wow – I had no idea just how much the construction industry means to Alaska.” We hope you also share in our commitment to make sure this information does not go unheard.

CIPF and AGC welcome your continued involvement in helping us communicate how integral the construction industry is to all industrial, commercial, residential, and infrastructure development in Alaska—its economic reach spans the entire state, from the smallest village to the largest city. Please join us in sharing the information from this 2020 Alaska Construction Spending Forecast.

AGC is a nonprofit, full-service construction association for commercial and industrial contractors, subcontractors, and associates. CIPF is organized to advance the interests of the construction industry throughout Alaska through a management and labor partnership.



J.A. Fergusson, CIPF Chairman

# The Economic Benefits of Alaska's Construction Industry and 2020 Construction Spending Forecast

PREPARED FOR:

**Associated General Contractors of Alaska/  
Construction Industry Progress Fund**

January 2020

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# Executive Summary

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The construction industry is a critical component of Alaska's economy. It is integral to all industrial, commercial, residential, and infrastructure development in the state. Its economic reach spans the entire state, from the smallest communities to the largest cities. Despite its clearly evident and essential role in Alaska's development, the full economic impact of Alaska's construction industry has not been measured recently.

The Construction Industry Progress Fund (CIPF) and Associated General Contractors of Alaska (AGC) contracted with McDowell Group to forecast construction spending in 2020 and to assess the economic impact of the construction industry in Alaska in 2018.

Economic impacts (also known as "multiplier effects") happen at three different levels:

- **Direct impacts:** jobs and income resulting from employment with construction companies.
- **Indirect impacts:** jobs and income generated when construction companies purchase goods and services from other Alaska firms.
- **Induced impacts:** jobs and income generated when construction workers spend their income or pay taxes in the Alaska economy.

## Construction Industry Employment and Wages

- In 2018, Alaska's construction industry directly employed 23,600 workers who earned a total of \$2.2 billion in labor income.
- Including multiplier effects, statewide construction industry-related employment totaled 41,300 jobs, representing 9% of Alaska's total employment.
- In total, the construction industry accounted for \$3.3 billion in labor income, 10% of all labor income earned in Alaska in 2018.
- Alaska's construction industry paid an average monthly wage of \$6,585 in 2018, 43% above the economy-wide monthly average of \$4,595.



*Project: Southcentral Foundation Construction.  
Photo credit: Neeser Construction Inc.*

## Employment Trends

- Construction industry employment is on the upswing after declining by 2,000 jobs during the recent recession. The industry added 600 jobs in 2018 and its pace through November of 2019 is 700 jobs ahead of the same period in 2018.

- Earthquake repair work and military construction in 2019 have been two principal drivers of recent growth in construction industry employment in Alaska.
- Over the long-term, construction employment is responsive to investment conditions in other industries and the economic health of the Alaska economy overall. Still, the construction industry has been a relatively steady source of 23,000 to 24,000 annual jobs over the past decade.



*Project: Chester Creek-Providence Drive.  
Photo credit: Roger Hickel Contracting, Inc.*

## Construction Spending Forecast

A broad spectrum of public and private sector spending feeds the construction industry in Alaska. Spending on construction in Alaska in 2020 is projected to be \$6.7 billion, down slightly from 2019, including \$4.4 billion in private sector spending (roughly equal to 2019 forecasts) and \$2.3 billion in government spending.

### 2020 Alaska Construction Spending Summary, (\$Million)

Category	Total Spending
<b>Private Construction Spending</b>	<b>\$4,370</b>
Petroleum	2,900
Mining	170
Other Basic Industry	200
Utilities	150
Hospitals/Health Care	300
Other Commercial	300
Residential	350
<b>Public Construction Spending</b>	<b>\$2,280</b>
National Defense	500
Highways and Roads	600
Airports, Ports, and Harbors	350
Education	200
Other Federal Government	180
Other State and Local Government	350
Earthquake Recovery	100
<b>Total</b>	<b>\$6,650</b>

Source: McDowell Group.

State capital spending has bottomed at the minimum necessary to secure matching federal funds. For example, in State Fiscal Year 2020, Alaska's airports received \$215 million in federal funding assistance, matched by \$17 million from state capital grants. Military construction will trend lower as F-35 squadron-related work at Eielson AFB is wrapped up. Looking ahead, the oil industry is a bright spot, with increased oil-related construction expected over the next several years.

## Study Purpose

The Construction Industry Progress Fund (CIPF) and Associated General Contractors (AGC) of Alaska contracted with McDowell Group to measure the statewide economic impact of Alaska's construction industry. While employment and wage data for the construction industry is routinely published by state and federal government agencies, the industry's full economic impacts, including multiplier effects, is rarely measured.

This report provides estimates of the direct, indirect, and induced economic impacts of the construction industry in Alaska along with a range of workforce-related data that profiles the broad range of people employed in the industry.

Finally, spending on construction is projected for 2020, continuing a long sequence of construction industry forecasts sponsored by AGC and CIPF.

## Methodology

The study team collected data and contextual information from a variety of published and unpublished sources. These include the Alaska Department of Labor and Workforce Development (ADOLWD), U.S. Bureau of Labor Statistics, the U.S. Bureau of Economic Analysis (BEA), U.S. Army Corp of Engineers, and U.S. Census Bureau, among others.

To measure multiplier effects (secondary economic impacts) associated with construction industry spending with Alaska businesses and the wages paid to Alaska residents, the study team used the IMPLAN™ (IMpact Analysis for PLANning) input-output modeling system to build economic models for Alaska. The models estimate the jobs and payroll added to the statewide Alaska economy as dollars spent by the industry were subsequently re-spent within the state. Spending data for the modeling was requested from construction companies serving different types of construction needs, including: commercial and industrial structural construction; highways, street and bridge construction; and construction of single-family and multi-family residential structures. The companies were also interviewed to gain better understanding of spending patterns and, where possible, refine modeling assumptions for each type of service.

Ten years of federal and state capital spending data were gathered and analyzed to identify links between government funding for construction projects and industry activity and to help project 2020 public sector construction spending. Review of numerous articles, press releases, and other published materials provided information about current and future construction projects throughout the state. More than 125 private and public organizations were contacted to request information, much of it confidential, about 2019 and 2020 spending.

Additional analysis included a review of U.S. Census Bureau data on state and local government, and private nonresidential construction spending for Alaska. These data include new private residential and non-residential construction, public construction, and improvements to existing buildings and structures, and infrastructure.<sup>1</sup> All inflation adjustments are based on Anchorage Consumer Price Index data from the Bureau of Labor Statistics. AGC members provided photographs used in this report.

## CIPF

The Alaska CIPF was organized to advance the interests of Alaska’s construction industry. The goals of the Fund are to:

- Inform the public of the industry’s contribution to the state and its population.
- Discuss and propose solutions to problems affecting the industry’s efficiency and productivity.
- Establish a system to communicate and educate Alaska students of the employment opportunities in the building and construction industry.
- Develop strategies to attract workers to the construction industry.

CIPF is funded by contributions provided for in collective bargaining agreements and other funding sources.

## AGC Membership

The Alaska chapter of AGC, a non-profit construction industry membership association for commercial and industrial contractors, was formed in 1948. It’s mission is to “advocate for [its] members and the Alaska construction industry; to provide educational opportunities for its members, and to make the public aware of members’ skills, responsibility, and integrity.”<sup>2</sup> Membership is open to union and merit-shop contractors, subcontractors, and associates. AGC is headquartered in Anchorage with an office in Fairbanks.

Not all construction companies are members of AGC, however it represents the largest and most diverse association of construction companies across Alaska – 232 construction firms as of September 2019, including:

- 70 general construction firms (including building, heavy industrial, highway, utility, and demolition); and

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<sup>1</sup> <https://www.census.gov/econ/overview/co0300.html> Accessed September 2019. Composite estimates are based on mail-out/mail-back and interview surveys of selected construction projects and building owners, and estimates developed or compiled from other Census Bureau, Federal agency, and private data sources. Directly measured (survey) estimates account for 65% of total monthly value of construction put in place; other estimates cover the remaining 35% of work done. Projects are selected using stratified systematic sample procedures. Private non-residential, state and local, and federal projects are selected from lists compiled by the McGraw-Hill Construction Company (and supplemented with a small sample of projects in non-permit issuing areas), with strata based on type of construction and estimated project value. Apartment projects are a sub-sample of multi-unit projects identified in the Survey of Construction, with strata based on building location and number of housing units. Owners of selected projects report on the value of work done each month from project start through completion. These 4 surveys currently cover about 8,500 private non-residential; 8,500 State and local; 2,500 apartment; and 700 federal projects each month.

<sup>2</sup> <https://www.agcak.org/>. Accessed November 2019.

- 162 specialty firms in the areas of communications, engineering, transportation, hazardous waste, scaffolding and platforms, quality control, land surveying, asphalt paving, demolition, site preparation, earthwork, grading, piling, landscaping, paving and surfacing, wells, soil stabilization, marine work, fencing, concrete materials, concreting procedures, aggregates, metal materials and methods, structural metal framing, structural steel, finish carpentry, waterproofing, insulation, exterior insulation and finish systems, fireproofing, roofing, entrances and storefronts, windows, gypsum wallboard, tile, carpeting, painting, identifying devices, audio-visual equipment, general construction, elevators, hoists and cranes, HVAC and piping, plumbing systems, electrical, and controls and instrumentation

AGC membership also includes:

- 322 associate firms that provide support services (such as accounting/financial services/insurance, architecture, blue printing, engineering, transportation, and business services) and construction materials (such as materials, equipment sales, leasing and repair, and tools)
- 15 subsidiaries and 23 reciprocal membership organizations such as chambers of commerce, industry associations, and other non-profit organizations.

# Employment in Alaska's Construction Industry

## Total Construction Sector Employment

Alaska's construction industry is an important source of jobs and wages. In 2018, it employed 23,613 workers, including 16,245 wage and salary workers and 7,368 self-employed workers, according to federal government statistics.<sup>3</sup> Construction employment in Alaska in 2018 included 12,358 specialty trade contractor jobs, 6,215 building construction jobs, and 5,040 heavy construction jobs. In 2018, one in 20 jobs (5.1%) in the Alaska economy was a construction job.

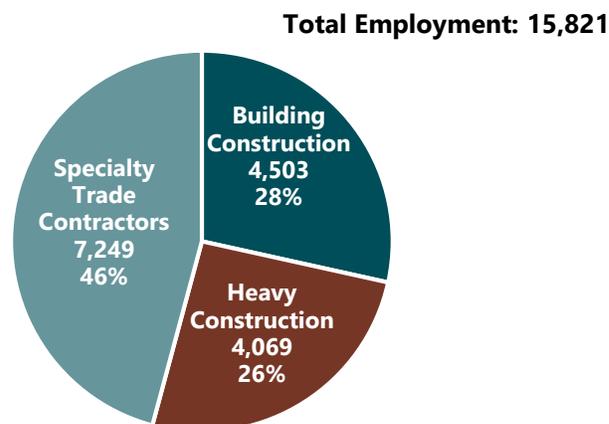
Alaska's construction industry directly generated \$2.2 billion in labor income in 2018.<sup>4</sup> This total included \$1.0 billion in earnings for specialty trade contractors, \$633 million in earnings for workers engaged in construction of buildings, and \$550 million for heavy and civil engineering construction workers. Alaska's construction industry directly accounted for 7% of earnings in Alaska.

## Statewide Wage and Salary Construction Employment

ADOLWD provides a more detailed accounting of wage and salary employment in Alaska's construction industry. In 2018, 2,441 construction companies employed an average of 15,821 wage and salary workers in Alaska, with peak employment of 18,702. Those workers earned a total of \$1.25 billion in wages in 2018.<sup>5</sup>

Specialty trade contractors made up 46% of total construction employment in 2018, followed by building construction workers (28%) and heavy construction employees (26%).

**Figure 1. Construction Employment in Alaska, by Type, 2018**



Source: Alaska Department of Labor and Workforce Development.

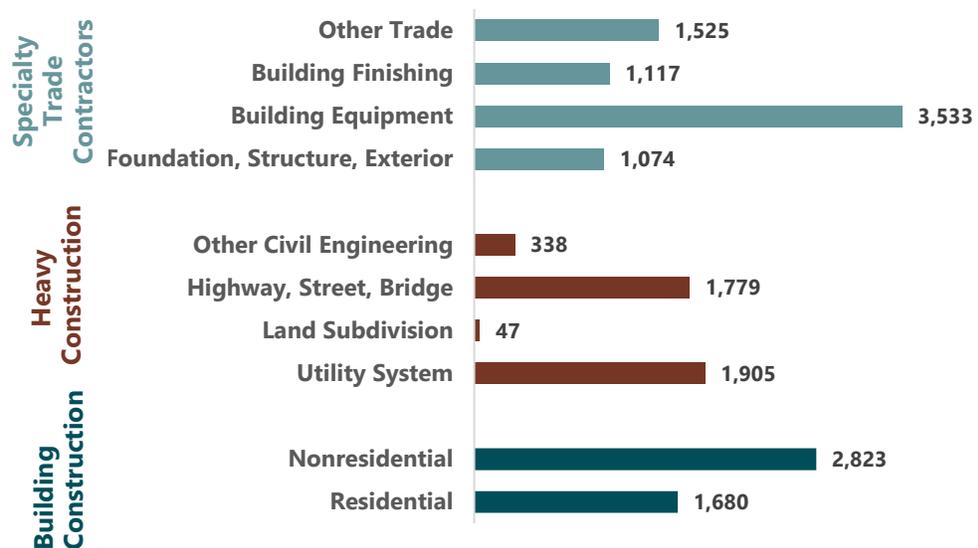
<sup>3</sup> BEA, 2019 SAEMP25N, Total Full-Time and Part-Time Employment.

<sup>4</sup> BEA, 2019 SAINC5N Personal Income by Major Component and Earnings by NAICS Industry.

<sup>5</sup> BEA and ADOLWD measure the number of wage and salary workers in slightly different ways, thus the difference in the numbers provided by each agency. ADOLWD data is considered the more accurate of the two.

Within the three broad categories of construction employment, the “building equipment” specialty trade contractor is the largest (3,533 jobs), followed by “nonresidential” building construction (2,823 jobs).

**Figure 2. Construction Employment in Alaska, by Sub-Sector, 2018**



Source: Alaska Department of Labor and Workforce Development.

