

Kenai Peninsula 2021-2026 Comprehensive Economic Development Strategy



June 2022 Update

Prepared by the University of Alaska Center for
Economic Development
Annual updates provided by the Kenai Peninsula
Economic Development District



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I. Introduction

Kenai Peninsula Economic Development District Overview

The Kenai Peninsula Economic Development District (KPEDD) is a 501(c)(4) non-profit regional economic development organization. Established in 1988, KPEDD serves the residents and communities of the Kenai Peninsula Borough (KPB) in Southcentral Alaska. As the first federal Economic Development District designated in Alaska, as well as the first Alaska Regional Development Organization or ARDOR, KPEDD has actively pursued development opportunities for the region. Over its lifetime, KPEDD has been involved in a variety of projects including public works advocacy, shellfish industry development, international trade, promotion of a North Slope Natural Gas Pipeline to Cook Inlet, building infrastructure, industry recruitment, and business retention and expansion (BR&E).

KPEDD, with funding provided by the KPB and U.S. Economic Development Administration, compiles and publishes the Kenai Peninsula Borough Comprehensive Economic Development Strategy (CEDS), and this document represents the most recent update, replacing the previous 2016 document.

CEDS Strategy Committee

The KPEDD staff and the University of Alaska Center for Economic Development (UA CED) conducted the CEDS process, under the general direction and guidance of the KPEDD Board of Directors. The board consisted of the following individuals:

Current KPEDD Board Members:

- Rusty Swan (President), Kenai
- Liz DeMoss (Vice President), City of Seward
- Chris Hough (Secretary), Soldotna
- Karin Marks (Treasurer), Homer
- Todd Smith, Kenai
- Bruce Richards, Soldotna
- John Czarnezki, City of Soldotna
- Brad Anderson, Homer
- Jan Yaeger, Seldovia
- Sara Bieber, Kenai
- Jeff Hetrick, Moose Pass
- Ryan Foster, Kenai
- Tim Redder, Kenai
- Tyson Cox, Soldotna

KPEDD Staff:

- Tim Dillon, Executive Director
- Cassidi Cameron, Special Projects Manager
- Caitlin Coreson, Program Manager
- Abby Dial, Research Assistant

Process

The CEDS was developed in accordance with the U.S. Economic Development Administration’s guidelines, with KPEDD Executive Director Tim Dillon overseeing its completion. UA CED conducted the background research, coordinate the public process, facilitated the creation of the action plan, and drafted the document itself. Wherever possible and practical, the Executive Director and Board members participated in community forums and industry focus groups and provided extensive feedback and input on various drafts of the document.

The relationship with the UA CED began in Fall 2020, with work continuing into the winter and then the spring of 2021. Key milestones in the CEDS outreach include:

- October 2, 2020—KPEDD Board retreat;
- October 21,2020—State of Alaska ARDORS;
- October 29, 2020—Homer Rotary;
- November 13, 2020—Alaska Farm Bureau;
- January 6, 2021—KPEDD Industry Outlook Forum, Economic Future Forum;
- February 9, 2021—Homer Economic Development Commission;
- February 17, 2021—Kenai and Soldotna Chambers of Commerce joint luncheon;
- February 24, 2021—Soldotna City Council;
- March 1, 2021—Kenai Peninsula Borough School District Board;
- March 3, 2021—Kenai City Council;
- March 8, 2021—Seldovia City Council;
- March 10, 2021—Tyonek;
- March 22, 2021—Seward City Council;
- March 23, 2021—Seward Chamber of Commerce;
- March 30, 2021—Anchor Point Senior Center, Cooper Landing Chamber of Commerce, Hope Chamber of Commerce; Moose Pass Chamber of Commerce, Nanwalek Tribal Council, Nikiski Senior Center, Port Graham Tribal Council, and Seldovia Village Tribal Council;
- April 1, 2021—Seldovia Chamber of Commerce;
- April12, 2021—Homer City Council;
- April 13, 2021—Homer Chamber of Commerce;
- April 20, 2021—Kenai Peninsula Borough Assembly;
- May 14, 2021—Draft published for 30-day comment period;
- June 14, 2021—Comment period completed and draft finalized; and
- June 17, 2021—KPEDD Board approves final document.

II. Background

Geography and Climate

KPB is 25,600 square miles, of which 15,700 square miles are land,¹ and 8,741 square miles are water.² The population per square mile is 3.8. The borough is roughly the size of New Jersey and Massachusetts combined.

The borough is surrounded by Anchorage to the north, the Alaska Range to the west, the Gulf of Alaska and Prince William Sound to the south and east. The Kenai Mountains run to the north and south of the borough. The Cook Inlet runs in the center of the borough, creating two land masses. Approximately 99 percent of the population resides in the Peninsula, with the west side of the borough being sparsely populated.