## Employment by Local Area

Construction activity occurs throughout Alaska, serving virtually every community and every other industry in the state. One-third of Alaska’s construction companies are in Anchorage and nearly half of construction employment is reported in Anchorage. (Some of those workers may at times be employed elsewhere in Alaska, but employment statistics are reported based on where the business is located). In 2018, 882 construction industry employers reported total employment of 7,461 (average employment for the year, which ranged from a monthly low of 5,920 to a high of 8,684).



*Project: Southcentral Foundation.  
Photo credit: Neeser Construction, Inc.*

Most of the construction firms headquartered outside Anchorage are located in Alaska’s other relatively large economies – Fairbanks, Mat-Su, Kenai Peninsula, and Juneau. Nevertheless, every census area and borough in Alaska has construction industry employers, though ADOLWD confidentiality policies limit publicly reportable data in areas where there are a small number of firms.

**Table 1. Construction Industry Employers and Average Employment in Alaska, By Sub-Sector and By Borough and Census Area, 2018**

Borough/ Census Area	Total Number of Employers	Total Employment (Monthly Avg.)	Building Construction Average Employment	Heavy Construction Average Employment	Specialty Trade Contractors Average Employment
<b>Alaska</b>	<b>2,441</b>	<b>15,821</b>	<b>4,502</b>	<b>4,070</b>	<b>7,249</b>
Aleutians East Borough	3	*	*	*	*
Aleutians West Census Area	6	26	*	*	*
Anchorage Municipality	882	7,461	2,099	1,782	3,580
Bethel Census Area	13	93	86	*	*
Bristol Bay Borough	12	*	*	*	*
Denali Borough	9	28	*	*	*
Dillingham Census Area	7	*	*	*	*
Fairbanks North Star Borough	332	2,797	542	1,011	1,244
Haines Borough	18	88	*	*	11
Hoonah-Angoon Census Area	10	*	*	*	*
Juneau City and Borough	123	643	252	131	259
Kenai Peninsula Borough	247	854	246	110	498
Ketchikan Gateway Borough	66	302	109	75	118
Kodiak Island Borough	40	172	45	59	68
Kusilvak Census Area	2	*	*	*	*
Lake and Peninsula Borough	6	38	*	*	*
Matanuska-Susitna Borough	431	2,213	696	381	1,136
Nome Census Area	12	53	*	23	*
North Slope Borough	20	*	106	*	46
Northwest Arctic Borough	7	*	*	24	22
Petersburg Borough	14	33	12	*	*
Prince of Wales - Hyder Census Area	22	38	*	*	14
Sitka City and Borough	40	154	*	*	82
Skagway Municipality	8	*	23	*	28
Southeast Fairbanks Census Area	14	66	*	*	28
Unknown Location	33	72	37	14	19
Valdez-Cordova Census Area	35	186	29	124	33
Wrangell City and Borough	15	32	*	16	*
Yakutat	2	*	*	*	*
Yukon-Koyukuk Census Area	12	64	10	*	*

\* indicates not disclosable due to confidentiality.

Source: Alaska Department of Labor and Workforce Development, QCEW.

## Statewide Wages

Alaska's 2,441 construction industry employers paid out a total of \$1.25 billion in wages in 2018. Specialty trade contractors made up 40% of total construction wages, followed by heavy construction (34%), and building construction wages (26%).

**Figure 3. Construction Wages in Alaska, by Type, 2018**



Source: Alaska Department of Labor and Workforce Development.

## Total Wages by Local Area

Half of all wages paid in Alaska's construction industry are in Anchorage, \$613 million in 2018. Fairbanks North Star Borough was a distant second at \$243 million, followed by Mat-Su Borough at \$147 million.



*Project: LRDR.  
Photo credit: Davis Block & Concrete.*

**Table 2. Construction Industry Wages in Alaska, By Sub-Sector, By Borough and Census Area, 2018**

Borough/ Census Area	Total Wages	Building Construction Wages	Heavy Construction Wages	Specialty Trade Contractors Wages
<b>Alaska</b>	<b>\$1,250,228,861</b>	<b>\$327,229,041</b>	<b>\$424,080,170</b>	<b>\$498,919,650</b>
Aleutians East Borough	*	*	*	*
Aleutians West Census Area	\$2,524,560	*	*	*
Anchorage Municipality	\$613,505,713	\$177,405,364	\$186,138,136	\$249,962,213
Bethel Census Area	\$4,907,293	\$4,375,522	*	*
Bristol Bay Borough	*	*	*	*
Denali Borough	\$1,494,668	*	*	*
Dillingham Census Area	*	*	*	*
Fairbanks North Star Borough	\$243,212,809	\$34,506,023	\$105,173,955	\$103,532,832
Haines Borough	\$10,786,566	*	*	\$494,809
Hoonah-Angoon Census Area	*	*	*	*
Juneau City and Borough	\$42,508,816	\$13,587,189	\$12,968,305	\$15,953,322
Kenai Peninsula Borough	\$48,977,278	\$11,137,190	\$8,455,752	\$29,384,336
Ketchikan Gateway Borough	\$20,320,901	\$8,115,004	\$6,378,217	\$5,827,680
Kodiak Island Borough	\$11,611,613	\$2,262,464	\$5,643,410	\$3,705,739
Kusilvak Census Area	*	*	*	*
Lake and Peninsula Borough	\$2,750,267	*	*	*
Matanuska-Susitna Borough	\$146,909,551	\$44,945,978	\$37,315,604	\$64,647,969
Nome Census Area	\$5,266,677	*	\$3,508,592	*
North Slope Borough	*	\$10,764,717	*	\$4,108,127
Northwest Arctic Borough	*	*	\$1,354,528	\$2,534,401
Petersburg Borough	\$1,998,822	\$567,028	*	*
Prince of Wales - Hyder Census Area	\$1,545,077	*	*	\$597,178
Sitka City and Borough	\$10,903,995	*	*	\$6,649,131
Skagway Municipality	*	\$1,318,483	*	*
Southeast Fairbanks Census Area	\$3,908,315	*	*	\$2,541,557
Unknown Location	\$7,767,336	\$4,233,785	\$1,486,130	\$2,047,421
Valdez-Cordova Census Area	\$19,847,625	\$1,803,662	\$16,439,258	\$1,604,705
Wrangell City and Borough	\$1,216,642	*	\$641,576	*
Yakutat City and Borough	*	*	*	*
Yukon-Koyukuk Census Area	\$6,567,460	\$344,061	*	*

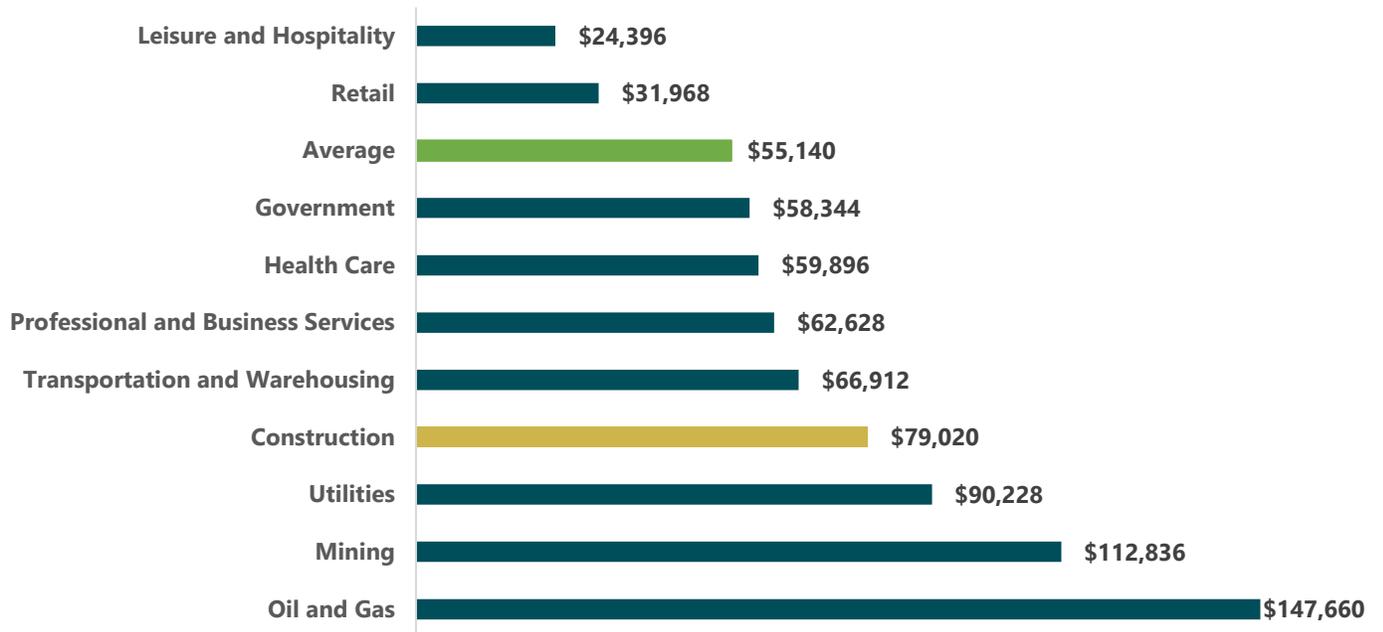
\* indicates not disclosable due to confidentiality issues.

Source: Alaska Department of Labor and Workforce Development.

## Average Wage Rates

Only a few Alaska industry sectors have higher average annual wages than construction (among them oil and gas, mining, and utilities). The prevalence of overtime pay due largely to long hours during seasonal construction periods contributes to higher wages. In 2018, the average wage for a construction worker was \$79,020, 43% higher than the overall statewide average wage (\$55,140).

**Figure 4. Average Annual Wage Comparison in Alaska, By Selected Sectors, 2018**



Source: Alaska Department of Labor and Workforce Development.

## Seasonality of Construction Employment

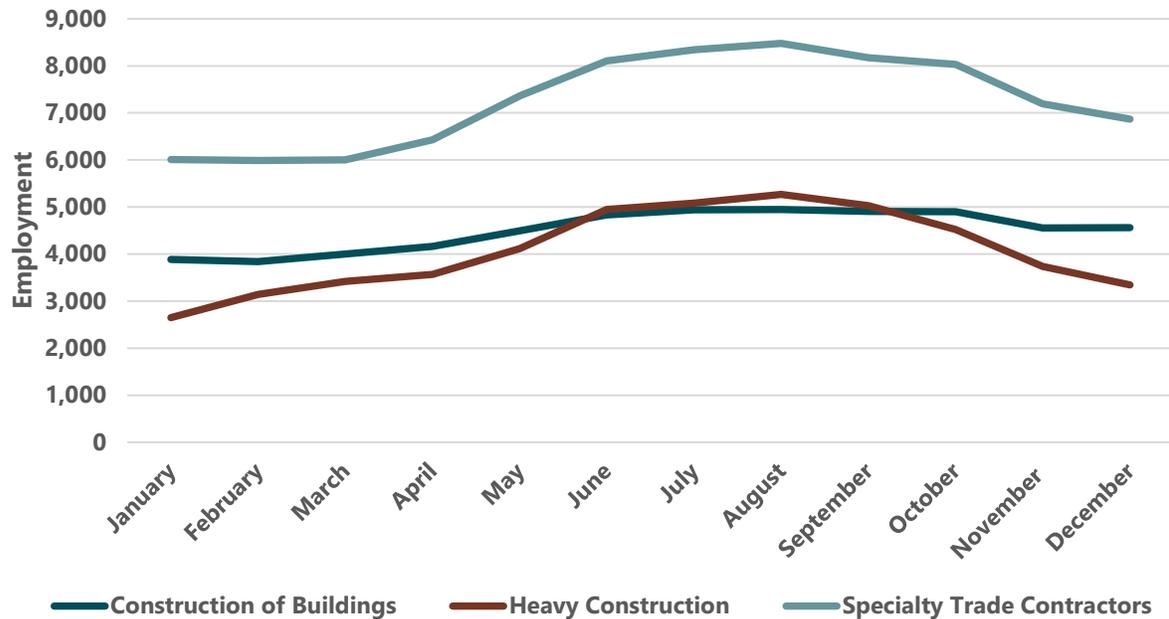
Construction employment in Alaska tends to be seasonal, with peak summer employment about 50% higher than the winter low-point. Nevertheless, the industry is an important source of jobs year-round. In 2018, there were no fewer than 12,545 jobs at any point in the year. The heavy-construction sector, which includes road construction, is the most seasonal, with employment doubling between January and August.

**Table 3. Construction Industry Employment in Alaska by Month, 2018**

Month	Total Employment	Building Construction	Heavy Construction	Specialty Trade Contractors
Jan	12,545	3,887	2,649	6,009
Feb	12,968	3,840	3,139	5,989
March	13,428	4,002	3,421	6,005
April	14,157	4,164	3,568	6,425
May	15,966	4,497	4,113	7,356
June	17,875	4,832	4,945	8,098
July	18,368	4,940	5,089	8,339
August	18,702	4,947	5,273	8,482
Sept	18,118	4,910	5,036	8,172
Oct	17,464	4,898	4,524	8,042
Nov	15,488	4,554	3,738	7,196
Dec	14,777	4,558	3,347	6,872
<b>Annual Average</b>	<b>15,821</b>	<b>4,502</b>	<b>4,070</b>	<b>7,249</b>

Source: Alaska Department of Labor and Workforce Development, QCEW.

**Figure 5. Monthly Construction Employment in Alaska, by Type, 2018**



Source: Alaska Department of Labor and Workforce Development.

## Indirect and Total Employment (Multiplier Effects)

Industry spending and employment impacts occur at three levels, labelled by economists direct, indirect, and induced. The second two, indirect and induced impacts, are also known as “multiplier effects.”

- **Direct impacts:** jobs and income resulting from employment at the construction companies, themselves (described above).
- **Indirect impacts:** jobs and income generated when construction companies purchase goods and services from other Alaska firms. This includes purchases of building supplies and other construction materials, tools and equipment, repair services, transportation and lodging services (for remote projects), accounting and other professional services, and other types of purchases.
- **Induced impacts:** jobs and income generated when construction workers spend their income in the Alaska economy. Induced jobs are created in retail businesses such as grocery stores, car dealerships and service stations, doctor’s offices, transportation providers, and a wide range of other businesses across the economy. Induced impacts also result from taxes paid by construction workers that are used to support jobs in local schools and other public services.

IMPLAN is a widely used computer model for analyzing the multiplier effects of industrial activity. For the construction industry, multiplier effects vary with the type of construction and the location of that construction. IMPLAN analysis indicates that for every 100 direct jobs in the construction industry in Alaska, another 75 indirect and induced jobs are generated in the support sector and the community (a jobs multiplier of 1.75). Based on that multiplier, total direct, indirect, and induced Alaska employment associated with the construction industry in 2018 is estimated at just over 41,300 jobs.

The labor income multiplier for Alaska’s construction industry is estimated at 1.5, meaning that for every \$100,000 in wages paid by construction firms, another \$50,000 in labor income is generated in the support sector and the community. Based on that multiplier, total direct, indirect and induced labor income associated with Alaska’s construction industry is estimated at \$3.3 billion in 2018.

**Table 4. Construction Industry-Related Employment and Labor Income Impacts in Alaska, 2018**

<b>Impacts</b>	<b>Employment</b>	<b>Labor Income</b>
Direct	23,613	\$2.2 billion
Indirect & Induced	17,710	\$1.1 Billion
<b>Total</b>	<b>41,323</b>	<b>\$3.3 billion</b>

Sources: Direct impacts, U.S. Bureau of Economic Analysis. Indirect and induced impacts, McDowell Group estimates.

Statewide construction industry-related employment of 41,323 represented 9% of Alaska’s total employment of 459,178 in 2018.

Construction industry activity in 2018 directly or indirectly accounted for \$3.3 billion in labor income, 10% of Alaska’s total labor income of \$31.6 billion.

# Construction Funding Sources and Trends

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The economic impact of construction activity in Alaska is the result of private sector investment in construction projects, and federal, state, and local government spending on a wide range of public infrastructure and facilities projects. This chapter describes key sources of construction funding and presents data on recent spending trends.

## Federal Construction Spending

Federal construction funding can be defined under two categories:

1. U.S. Federal Contracts Related to Construction – support for both U.S. military (i.e., U.S. Army Corps of Engineers) and non-military infrastructure initiatives that require no matching funds.
2. U.S. Federal Assistance Related to Construction – funding that requires some level of matching support from state or local government.

## U.S. Federal Contracts

The following table shows nine years of federal-contract construction projects in Alaska in 14 different categories that do not require matching funds. Examples from federal fiscal year (FFY) 2019 include:

- LADR power plant construction at Clear Air Force Station (\$129 million)
- Missile Field #4 infrastructure at Fort Greely (\$89 million)
- Missile maintenance facility construction (\$19 million)
- Diesel Bulk Storage at Sparrevohn Air Force Station long range radar site (southwest of Fairbanks) (\$12 million)
- Moose Lake housing area utility corridor at Eielson Air Force Base (\$9 million)

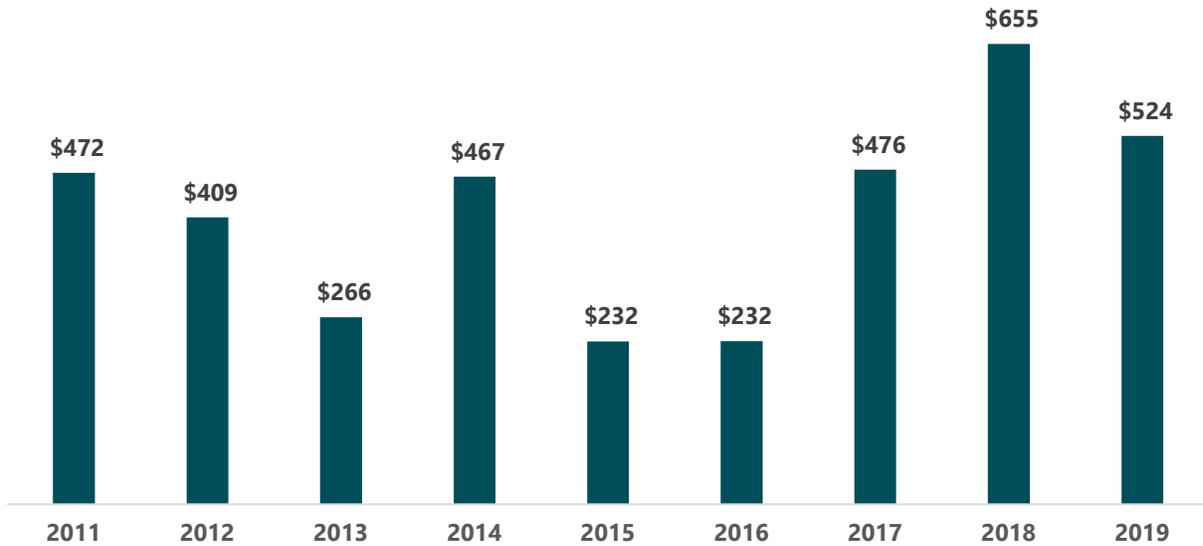
Federal contract construction budgets totaled \$524 million in FFY2019. Total budgets averaged \$415 million over the 9-year period, ranging from a low of \$232 million (FFY2015) to a higher of \$655 million (FFY2018).

**Table 5. U.S. Federal Contracts Related to Construction in Alaska, FFY2011-2019**

Category	2011	2012	2013	2014	2015	2016	2017	2018	2019
Commercial and Institutional Building Construction	\$249,958,041	\$230,417,172	\$161,053,129	\$216,210,365	\$123,978,209	\$111,852,945	\$315,830,356	\$503,963,091	\$197,778,653
Power and Communication Line and Related Structures Construction	\$11,582,408	\$14,326,785	\$18,672,020	\$14,217,906	\$8,531,581	\$6,192,101	\$9,067,467	\$249,224	\$137,144,612
Other Heavy and Civil Engineering Construction	\$23,090,584	\$46,300,758	\$22,372,157	\$19,697,698	\$24,480,319	\$8,950,804	\$21,410,345	\$35,635,731	\$97,758,707
Highway, Street, and Bridge Construction	\$75,204,308	\$34,311,399	\$32,720,205	\$44,413,268	\$13,615,390	\$46,531,384	\$36,655,532	\$29,596,170	\$32,624,566
Water and Sewer Line and Related Structures Construction	\$14,034,587	\$10,860,479	\$2,100,814	\$26,905,316	\$8,725,161	\$7,822,791	\$19,940,832	\$54,552,409	\$23,395,945
Electrical Contractors and Other Wiring Installation Contractors	\$2,097,976	\$1,589,176	\$710,731	\$2,794,605	\$3,877,789	\$4,197,220	\$9,581,197	\$4,935,213	\$9,306,479
Oil and Gas Pipeline and Related Structures Construction	\$5,383,855	\$3,563,731	\$3,315,935	\$4,809,162	\$3,163,992	\$2,645,733	\$5,357,980	\$1,616,429	\$7,045,499
Site Preparation Contractors	\$3,296,042	\$11,816,414	\$889,032	\$17,027,547	\$5,109,107	\$7,675,764	\$8,651,664	\$2,970,071	\$5,047,325
Residential Remodelers	\$18,592,811	\$1,965,304	\$1,082,959	\$974,845	\$1,374,073	\$(10,912)	\$2,297,721	\$1,604,417	\$3,636,147
Other Services to Building and Dwellings	\$2,208,768	\$1,736,709	\$2,016,425	\$2,387,399	\$2,538,482	\$1,598,854	\$729,680	\$2,367,042	\$1,959,061
Plumbing, Heating, and Air Conditioning Contractors	\$16,664,957	\$6,951,071	\$4,508,130	\$6,200,455	\$3,629,536	\$1,966,306	\$1,903,474	\$4,609,350	\$1,791,923
Roofing Contractors	\$3,772,993	\$640,108	\$1,066,525	\$1,470,983	\$1,077,077	\$1,960,604	\$14,631,243	\$3,022,033	\$1,576,636
Industrial Building Construction	\$40,193,006	\$34,447,324	\$10,702,144	\$97,127,781	\$28,046,186	\$18,756,094	\$17,896,111	\$3,022,568	\$1,170,380
All Other	\$6,115,566	\$9,772,373	\$5,140,924	\$12,478,739	\$3,870,851	\$12,161,617	\$12,437,619	\$7,276,822	\$4,261,355
<b>Total</b>	<b>\$472,195,900</b>	<b>\$408,698,803</b>	<b>\$266,351,130</b>	<b>\$466,716,069</b>	<b>\$232,017,754</b>	<b>\$232,301,305</b>	<b>\$476,391,223</b>	<b>\$655,420,569</b>	<b>\$524,497,289</b>

Source: U.S.A. Spending.gov. Compiled by McDowell Group.

**Figure 6. Total U.S. Federal Contracts Related to Construction in Alaska, \$Millions, FFY2011-2019**



Source: U.S.A. Spending.gov. Compiled by McDowell Group.

**U.S. ARMY CORPS OF ENGINEERS**

The U.S. Army Corps of Engineers (USACE) Alaska District has three primary programs, military construction, water resources development, and environmental cleanup/restoration activities. USACE also regulates activities in waters and wetlands under authority of the Clean Water Act and the Rivers and Harbors Act. Not all the Alaska District workload is associated with projects and spending in Alaska. The Alaska District also supports the Pacific Command in Asia with humanitarian assistance and security assistance programs, rebuilding infrastructure in Afghanistan, and overseas hurricane and typhoon recovery assistance.

Military construction budgets increased from \$157 million in FFY2016 to \$210 million in FFY2019, with the F-35 Operational Beddown at Eielson Air Force Base in Fairbanks accounting for most military spending in this period.

A similar surge in missile defense construction spending was seen at Fort Greely for the fourth field of underground missile silos, as well as Long Range Discrimination Radar for Clear Air Force Station’s mission control facility.

**Table 6. U.S. Army Corps of Engineers Annual Spending in Alaska, By Category (\$Millions) FFY2016-2019**

Federal Fiscal Year	Military Construction	Missile Defense	Sustainment, Restoration, and Modernization	Civil Works	Environmental	Inter-agency	Total
2016	\$157	\$64	\$0	\$89	\$85	\$112	\$507
2017	\$175	\$125	\$50	\$40	\$75	\$100	\$565
2018	\$200	\$150	\$50	\$50	\$100	\$50	\$600
2019	\$210	\$180	\$80	\$40	\$110	\$20	\$640

Source: U.S. Army Corps of Engineers.

USACE publishes an index of construction cost factors for military construction for all states. Only Hawaii posted higher costs than Alaska for military construction. With 1.0 as the national average, Alaska’s costs were 2.13 (or more than double the national average).

**Table 7. U.S. Army Corps of Engineers Area Cost Factors For Military Construction, Top 10 States**

Rank	State	Index
1	Hawaii	2.40
<b>2</b>	<b>ALASKA</b>	<b>2.13</b>
3	California	1.22
4	New Jersey	1.20
5	Rhode Island	1.20
6	Massachusetts	1.19
7	Nevada	1.18
8	Connecticut	1.12
9	New York	1.12
10	North Dakota	1.12
<b>National Average</b>		<b>1.00</b>

Source: U.S. Army Corps of Engineers, Accessed April 24, 2018.

## U.S. Federal Assistance

The following table presents U.S. federal assistance related to construction for highway planning and construction, airport improvements, and other programs. This assistance requires some match by state government or others (such as local governments). The table shows both federal and matching components.

Examples of federal assistance budget in FFY2019 include:

- Seward Highway (Milepost 75-90) rehabilitation (\$45 million)
- Dalton Highway (Milepost 379-397) reconstruction (\$34 million)
- Juneau Airport improvements (\$25 million)
- Kivalina evacuation and school site road access (\$22 million)
- Tok Cutoff (Milepost 38-50) rehabilitation (\$17 million)
- Ketchikan North Tongass Bridge improvements (\$11 million)
- Alaska Marine Highway System Ferry Terminal improvements (\$9 million)
- Gustavus Causeway replacement (\$8 million)

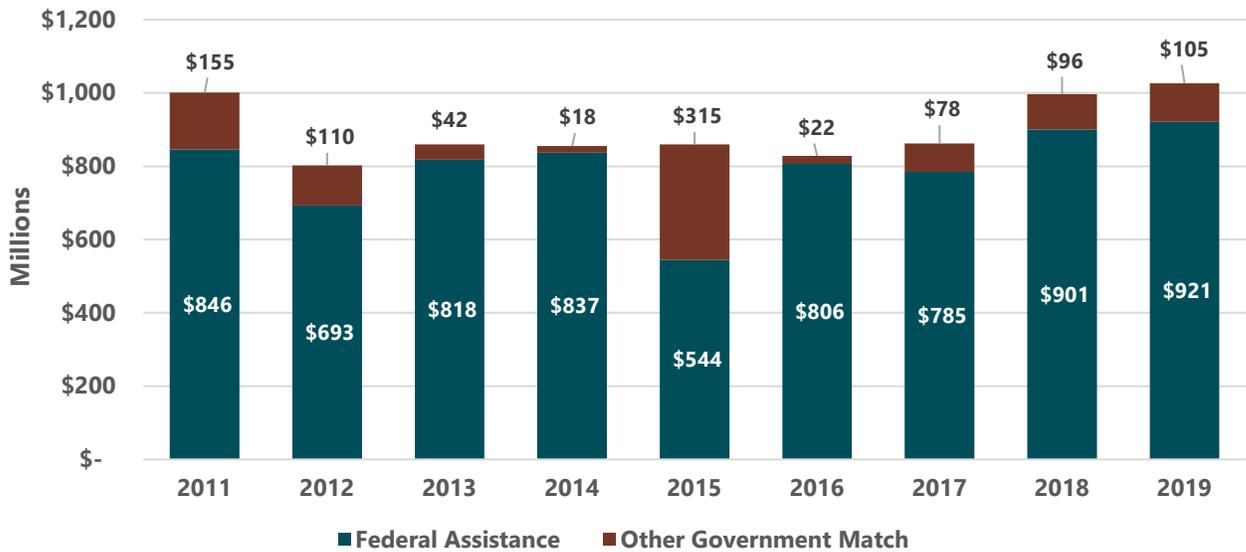
This federal assistance totaled \$921 million in FFY2019. Since FFY2011, federal funding has averaged \$795 million. State and federal matches totaled \$105 million in FFY2019 and averaged \$105 million since FFY2011.