The borough's 37 communities are connected by land, air, and ferry. KPB has 32 airports or landing strips (discussed further in the infrastructure and transportation section).³ The air miles from major public KPB airports to Anchorage, the closest hub city, are as follows:



Figure 1: Air miles between Anchorage and Borough Communities.
Source: State of Alaska Community Database Online.

The borough consists of diverse climates including: glacial rivers, mountain ranges, spruce forests, and coastal fjords. Much of this diverse climate is part of national forests/parks within or adjacent to KPB including:

- Chugach National Forest;
- Katmai National Park and Preserve;
- Kenai Fjords National Park;
- Kenai National Wildlife Refuge;
- Lake Clark National Park and Preserve; and,
- Kachemak Bay State Park.

The Kenai Peninsula is an active zone for earthquakes. The edge of the Pacific Plate passes through the Gulf of Alaska, and is still quite active. The January 24th, 2016⁴ and November 30, 2018⁵ earthquakes were centered in the Cook Inlet region. Both earthquakes were 7.1 magnitude. There are also volcanoes in the Cook Inlet area.

There are a plethora of waterways in the Borough, that support the extensive aquaculture economies. Two important water habitats for wildlife are the Chickaloon River Flats, which is a major saltwater estuary, and the Kenai National Wildlife Refuge. The refuge is drained by numerous waterways including:

- Kenai River
- Anchor River
- Six Mile Creek
- Fox River
- Snow River
- Chuitna River
- Trail Creek
- Palmer Creek
- Chakachatna River
- Rocky River⁶

Climate

Winter

The Borough has relatively mild winters with the average temperature ranging from 4 – (-38) degrees Fahrenheit (F). Winter is short by Alaskan standards lasting from December to February. The winter season has far less sunlight, the shortest day of the year, December 20, has only 5 hours and 43 minutes of sunlight. The average snowfall varies greatly based on location. The greatest average snowfall is in Hope (89.5 inches), and the smallest average snowfall is in Nikiski (33 inches). Many other communities in the Borough have average snowfalls more similar to Hope.

Spring

Spring is short, lasting from March until May. This is when the snow begins to melt, and the temperature and amount of daylight are increasing. This is the time of year people use for harvesting, particularly of perennial plants such as: fiddleheads, young marsh marigolds, and Devil's club.

Summer

The summers are mild, with temperatures ranging from 46-70 degrees F. Summer lasts from June through August, and is prime fishing season. The average precipitation ranges from a high of 66 inches in Seward, to a low of 18 inches in Nikiski. Summer brings much more sunlight, the longest day of the year, June 21st, has 17 hours and 4 minutes of daylight.

Fall

Beginning in September, as many of the tourists and sport fisherman have left, the level of precipitation increases (when compared to the spring months). Many seasonal businesses close up for the winter. The temperature begins to drop from an average high of 57 degrees F in September to an average high of 31 degrees F in November.

Human Capital

Population and Age

An estimated 58,934 people lived in the KPB in 2020. From 2011 to 2020, population in the borough increased on average 0.6 percent annually.⁷ Although this population growth was modest over the decade, it is noteworthy that it exceeded other parts of Alaska, including Anchorage.

Borough Wide Population Over Time

Total Kenai Peninsula Borough population estimates, 2011-2020.