**Table 8. U.S. Federal Assistance Related to Construction and Other Government Funding Match, Alaska, FFY2011-2019**

Category	2011	2012	2013	2014	2015	2016	2017	2018	2019
<b>U.S. Federal Assistance Related to Construction</b>									
Highway Planning and Construction	\$543,307,940	\$434,080,843	\$598,139,566	\$607,832,497	\$333,863,364	\$550,309,407	\$541,090,940	\$611,721,330	\$656,220,912
Airport Improvement Program	\$226,545,070	\$219,042,468	\$191,091,594	\$197,077,040	\$201,557,517	\$211,443,762	\$209,725,375	\$240,207,159	\$214,687,688
All Other	\$76,252,199	\$39,737,126	\$28,393,238	\$32,290,358	\$8,932,956	\$44,741,572	\$33,746,317	\$48,929,675	\$50,296,441
<b>Sub Total</b>	<b>\$846,105,209</b>	<b>\$692,860,437</b>	<b>\$817,624,398</b>	<b>\$837,199,895</b>	<b>\$544,353,837</b>	<b>\$806,494,741</b>	<b>\$784,562,632</b>	<b>\$900,858,164</b>	<b>\$921,205,041</b>
<b>State and Local Government Match</b>									
Highway Planning and Construction	\$142,491,093	\$95,086,117	\$29,262,296	\$2,181,637	\$299,874,452	\$6,276,575	\$60,983,130	\$76,820,213	\$88,451,663
Airport Improvement Program	\$12,542,123	\$14,761,928	\$12,869,324	\$15,539,210	\$15,547,988	\$15,883,713	\$16,756,576	\$19,375,323	\$16,971,226
<b>Sub Total</b>	<b>\$155,033,216</b>	<b>\$109,848,045</b>	<b>\$42,131,620</b>	<b>\$17,720,847</b>	<b>\$315,422,440</b>	<b>\$22,160,288</b>	<b>\$77,739,706</b>	<b>\$96,195,536</b>	<b>\$105,422,889</b>
<b>Total</b>	<b>\$1,001,138,425</b>	<b>\$802,708,482</b>	<b>\$859,756,018</b>	<b>\$854,920,742</b>	<b>\$859,776,277</b>	<b>\$828,655,029</b>	<b>\$862,302,339</b>	<b>\$997,053,701</b>	<b>\$1,026,627,930</b>

Source: U.S.A. Spending.gov. Compiled by McDowell Group.

**Figure 7. Total U.S. Federal Assistance Related to Construction and Other Government Funding Match, Alaska, (\$Millions), FFY2011-2019**

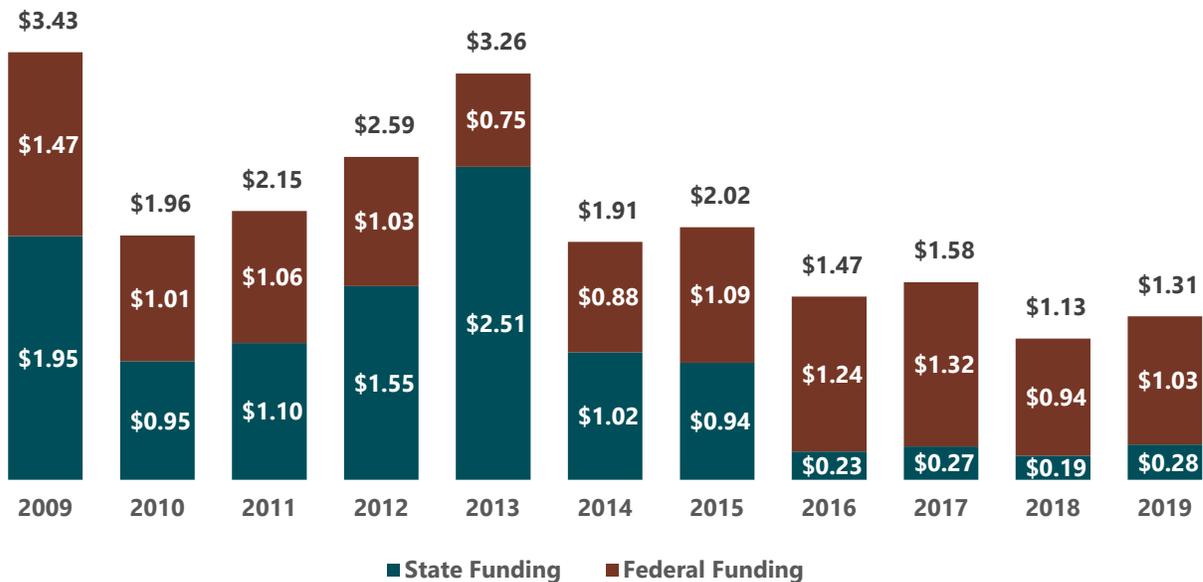


Source: U.S.A. Spending.gov. Compiled by McDowell Group.

## State Government Capital Budget Trends

Spending on State of Alaska capital projects is an important source of construction activity in Alaska. State capital budget appropriations for construction (including federal funds) have been at historically low levels in recent years, and well below peak years of over \$3 billion. State fiscal year (SFY) 2018 saw the smallest capital budget at \$1.1 billion, including \$190 million in state funding support.

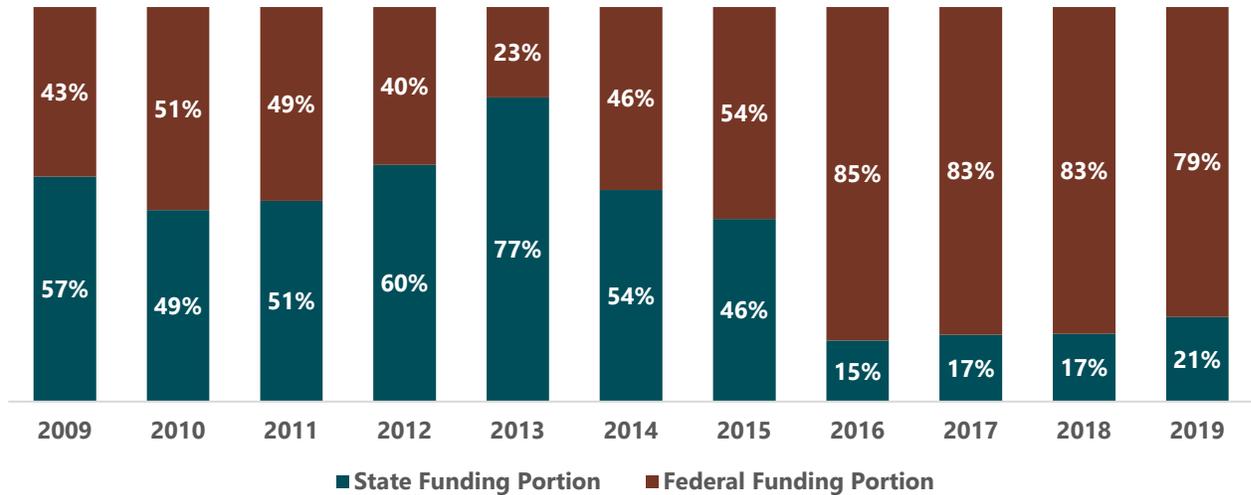
**Figure 8. State and Federal Funding of State of Alaska Capital Spending on Construction Projects, (\$Billions), State Fiscal Year 2009-2019**



Source: Office of Management and Budget, Office of the Governor, State of Alaska.

The state's portion of the capital budget relative to federal funding since SFY2016 is down sharply. While it was around 50% (or higher) through 2015, it has since been in the 15-20% range.

**Figure 9. Percent Distribution of State and Federal Funding of State of Alaska Capital Spending on Construction Projects, SFY2009-2019**

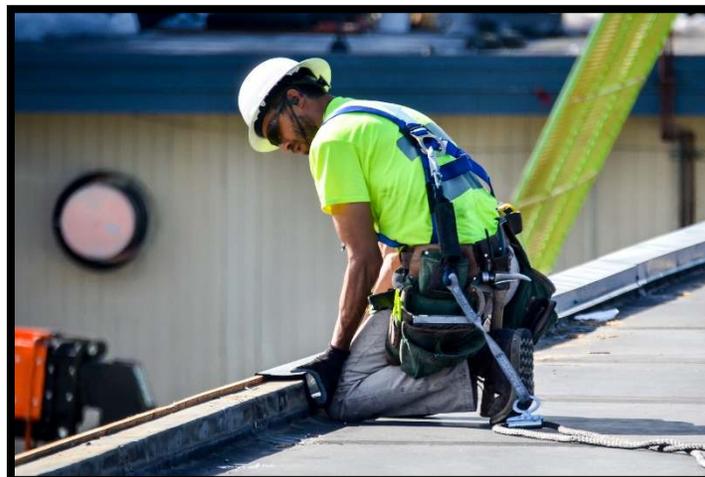


Source: Office of Management and Budget, Office of the Governor, State of Alaska.

## Residential Construction

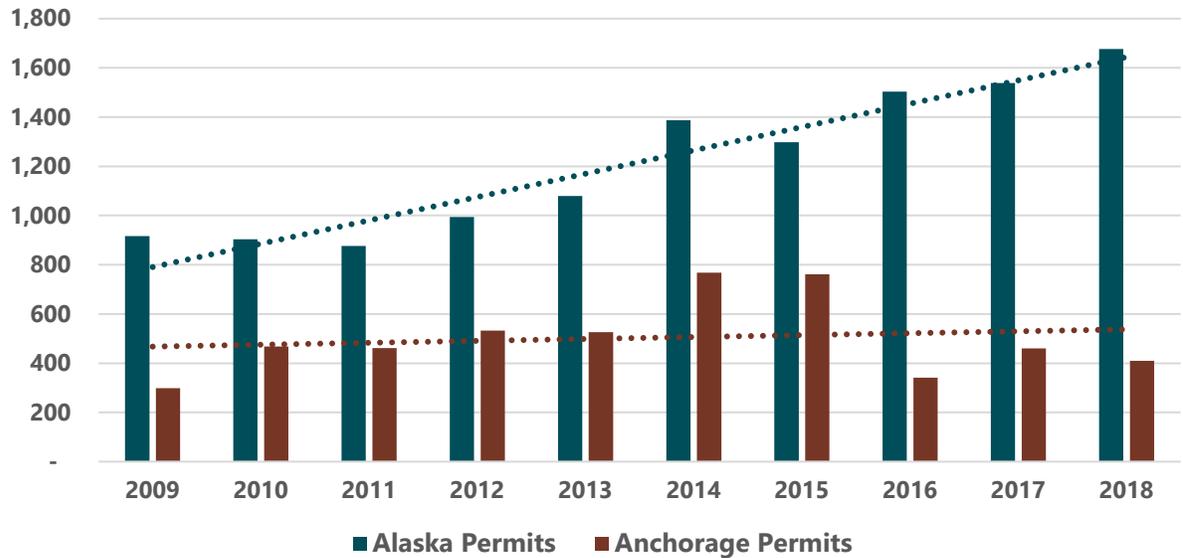
The U.S. Census Bureau tracks permits for new privately-owned housing units. In 2018, 1,677 housing units were permitted for construction in Alaska, including 1,227 single-family dwellings (or 73% of total units). Other units included 110 duplexes, 61 triplexes or 4-plexes, and 279 structures with 5 units or more. The permitted value of these units was \$325 million, down 17% from a peak of \$395 million in 2017.

Between 2009 and 2018, Anchorage represented 38% of all new housing in Alaska, roughly approximating the city's proportion of the state population. New housing starts in Anchorage represented 41% of all new housing units permitted in Alaska from 2009 to 2015, however, from 2016 to 2018, Anchorage units represented an average of just 26% of new units permitted.



Project: Rogers Park School.  
Photo credit: Swalling General Contractors, LLC; Hook, LLC.

**Figure 10. Number of New Housing Units Permits in Anchorage and Alaska Overall, 2009-2018**



Source: U.S. Census Bureau and Municipality of Anchorage.

## Trends in Value of Construction “Put in Place”

The U.S. Census Bureau collects information on construction activity throughout the country, measuring spending from the time a project’s construction starts to when it ends. These data document, on average, 60% of the value to construct a multi-family building (such as an apartment or condominium) is expended a year after construction started; and it takes an average of 40 months to complete. For state or local government construction projects, it may take over four years to complete.

**Table 9. Percent Distribution of Construction Value from Start to Completion, U.S. Average**

Time After Start	Private Nonresidential Construction	State and Local Government Construction	Private Multifamily Construction
12 months	68.2%	68.7%	60.4%
24 months	90.1%	90.2%	95.1%
36 months	98.0%	96.7%	99.8%
48+ months	100.0%	100.0%	100.0% <sup>a</sup>

<sup>a</sup> 40 months after start.

Source: U.S. Census Bureau, <https://census.gov/construction/c30/length.html>.

## State and Local Government, and Private Nonresidential Construction Spending Trends

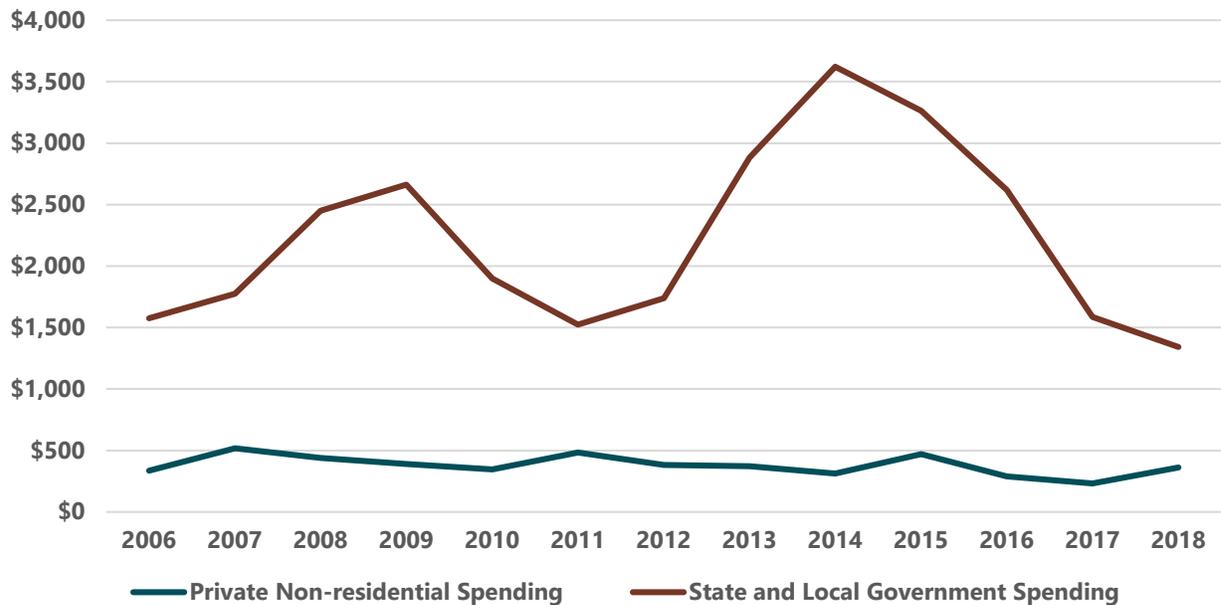
The U.S. Census Bureau also publishes data on state and local government spending, and private nonresidential construction spending by state. These data include all work done on new private residential and non-residential construction, public construction, and improvements to existing buildings and structures, and infrastructure.<sup>6</sup>

<sup>6</sup> <https://www.census.gov/econ/overview/co0300.html> (accessed September 2019)

These data do not include the value of federal government or residential (private or public) construction put in place.

Private nonresidential construction spending has been relatively stable between 2006 and 2018, averaging about \$380 million per year. During the same period, state and local government spending for construction fluctuated substantially, with peaks in 2009 at \$2.3 billion and in 2014 at \$3.6 billion, after which it fell to its lowest level, an estimated \$1.3 billion, in 2018.

**Figure 11. Annual Value of Construction Put in Place, Alaska, (\$Million), 2006-2018**



Source: U.S. Census Bureau.

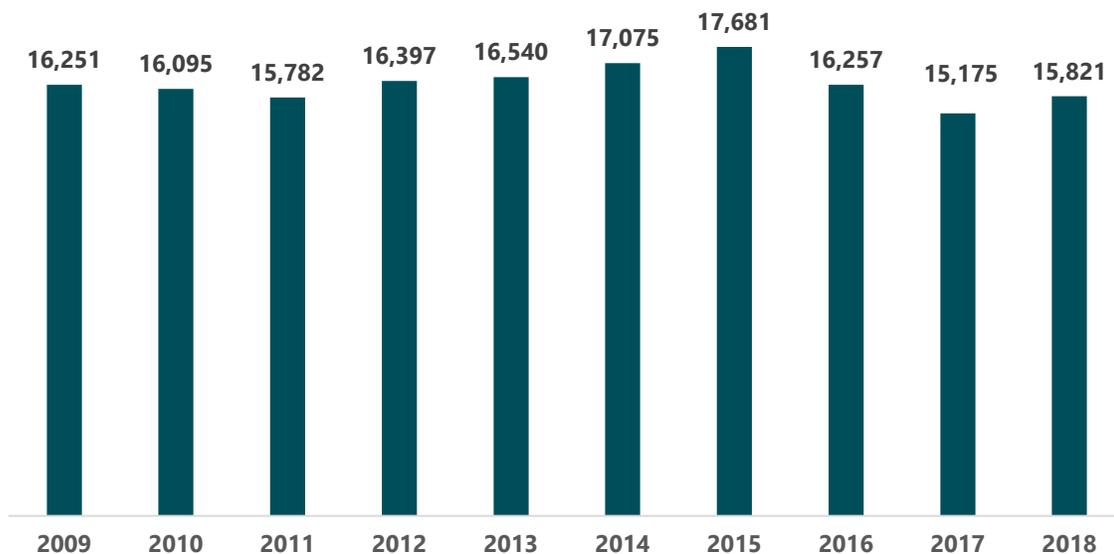
# Construction Sector Employment and Income Trends

## Construction Sector Wage and Salary Employment Trends

Approximately 2,460 construction businesses reported employment in 2018, with an annual average (not including self-employed proprietors) of 15,821 employees. This is a 4.3% increase over 2017's total of 15,175 employees.

Construction industry employment represented 4.8% of Alaska's total employment (326,924) in 2018. Overall, construction employment as a percent of Alaska's total employment has been stable at approximately 5-6% since 2009. However, the industry lost more than 2,400 jobs in 2016 and 2017. A total of 600 jobs were added in 2018, and preliminary 2019 data indicates additional growth.

**Figure 12. Average Annual Employment in Alaska's Construction Sector, 2009-2018**

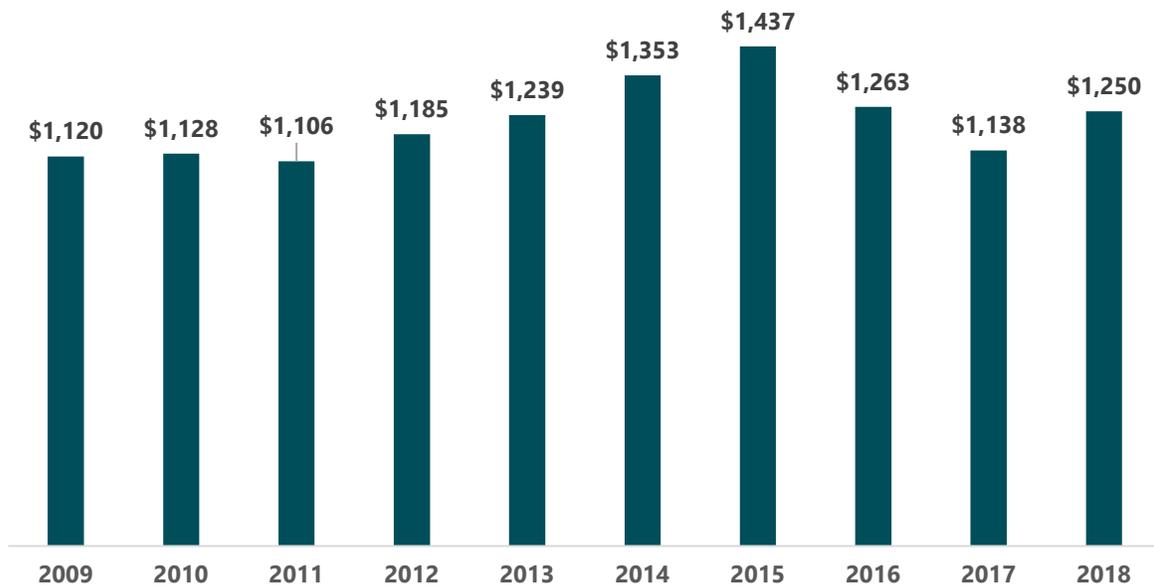


Source: Alaska Department of Labor and Workforce Development.

## Construction Sector Wages Trend

In 2018, the construction industry paid \$1.25 billion in wages, a 9.9% increase over 2017. Peak wages for the past decade occurred in 2015 at \$1.44 billion and the lowest level was \$1.14 billion in 2017.

**Figure 13. Annual Total Wages in Alaska’s Construction Sector, (\$Millions), 2009-2018**



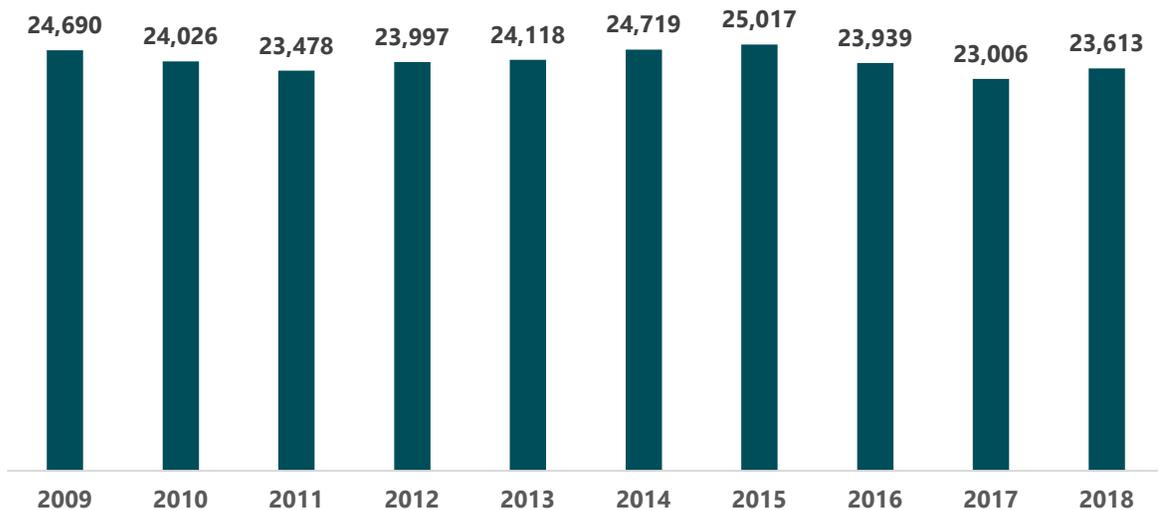
Source: Alaska Department of Labor and Workforce Development.

### **Construction Sector Employment Including Self-Employed Workers**

Not everyone who works in the construction industry is employed by a company. Typically, self-employed workers make up about 30% of the workforce.

Over the past decade, construction employment peaked in 2015 at 25,017 full- and part-time workers (including self-employed). The low point was in 2017 where employment had fallen to 23,006. Employment rebounded somewhat in 2018 to 23,613, a 2.6% increase from 2017.

**Figure 14. Construction Sector Employment Including Self-Employed Workers, Alaska, 2009-2018**

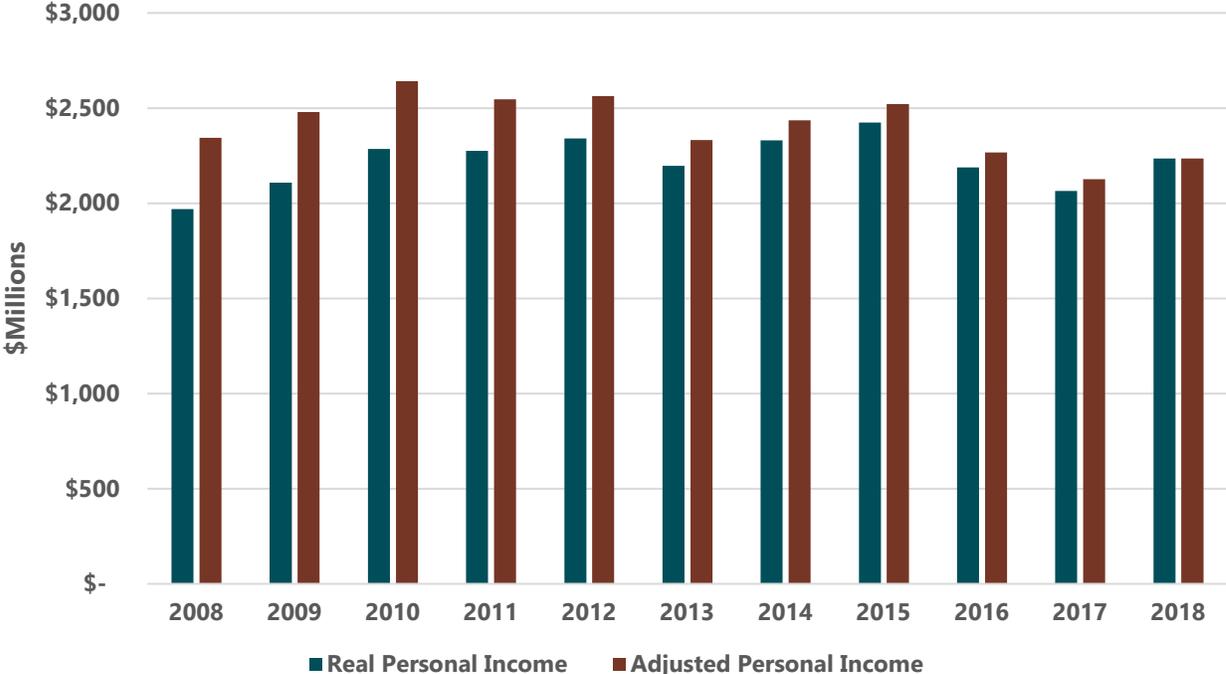


Source: U.S. Bureau of Economic Analysis.

# Construction Sector Personal Income Including Self-Employed Workers

In 2018, total personal income (from wages, salaries, and sole proprietorships) was \$2.24 billion, about 8% above 2017. Income in 2018 is slightly below the inflation-adjusted 2008 value of \$2.3 billion.

**Figure 15. Construction Sector Personal Real and Adjusted (\$2018) Income, Alaska, \$Millions, 2009-2018**



Source: U.S. Bureau of Economic Analysis.

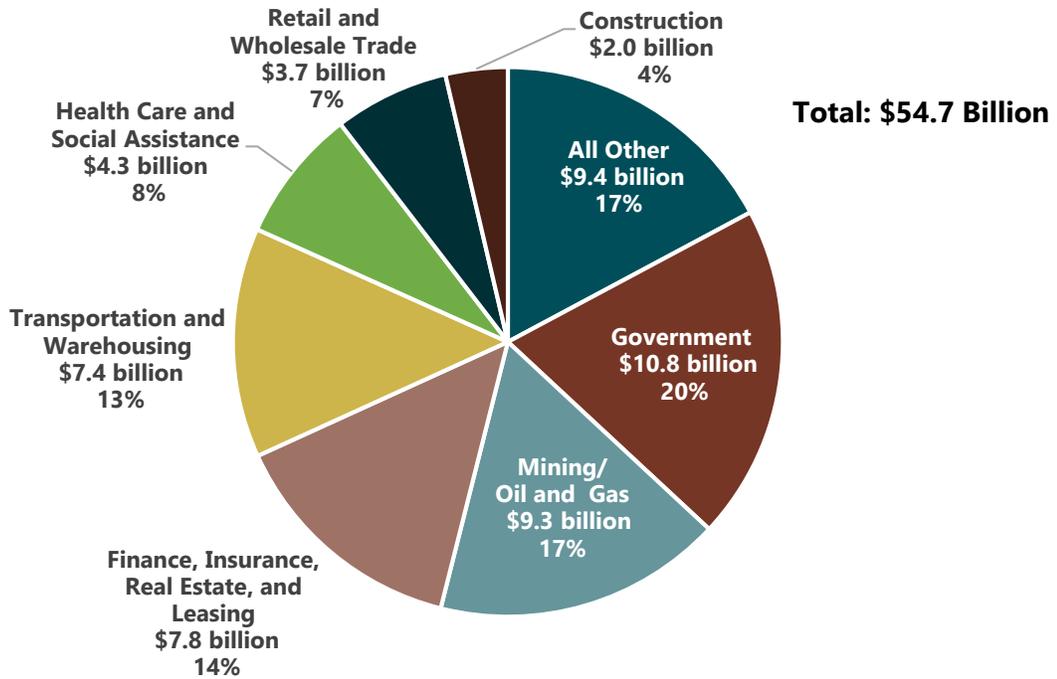
## Gross State Product

In 2018, Alaska’s Gross State Product (GSP) totaled \$54.7 billion, ranking 46<sup>th</sup> in the U.S. Between 2017 and 2018, Alaska’s GSP grew by 5.7%. In 2018 the largest industry in Alaska as measured by GSP was government (\$10.8 billion), accounting for 20% of Alaska’s GSP. Government’s contribution to GSP increased by 2.9% percent between 2017 and 2018.

Construction accounted for \$2 billion in 2018 (or 4% of total GSP). Between 2017 and 2018, the construction sector contribution to GSP increased by 7%.<sup>7</sup> Construction-related GSP differs from total construction spending in that GSP excludes the value of all the materials that are brought into Alaska from outside suppliers (including lumber, steel, equipment, etc.).<sup>8</sup>

<sup>7</sup> <https://apps.bea.gov/itable/iTable.cfm?ReqID=70&step=1#reqid=70&step=1&isuri=1>. Accessed November 2019.  
<sup>8</sup> An industry’s GSP, referred to as its "value added", is equivalent to its gross output (sales or receipts and other operating income, commodity taxes, and inventory change) minus its intermediate inputs (consumption of goods and services purchased from other U.S. industries or imported). GSP differs from national Gross Domestic Product; GSP excludes and national GDP includes the compensation of federal civilian and military personnel stationed abroad and government consumption of fixed capital for military structures located abroad and for military equipment, except office equipment.

**Figure 16. Industry Contributors to Alaska's Gross State Product, 2018**

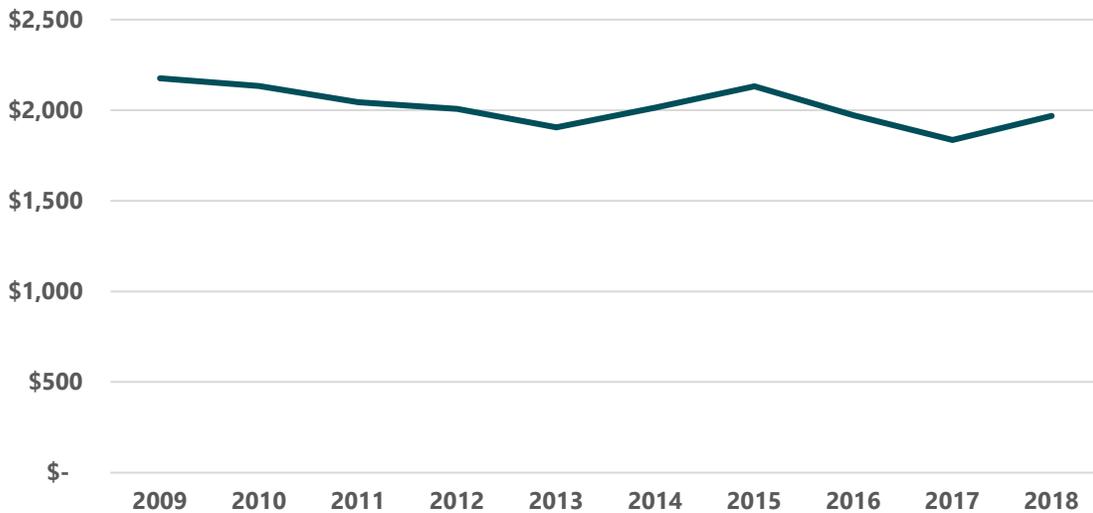


Source: Bureau of Economic Analysis.

### Gross State Product Trends

Construction's share of total GSP has ranged from 3.4% to 4.4% (averaging 3.8%) between 2009 and 2018. During this time period, construction peaked in 2009 at \$2.2 billion and again at \$2.1 billion in 2015. The lowest point was in 2017 at \$1.8 billion. More than half of the value added to the Alaska economy by construction spending occurs in the Anchorage/Mat-Su area.

**Figure 17. Alaska's Gross State Product, Construction Sector Contribution, (\$Millions), 2009-2019**



Source: U.S. Bureau of Economic Analysis.

# 2020 Construction Spending Forecast

## Summary

Total estimated private and public sector construction spending in 2020 is projected to be \$6.7 billion.

- Private sector construction spending is expected to be roughly equal to the 2019 forecast at approximately \$4.4 billion.
- Government spending will show further decline, to \$2.3 billion.

Preparation for the arrival of F-35 fighter jets at Eielson Airforce Base in Fairbanks has dominated construction in Interior Alaska since 2017; however, that spending will begin to wind down in 2020. Construction of 900 new homes to house the growing military population will sustain construction spending in the area for a while longer.

Oil industry-related construction spending is expected to pick up in 2020, boosted by new developments on the North Slope. Alaska tourism is also experiencing growth. An expected 1.4 million cruise passengers in 2020 will support new tourism-related developments throughout the state.

The 7.0 magnitude earthquake that struck Southcentral Alaska in November 2018 continues to boost construction spending as numbers of commercial buildings, schools, utilities, homes, roads, and bridges remain in need repair or reconstruction.

The State of Alaska capital budget remains low relative to historical levels, with General Fund contributions limited to the minimum match needed to secure essential federal funds.

**Table 10. 2020 Alaska Construction Spending Summary, (\$Million)**

Category	Total Spending
<b>Private Construction Spending</b>	<b>\$4,370</b>
Petroleum	2,900
Mining	170
Other Basic Industry	200
Utilities	150
Hospitals/Health Care	300
Other Commercial	300
Residential	350
<b>Public Construction Spending</b>	<b>\$2,280</b>
National Defense	500
Highways and Roads	600
Airports, Ports, and Harbors	350
Education	200
Other Federal Government	180
Other State and Local Government	350
Earthquake Recovery	100
<b>Total</b>	<b>\$6,650</b>

Source: McDowell Group estimates.

## Privately Financed Construction

### Petroleum (\$2.9 billion)

Petroleum-related construction spending is affected by oil price trends, exploration prospects, and industry long-term redevelopment plans. In early January 2020, Alaska North Slope Crude (West Coast Delivery) was selling for approximately \$71/barrel.<sup>9</sup>

North Slope capital expenditures are expected to ramp up over the next few years. ConocoPhillips expects to spend \$11 billion through 2029 in the Colville River unit which includes the Alpine field and in the projects in Prudhoe Bay and Kuparuk River units, as well as another \$1.4 billion in GMT-2 in the National Petroleum Reserve-Alaska (NPR-A) and an additional \$4-6 billion on the Willow Project (also in the NPR-A). In the first quarter 2020, ConocoPhillips will expand the existing Alpine airstrip apron.



*Project: Cook Inlet Alaska Offshore/Oil and Gas Platform Camp.  
Photo credit: Builders Choice Modular, LLC.*

In November 2019, Oil Search Alaska received approval from Alaska's Division of Oil and Gas for the development phase of its Pikka unit Nanushuk project's plan of operations for up to 151 total production and injections wells. New infrastructure and facilities construction within the Pikka unit will include a processing facility, infield pipelines, import and export pipelines, infield and access roads, storage tanks, cold storage, communications tower, construction camps, a 200-bed operations camp, office, warehouse and maintenance buildings, water and wastewater treatment plants, helicopter landing pad, and a boat ramp, among other developments. Infrastructure and facilities outside the Pikka unit include an operations pad, a tie-in pad, and continuation of roads and pipelines. Oil Search and its partner, Repsol, are still exploring south of Pikka.

Eni Oil and Gas will continue work on a long-extended exploration well drilled north from the Beaufort Sea shore to prospects in the federal Outer Continental Shelf.

It is unclear what Hilcorp's \$5.6 billion purchase of BP's Alaska assets (by Spring 2020) will mean for new investment activity in BP's legacy fields; however, Hilcorp has a reputation for aggressive redevelopment of maturing fields.

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<sup>9</sup> Per January 6, 2020. <http://www.tax.alaska.gov/>. Accessed January 2020.

## Mining (\$170 million)

Construction spending is most significant during the development stage of a mine but occurs throughout the life of a mine. Two significant projects are in the permitting phase – Pebble Project and Donlin Gold. The Pebble Project, a copper-gold, molybdenum deposit in Southwest Alaska, is in the environmental impact statement (EIS) phase. While no construction is yet planned at Pebble, \$16 million has been raised recently by Northern Dynasty (the sole owner) for operational expenditures, stakeholder engagement, and ongoing community outreach. Donlin Gold has a final EIS and Record of Decision issued and has moved into the state permitting stage involving regional and tribal consultation with state and federal regulatory agencies. Construction of the Donlin Gold project is not on the immediate horizon, but if developed, it will be a several-billion-dollar investment.

Alaska's six producing mines all expect to make capital expenditures in 2020 on projects such as a new underground tunnel and other construction at Greens Creek near Juneau, bridge upgrades at Usibelli Coal mine in Healy, and expansion of Pogo mine's processing plant (to be completed by 2021) near Delta Junction.

## Other Basic Industry (\$200 million)

Alaska's growing visitor industry is seeing a significant uptick in investment. In 2019, Icy Strait Point (ISP) in Hoonah, in partnership with Norwegian Cruise Lines, built its second cruise dock. Work at ISP planned for 2020 includes construction of two gondola systems and additional uplands development. In Ketchikan, Ward Cove Group is partnering with Norwegian Cruise Lines and Fairbanks-based Godspeed, Inc. for development of a new cruise ship terminal at Ward Cove. Development costs of \$50 million are anticipated, mainly in 2020, though all necessary permits are not yet in hand.



*Project: Ice Strait Point Cruise Ship Dock.  
Photo credit: Turnagain Marine Construction.*

In Anchorage, Hotel Indigo will break ground in 2020 with expected opening for the 2021 summer season. Seward is also seeing expansion of hotel rooms with Major Marine's new 74-room Gateway Hotel in 2020.

## Utilities (\$150 million)

Construction spending by utility companies will be down from 2019, largely due to completion of GCI's \$140 million 5Band and 5G upgrade project. However, utility companies still have several construction projects scheduled for 2020. Some are small and related to maintenance while others are more significant. For example, Interior Gas Utility anticipates constructing an LNG Storage facility at North Pole, an LNG plant expansion at Big Lake, and LNG distribution expansion in the Fairbanks North Star Borough.

Chugach Electric Association anticipates spending on its Beluga River Unit, 115kV transmission line rebuild, Fire Island Cable reburial, and decommissioning of units at Beluga Power Plant, Arctic Feeder improvement, distribution substation transformer replacements, and control upgrades at the Cooper Lake Power Plant.

Alaska Industrial Development and Export Authority (AIDEA) expects construction-related spending on relocation of a substation at Ketchikan Shipyard, for work at the Snettisham Transmission facility.

Other construction projects are anticipated by Matanuska Electric Association, Matanuska Telephone Association, Inside Passage Electric Cooperative, Alaska Power and Telephone, and Alaska Electric Light and Power, among others.



*Project: Municipality of Anchorage – Anchorage Water and Wastewater Utility, Eagle River.  
Photo credit: Roger Hickel Contracting, Inc.*

## **Hospitals and Health Care (\$300 million)**

Construction spending related to health care facilities is driven by a variety of factors, including Alaska’s aging population, federal and state health care funding and insurance policies, and technology advances. After completing construction of its Palmer and Wasilla assisted living facilities, Maple Springs will develop a senior living center in Anchorage. Fairbanks Memorial Hospital plans to upgrade its internal medicine, radiology, and orthopedics facilities. Alaska Surgery Center Limited anticipates construction-related spending on its Ambulatory Surgery Center.

Providence Alaska Health Services anticipates construction-related spending in Anchorage at the Providence Alaska Medical Center, Providence Medical Group, St. Elias Inpatient Rehabilitation, and Providence Kodiak Island Medical Center. Bartlett Regional Hospital in Juneau will complete construction of its Rainforest Recovery Center, demolish and replace its mental health crisis stabilization building, and reconstruct a campus access road.

The federal government funds construction projects throughout Alaska’s tribal health system. In 2020, activity will likely include renovations and maintenance at Alaska Native Tribal Health Consortium and Southcentral Foundation in Anchorage and various projects at Kanakanak Hospital in Dillingham and other tribal hospitals. Construction of the new \$340 million hospital and related facilities at the Paul John Calricaraq Project in Bethel is expected to be completed in 2021. In 2020, Tanana Chiefs Conference will start construction on expanding and renovating its Chief Isaac Health Clinic in Fairbanks. In 2019, construction began on the new Wrangell Medical Center (WMC), a facility that will marry new construction with the existing Alaska Island Community Services Clinic to create a 44,500 square foot campus that will bring primary care, emergency, acute, long-term care and support services under one roof by early 2021.

## **Other Industrial/Commercial (\$300 million)**

Though difficult to fully identify and quantify all pending investments, businesses throughout Alaska and in all sectors will continue to make capital expenditures for new facilities, upgrades, and expansions.

A miscellaneous sample of projects include Anchorage's Abused Women's Aid in Crisis (AWAIC) women's emergency shelter, where construction started in 2019 and will continue through 2020. In Juneau, construction of Sealaska's underground parking garage will begin in 2020, as part of the new Sealaska Heritage Institute's arts complex. Other permitted construction anticipated in 2020 includes projects such as Raising Cane's restaurant in Anchorage, Planet Fitness in Eagle River, completion of Medline Warehouse in Anchorage, and other retail and manufacturing facilities.

## **Residential (\$350 million)**

Demand for housing construction is linked to population growth and shifts in housing preferences. Alaska's population peaked in 2016, housing construction permit values peaked in 2017, and the number of housing permits peaked in 2018. Recent figures suggest Alaska's economy is recovering from the recession of the past four years. Statewide, estimated new private housing development, renovation, and rehabilitation spending for 2020 is \$350 million.

## **Publicly Financed Construction**

### **National Defense (\$500 million)**

USACE has \$332 million in construction funding budgeted in FFY2020, down 52% from FFY2019 spending (\$640 million). FFY2020 construction funding includes \$50 million for military construction projects (down 76% from FFY2019), \$22 million for missile defense construction (down 87% from FFY2019), \$85 million for sustainment, restoration, and modernization projects (up 7% from FFY2019), and \$140 million for environmental projects (up 27% from FFY2019), and interagency work.

### **Highways and Roads (\$600 million)**

In 2020, an estimated \$600 million in construction-related spending is expected for Alaska's highways and roads. This estimate includes projects yet to be completed from previous fiscal years along with 2020 commitments. Improvements to Seward Highway, Sterling Highway, Dalton Highway, Parks Highway and Richardson highway account for more than \$300 million of this estimated spending.

## Airports, Ports, Harbors, and Railroad (\$350 million)

Over the past five years, the Federal Airport Improvement Program has funneled more than \$200 million annually to Alaska. For FFY2020, Alaska's airports received \$215 million in federal funding assistance, matched by \$17 million from state capital grants. Capital improvements in 2020 are anticipated at airports throughout Alaska, including runway improvements (Anchorage International Airport), terminal improvements (Juneau), access road reconstruction (Merrill Field in Anchorage), fencing, resurfacing, rehabilitations, and other improvements.

In FFY2020, the U.S. Army Corps of Engineers has budgeted \$22 million for harbor maintenance, including Anchorage (\$10 million), the Chena River Lakes Flood Control Project (\$7 million), Dillingham (\$875,000), Homer (\$615 million), Ninilchik (\$650,000), Nome (\$2.2 million), and other harbors.<sup>10</sup> Ketchikan will refurbish its ferry berths and upland improvements, including Gravina ferry layup and freight facilities and cruise ship berths. Sitka will rebuild its Crescent Harbor, and replacement of harbor launch ramps are planned for Haines and Nome.



*Project: Skagway Railroad Dock.  
Photo credit: Turnagain Marine Construction.*

Modernization efforts continue at the Port of Alaska (POA).

The Anchorage Assembly approved a \$42 million contract to upgrade PCT-1 (Petroleum Cement Terminal 1). In addition, POA recently secured a \$25 million federal grant to support the third and final phase of the PCT-1 project.

Alaska Railroad plans to spend \$6 million for track rehabilitation and improvements in SFY2020.

## Education (\$200 million)

The Alaska Department of Education and Early Development provides funding for new school construction, rehabilitation, and preventative maintenance. Along with the state's investment, local governments also share in these capital expenses. Spending of previously authorized funds is expected in 2020. For example, about half of the \$6.4 million North Pole Middle School mechanical and energy efficiency upgrades awarded in SFY2014 remain unspent and \$53.1 million for the Kivalina K-12 Replace School, approved in SFY2016, is expected to go out to bid in 2020 for a multi-year project. In SFY2020, \$40 million was awarded for school renovation, replacement, and additions. Of the \$597 million in K-12 school capital budget approved since SFY2011, approximately \$185.5 million is remaining to complete construction.

The University of Alaska's capital budget in SFY2019 was \$2 million, including deferred maintenance, renovation, repair, and equipment (down from \$5 million in SFY2018).

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<sup>10</sup> <https://cdm16021.contentdm.oclc.org/digital/collection/p16021coll6/id/42> (Accessed December 2019).

## Other Federal Government (\$175 million)

The federal government supports a range of projects other than those related to national defense and transportation infrastructure. This generally consistent funding flows to government entities (including tribal governments) and other non-profit entities that provide a variety of services to Alaskans.

### HOUSING AUTHORITIES AND PUBLIC HOUSING (\$65 MILLION)

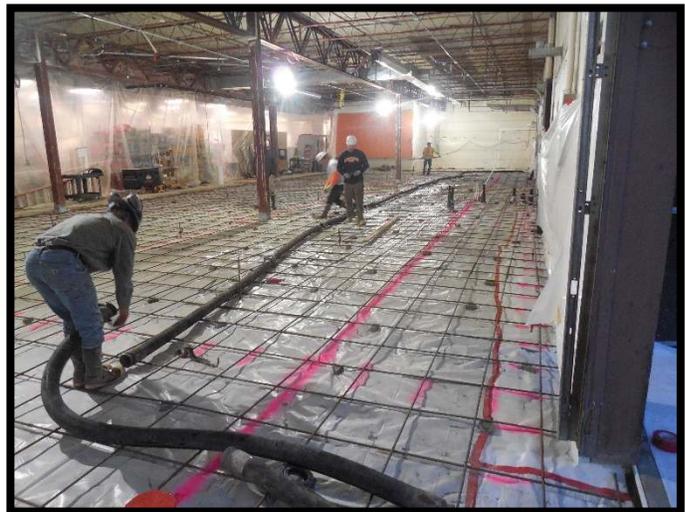
Cook Inlet Housing Authority, Copper River Basin, Aleutian Housing Authority and the tribal governments of Saint Paul and Fort Yukon are receiving \$16.5 million in Indian Housing block grant funding to help build 1,200 new housing units in Alaska in 2020. Additional housing authority spending is anticipated, including Cook Inlet Housing Authorities Coronado Park Phase II project.

## Other State and Local Government (\$350 million)

Along with public infrastructure improvements or developments mentioned above, another \$350 million in other state and local government construction expenditures is anticipated in 2020. Examples include bulk fuel storage upgrades, Newtok-Mertavik community development initiatives; drinking water improvements; teacher, health, and public safety professional housing; and Pioneer Home renovations and repair.

## Earthquake Recovery (\$100 million)

Continued spending is anticipated for recovery of the 2018 earthquake in Southcentral Alaska. By November 2019, approximately \$130 million in federal help through the Federal Emergency Management Agency and the Small Business Administration had already been spent on repairs. In December 2019, the Department of Housing and Urban Development announced an award of \$36 million to support disaster recovery efforts. Many homes “red-tagged,” meaning unfit for occupancy, and those “yellow-tagged,” meaning restricted use, still require permits for demolishing or rehabilitation. Many other projects remain in the planning stages, including a permanent repair to Vine Road (scheduled to start in the summer of 2020 and not completed until 2021), school repairs for 14 schools in the Anchorage School District (\$70 million for earthquake repairs in the municipal bond proposal) and Houston Middle School, and several businesses including a McDonald’s in Eagle River.



*Project: AIH Eagle River Earthquake Repairs.  
Photo credit: Roger Hickel Contracting, Inc.*

# Construction Industry Occupational and Labor Force Profile

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An important measure of the economic contribution of an industry is the extent to which it provides a range of employment possibilities for local residents. The construction industry labor force includes workers with a broad spectrum of expertise and skills, some very specialized and other more general.

The table on the following page shows the number of people employed in construction-related occupations in Alaska in 2016 along with average hourly pay. It is important to note that wage rates differ by level of experience, union or non-union status, whether a job is federally funded (Davis-Bacon), and by where the job is located.

Based on the most current data available, the occupation categories with the highest number of workers are construction laborers (3,771 workers in 2016), operating engineers and other construction equipment operators (2,996), and carpenters (2,254). Average hourly pay ranges from \$18.22 for carpenter helpers to \$36.70 for electricians.

Occupational data differs from employment data. Occupations reflect the role that a worker fulfills in an organization, regardless of the organization's industry. The U.S. Department of



*Project: Rogers Park School.  
Photo credit: Swalling General Contractors, LLC; Hook, LLC.*

Labor classifies occupations into broad career clusters, reflecting occupations with similar characteristics. Occupational worker counts include any individual who worked in the occupation at any point during a year, including full- and part-time workers and those who worked all or part of the year. Not all workers in a construction-related occupation are employed by a construction firm. For example, the State of Alaska has maintenance and construction crews that work on building or road repairs. Similarly, school districts have workers that perform school maintenance and repairs.

**Table 11. Construction Sector Occupations Employment Count and Average Hourly Rates, Alaska, 2016**

Occupation Title	Employment Count	Average Hourly Rate
<b>Construction Trades</b>		
Boilermakers	71	n/a
Brickmasons and Blockmasons	26	n/a
Carpenters	2,254	\$31.85
Carpet Installers	55	\$21.66
Floor Layers, Except Carpet, Wood, and Hard Tiles	29	n/a
Tile and Marble Setters	25	n/a
Cement Masons and Concrete Finishers	171	\$32.16
Construction Laborers	3,771	\$24.75
Paving, Surfacing, and Tamping Equipment Operators	94	\$31.85
Pile-Driver Operators	81	n/a
Operating Engineers and Other Construction Equipment Operators	2,996	\$34.01
Drywall and Ceiling Tile Installers	101	\$24.79
Electricians	1,958	\$36.70
Glaziers	142	\$28.56
Insulation Workers, Floor, Ceiling, and Wall	124	\$27.62
Insulation Workers, Mechanical	96	\$29.22
Painters, Construction and Maintenance	490	\$26.81
Pipelayers	28	\$35.48
Plumbers, Pipefitters, and Steamfitters	1,481	\$36.31
Plasterers and Stucco Masons	25	n/a
Roofers	235	\$24.79
Sheet Metal Workers	382	\$29.34
Structural Iron and Steel Workers	173	\$34.17
<b>Total</b>	<b>14,859</b>	
<b>Helpers, Construction Trades</b>		
Helpers--Brickmasons, Blockmasons, Stonemasons, & Tile/Marble Setters	42	n/a
Helpers--Carpenters	343	\$18.22
Helpers--Electricians	192	\$19.30
Helpers--Painters, Paperhangers, Plasterers, and Stucco Masons	75	\$16.60
Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters	168	\$23.27
Helpers--Roofers	51	n/a
Helpers, Construction Trades, All Other	535	\$21.53
<b>Total</b>	<b>1,406</b>	
<b>Other Construction and Related Workers</b>		
Construction and Building Inspectors	307	\$40.04
Fence Erectors	56	n/a
Hazardous Materials Removal Workers	434	\$30.99
Highway Maintenance Workers	136	\$20.51
Rail-Track Laying and Maintenance Equipment Operators	77	n/a
Septic Tank Servicers and Sewer Pipe Cleaners	91	\$24.22
Construction and Related Workers, All Other	457	n/a
<b>Total</b>	<b>1,576</b>	

n/a: not available.

Source: Alaska Department of Labor and Workforce Development.

The following table provides detailed wage data for the 10 most common occupations, including average wages paid in Alaska’s larger urban areas.

Most of the top 10 occupations have more than 25% of workers in the cohort over age 50. More than half of operating engineers are over age 45 (51%). This has important implications for sustaining Alaska’s construction workforce through recruiting and training programs (described in the next chapter).

**Table 12. Profile of Top 10 Construction Sector Occupations in Alaska, 2018**

Occupation Title	Employment Count	Average Wage Alaska	Average Wage Anchorage /Mat-Su	Average Wage Fairbanks	Average Wage Balance of State	% Age 45+	% Age 50+
Construction Laborers	3,771	\$24.75	\$26.00	\$23.86	\$23.67	26	18
Operating Engineers and Other Construction Equipment Operators	2,996	\$34.01	\$35.35	\$36.04	\$32.83	51	40
Carpenters	2,254	\$31.85	\$31.67	\$30.41	\$32.89	38	28
Electricians	1,958	\$36.70	\$35.48	\$35.76	\$38.33	37	29
Plumbers, Pipefitters, and Steamfitters	1,481	\$36.31	\$37.02	\$36.05	\$34.66	36	26
Helpers, Construction Trades, All Other	535	\$21.53	19.87	n/a	\$25.79	30	21
Painters, Construction and Maintenance	490	\$26.81	\$25.27	\$29.31	\$29.98	40	31
Hazardous Materials Removal Workers	434	\$30.99	\$25.26	n/a	\$33.91	31	22
Construction and Related Workers, All Other	457	n/a	n/a	n/a	n/a	39	30
Sheet Metal Workers	382	\$29.34	\$29.34	\$30.87	n/a	35	24

n/a: not available.

Source: Alaska Department of Labor and Workforce Development.

## Labor Force Residency

ADOLWD’s methodology for calculating workforce residence is based on PFD applications and results in a conservative estimate of “resident” employment because a new resident to Alaska must reside in the state for a full calendar year before they are eligible to apply for a PFD. A new resident who arrived in Alaska in February of 2019, for example, would not be eligible to apply for a PFD until the 2021 application period. As a result, this person would reside in Alaska for nearly two years before being classified as an Alaska resident by ADOLWD.

Nonresidents are often employed in seasonal industries, remote site locations (where workers work on a rotation schedule, allowing for workers to not live close to their job), or have specific job skills not readily available in Alaska.

Since 2013, the proportion of Alaskan residents working in the construction industry has increased (from 79% to 82% in 2017) as has the proportion of wages paid to Alaskans (84% to 86% in 2017).

**Table 13. Construction Industry Resident Workers and Wages in Alaska, 2013-2017**

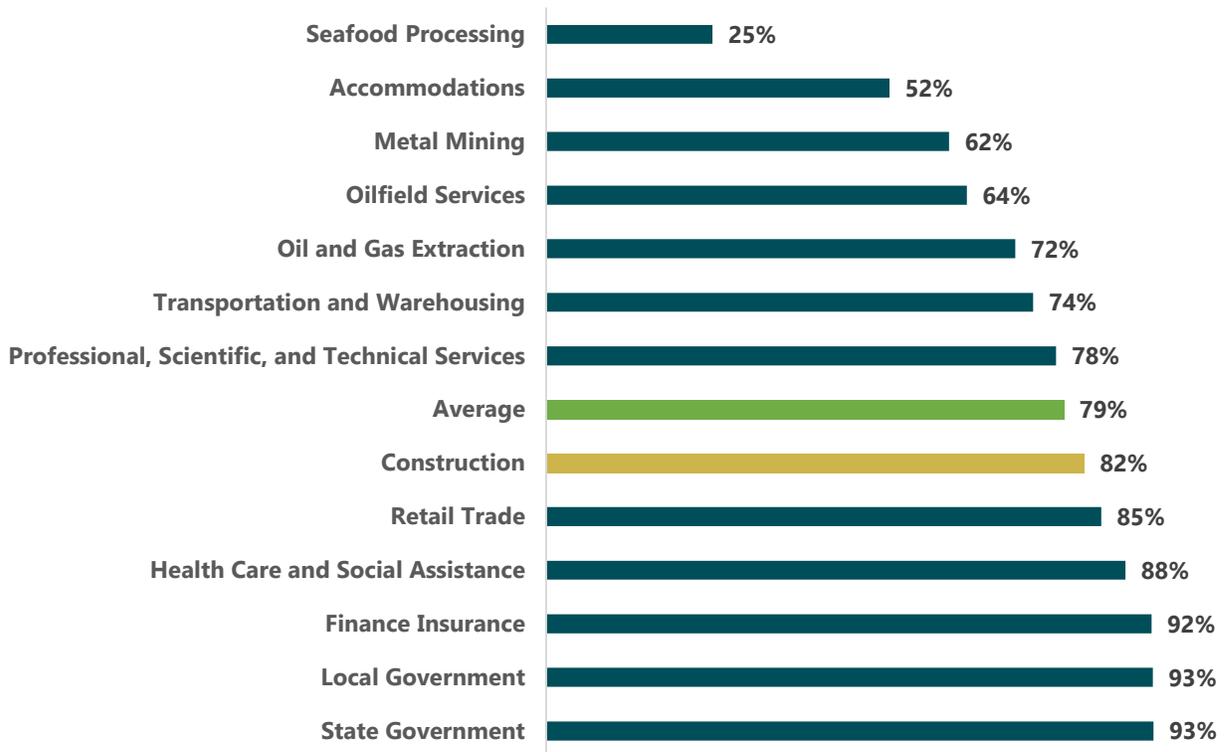
Year	Resident	Nonresident	Total	Resident % of Total
<b>Workers</b>				
2013	21,072	5,541	26,613	79.2
2014	21,506	6,126	27,632	77.8
2015	20,810	5,788	26,598	78.2
2016	19,358	4,578	23,936	80.9
2017	18,344	3,978	22,322	82.2
<b>Wages</b>				
2013	\$1,020,612,761	\$193,881,155	\$1,214,493,916	84.0
2014	\$1,102,663,047	\$236,284,937	\$1,338,947,984	82.4
2015	\$1,115,155,236	\$214,896,739	\$1,330,051,975	83.8
2016	\$986,252,573	\$164,901,313	\$1,151,153,886	85.7
2017	\$910,137,596	\$143,652,937	\$1,053,790,533	86.4

Source: Alaska Department of Labor and Workforce Development. Does not include self-employed workers.

## Industry Comparison

The 2017 proportion of resident workers (82%) in Alaska’s construction industry is just slightly above the average Alaska resident hire rate for all industries (79%).

**Figure 18. Percent of Positions Held by Residents, By Selected Sectors, 2017**



Source: Alaska Department of Labor and Workforce Development.

## Residency Trends by Construction Occupation

The construction trade with the largest number of workers is laborers (3,789 in 2017), of which 81% were Alaska residents, followed by carpenters (82%), operating engineers (80%), and electricians (91%).

**Table 14. Alaska Residents in Top 20 Construction Occupations, 2017**

Occupation	Resident Workers	Nonresident Workers	Total Workers	Resident % of Total Workers
Construction Laborers	3,058	731	3,789	80.7
Carpenters	1,953	417	2,370	82.4
Operating Engineers and Other Construction Equipment Operators	1,335	329	1,664	80.2
Electricians	1,199	124	1,323	90.6
Plumbers, Pipefitters, and Steamfitters	854	113	967	88.3
Construction and Related Workers, All Other	467	200	667	70.0
Painters, Construction and Maintenance	452	132	584	77.4
Heavy and Tractor-Trailer Truck Drivers	465	93	558	83.3
Construction Managers	476	53	529	90.0
Helpers, Construction Trades, All Other	373	72	445	83.8
Roofers	323	84	407	79.4
Bookkeeping, Accounting, and Auditing Clerks	346	20	366	94.5
Sheet Metal Workers	331	27	358	92.5
First-Line Supervisors of Const Trades and Extraction Workers	259	98	357	72.5
Helpers: Carpenters	280	76	356	78.7
Office Clerks, General	308	28	336	91.6
Office and Administrative Support Workers, All Other	300	27	327	91.7
Cement Masons and Concrete Finishers	213	93	306	69.6
Heating, Air Cond, and Refrigeration Mechanics and Installers	190	23	213	89.2
General and Operations Manager	135	29	164	82.3

Source: Alaska Department of Labor and Workforce Development.

## Workforce Development

Occupational “openings” represent the number of opportunities for a new worker to enter a construction occupation. Total openings may be due to growth in construction activity and openings due to workers leaving the occupation or leaving the workforce entirely (separations). The overall change in construction employment reflects new growth opportunities only, while total openings includes the impact of occupational separations.

ADOLWD predicts 2.5% growth in construction trades between 2016 and 2026, with annual average openings of 1,561 jobs. Some construction occupations expect more openings than others. The top expected needs are construction laborers (404 annual average openings between 2016 and 2026), followed by operating engineers (324), electricians (220), carpenters (217), and plumbers, pipefitters, and steamfitters (153). Projections do not include openings due to turnover in which an employee moves between employers but stays in the same occupation.

Several statewide initiatives, as well as regional or organizational efforts, have occurred to enhance workforce development strategies around building Alaska's construction workforce, including expansion of apprentice training opportunities, more pathways for high schools students to enter the construction industry, increased capacity of post-secondary institutions to supply construction workers (particularly in rural areas), funding support for continuing education to upgrade construction worker skills, and growing the number of qualified vocational educators and industry trainers, among other initiatives.

Several private and public efforts exist to train workers (both union and non-union) to fill these and other construction occupation needs. Appendix A lists some key workforce development organizations. Additionally, most construction firms offer opportunities for on-the-job training and apprenticeship development initiatives.

# Appendix A: Key Alaska Workforce Development Organizations

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This appendix contains brief overviews of key organizations in Alaska that offer construction-related workforce development training. These overviews are not comprehensive of all training available but highlight the breadth and depth of existing workforce development services.

## **AGC of Alaska** (<https://www.agcak.org/>)

The Alaska chapter of the Associated General Contractors offers education and training for commercial and residential builders in the state. AGC of Alaska also partners with student organizations at University of Alaska, Anchorage and University of Alaska, Fairbanks and awards scholarships to students pursuing post-secondary education in the construction industry.

- AK-CECSL Training (and Certification Renewal)
- Construction Quality Management
- How to Write a SWPPP

## **ABC of Alaska** (<http://www.abcalaska.org/>)

The Alaska chapter of the Associated Builders and Contractors (ABC) provides development opportunities for workers in the construction industry, primarily in the industrial and commercial sectors. ABC of Alaska offers various apprenticeship and craft training programs, as well as online OSHA outreach training for construction and general industry.

- Apprenticeships (HVAC, Pipefitter, Sheet Metal Worker, Electrician, Plumber, etc.)
- Introduction to OSHA
- Fire Prevention

## **Alaska Apprenticeships Training Coordinators Association** (<https://aatca.org/>)

The Alaska Apprenticeships Training Coordinators Association (AATCA) is composed of the Joint Administered Training Committees of more than 16 different union construction crafts. The JATCs provide quality training for most construction apprentices in Alaska and offers enhancement classes for journeyman craftsmen and Construction Academy courses (see below). The AATCA partners the Alaska Works program, and promotes entry of veterans into the labor force through the Helmets to Hardhats program.

- Apprenticeship programs for: insulators, boilermakers, bricklayers, carpenters, electrical workers, ironworkers, laborers, millwrights, painters, piledrivers, plasters/cement masons, plumbers/fitters, roofers, and sheet metal workers
- Partnered with 16 local construction unions.

**Alaska Construction Academies, Alaska Works Partnership** (<http://www.alaskaworks.org/>)

The Alaska Construction Academies (ACA) in Anchorage, Mat-Su, and Fairbanks offer introductory training in several construction-related trades such as carpentry, welding, plumbing, electrical, weatherization. Through partnerships with AATCA, the Alaska Department of Labor, and other organizations, the AWP also helps connect individuals with training, education, apprenticeships, and careers throughout Alaska's construction industry.

- Electrical Pre-Apprenticeship
- Power Tools
- Carpentry 1, 2
- Rigging and Piledriving
- Metal Studs Framing / Sheetrock and Taping

**Alaska Safety Alliance** (<https://www.alaskasafetyalliance.org>)

The Alaska Safety Alliance (formerly Alaska Process Industry Careers Consortium (APICC)) was founded in 1999 as a vehicle for industry collaboration in workforce development in Alaska, especially in process technology. The organization manages the North Slope Training Cooperative, which develops and maintains standardized health, safety, and environmental training programs for employees on the Alaska North Slope and at industrial sites throughout the state. The organization's programs include a Teacher Industry Externship (Alaskan teachers experiencing industrial work firsthand), scholarships for students attending process technology programs at the University of Alaska and other educational institutions in Alaska, career awareness outreach, and a variety of other workforce development efforts throughout the state. The APICC program is housed within Alaska Safety Alliance, focusing on career awareness and education outreach activities.

**Alaska Teamster-Employer Service Training Trust** (<http://www.akteamsterstraining.com/>)

Alaska Teamster-Employed Service Training Trust is a multi-employer collectively bargained plan that provides training to current Alaska Teamster Local 959 members and others who meet eligibility requirements. It operates in both Anchorage and Fairbanks.

- CDL A or B Road Skills Assessments and Refreshers
- Articulated End-Dump
- Side Dump Trailer
- Entry Level Driver Course
- Mining Safety and Health Administration

**Alaska Technical Center** (<https://www.nwarctic.org/atc>)

The Alaska Technical Center, located in Kotzebue, is an adult vocational/training school designed specifically to meet the workforce demands of rural Alaskans. ATC provides core training programs, employer-designed short courses, and GED preparation/testing.

- Construction Level 1
- Construction Trades Technology Level 1
- Process Technology

- Commercial Driver's License (CDL)
- Residential Electric

**Alaska West Training Center / Lynden Training Center** (<http://www.lynden.com/training/about.html>)

The Lynden Training Center, formerly known as the Alaska West Training Center, is a division of Alaska West Express that provides hands-on workplace safety training in hazardous materials transportation, emergency response for hazardous materials and the Incident Command System. From:

- Fall Protection
- Petroleum Technician
- Transportation Specialist
- Permit Required Confined Space Entry (plus Fire Watch and Rescue)
- Petroleum Workers Safety and Health

**AVTEC – Alaska Vocational Technical Center** (<https://avtec.edu/>)

AVTEC's Construction Technology program provides students with a wide variety of experience that prepares them for entry-level employment and apprenticeships in the construction and maintenance trades, using a blend of classroom instruction, lab, and live work practice to help students learn necessary skills to become Construction Technicians.

- Concrete Foundations
- Construction Prints and Drawings
- Exterior Finish
- Framing
- Introduction to Carpentry

**Center for Employment Education** (<http://www.cee-ak.com/Training.html>)

The Center for Employment Education is a DMV 3<sup>rd</sup> Party Driver Testing Facility, and offers a variety of short and long, group or individualized CDL Training programs as well as road tests, hazardous materials training, and industry-specific safety training programs. CEE offers training at on-site locations throughout Alaska.

- Basic Driver Training (6-week)
- CDL A or B Road Skills Assessments and Refreshers
- OSHA 10-Hour or 30-Hour
- Defensive Driving Course for the Professional Truck Driver
- Hazardous Materials Transportation Specialist

**Environmental Management, Inc.** (<https://emi-alaska.com/training/>)

Environmental Management Inc. is an engineering, consulting, and training firm that regularly offers a wide range of courses on OSHA, DOT, and EPA topics. Courses are taught at their facilities in Anchorage and Fairbanks, as well as on location throughout the state of Alaska.

- OSHA 10-Hour or 30-Hour
- Scaffold Safety and Fall Protection
- Thinking Driver
- Hazardous Painter (Initial and Refresher)
- Trenching, Excavating, & Shoring

**Ilisagvik College** (<https://www.ilisagvik.edu/programs/construction-tech/>)

Located in Utqiagvik, AK, Ilisagvik College is a two-year tribal college offering post-secondary academic, vocational, and technical training. Among their education programs are many certificates and endorsements in construction related trades.

- Business and Management
- CDL/Heavy Truck Operations
- Heavy Equipment Operations
- Scaffolding I
- Village/Tribal Management

**Northern Industrial Training** (<https://www.nitalaska.com/>)

Northern Industrial Training is a vocational training center in Palmer that specializes in professional truck driving, heavy equipment, construction building trades, oil and gas pipeline, hazardous materials and mine safety training programs. Some programs are eligible for Alaska Performance Scholarship funds.

- Pro Truck Driver
- Construction Equipment Training
- Mobile Crane Operator
- Fall Protection
- OSHA 10-Hour or 30-Hour
- Energy Isolation-Lockout/Tag Out
- Aerial Lift
- NCCER Pipefitting (Levels 1-4)

**University of Alaska** (<https://www.alaska.edu/alaska/degrees/index.php>)

Various courses of study pertaining to construction, from certificate programs to associate's and bachelor's degrees, are offered at the University of Alaska's campuses across the state. The University of Alaska Fairbanks also hosts the Mining and Petroleum Service, a workforce development program that offers non-credit courses and training.

- Construction Management
- Logistics & Supply Chain Operations
- Rural Utilities Business Management
- Commercial HVAC System / Refrigeration System
- Mine Safety and Health Administration

**Wisdom & Associates, Inc.** (<http://wisdomandassociates.com/>)

Wisdom is a home inspection firm that also provides education for the building industry. It offers classes for multiple building industry trades, where students can gain continuing education credit, various certifications, and keep up to date on the latest in codes and research from the field. From: <http://live.laborstats.alaska.gov/atc/provider.cfm?p=020000000120>.

- Advanced Building Science
- Is this House Sick? (Causes of Air Quality Problems)
- Killer Houses: The Good, The Bad, and The Ugly
- The Economics of Energy Efficiency
- Air Sealing and Vapor Barrier Details
- Alaska's Energy & Ventilation Standard
- Combustion Safety Testing

**Additional Workforce Development Organizations**

- Alaska Building Science Network
- Alaska Carpenters Training Trust
- Alaska Job Corps
- Alaska Operating Engineers/Employers Training Trust
- Alaska Petroleum Academy
- Alaska Trowel Trades
- American Health and Safety, LLC
- Beacon Occupational Health and Safety Services

- Charter College, Anchorage
- Conscious Solutions
- Delta Mine Training Center
- Fairbanks Area Plumber and Pipefitters
- International Union of Painters and Allied Trades, Local 1959
- LTR Training Systems, Inc.
- Nu-Solutions Consulting
- Partners for Progress in Delta, Inc
- Plumbers & Steamfitters Joint Apprenticeship Training Committee
- Satori Group Inc
- Southwest Alaska Vocational and Education Center
- TSS - The Safety Specialists
- Vocational Training and Resource Center
- Wayland Baptist University



**The Associated  
General Contractors of Alaska  
WE BUILD ALASKA**

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