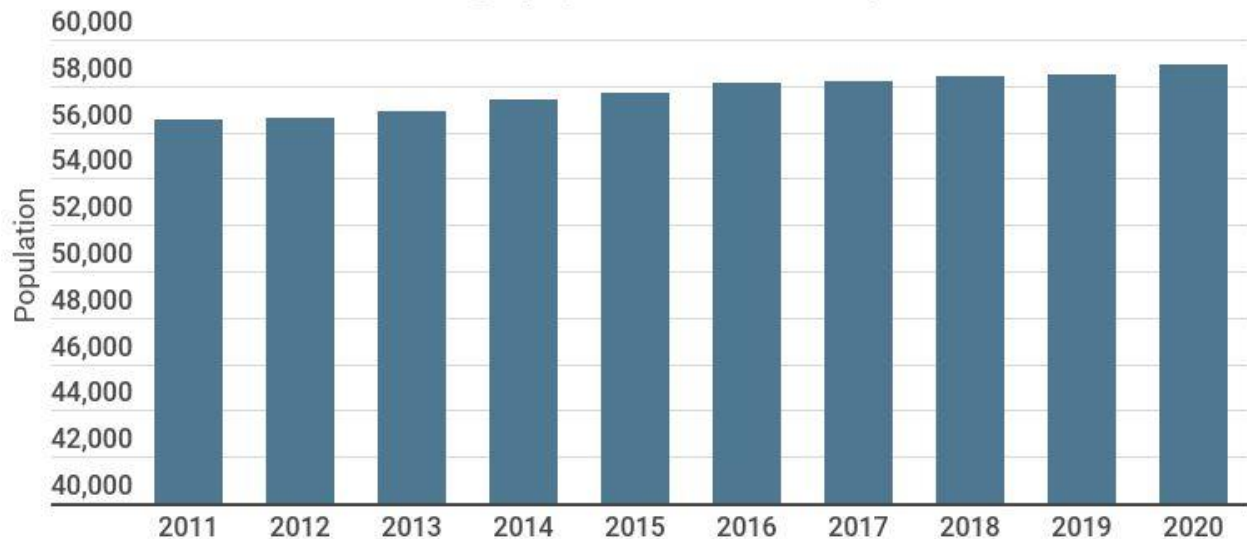


Figure 2: Total KPB population estimates.

Source: AKDOLWD, 2011-2020.

By the year 2045, the population is projected to grow by roughly 6 percent. This growth translates into a projected 63,447 residents, which would suggest an average annual growth of 0.26 percent. After the year 2030, population growth is expected to slow for both Alaska and the Kenai, but Peninsula growth rates will decline more sharply than the state overall as the state should grow at an annual rate of 0.29 percent through 2045.⁸

Projected Growth in Kenai Peninsula Borough

Projected population of Kenai Peninsula Borough, 2015-2045.

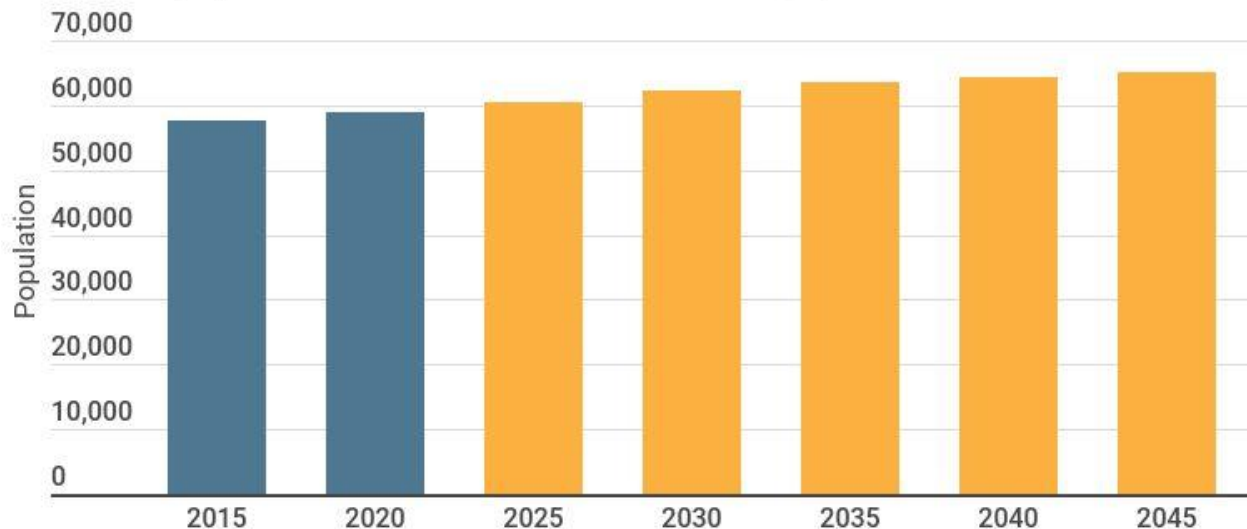


Figure 3: Projected population of KPB.
Source: AKDOLWD, 2015-2045.

At the community level, growth rates vary considerably. The bedroom communities of the Central Peninsula, a highway accessible area that spans from Sterling to Kasilof, showed constant average annual growth over the last decade. This includes Ridgeway, Kalifornsky, and Salmatof, all located a short drive from the commercial centers of Soldotna and Kenai. One exception to region-wide steady growth was Seward, which lost population over the last decade.

The small coastal communities of the South Peninsula such as Ninilchik, Tyonek, and Seldovia were more likely to see a shrinking population. Anchor Point, Clam Gulch, and Diamond Ridge, however, showed steady annual growth. Highway access, buildable land, and proximity to an existing population center seem to be the biggest predictors of growth. Point Possession, a remote area at the mouth of the Swanson River, saw the most growth, although on a small scale. Over the last decade the Point Possession's population is estimated to have grown from a population of 3 in 2011 to 54 in 2020.⁹

Population of Kenai Peninsula Communities, 2020		
Community	Population	Average Annual Growth (2011-2020)
Kalifornsky	8,701	1.1%
Kenai	7,096	0.0%
Sterling	6,094	0.8%
Homer city	5,513	1.0%
Nikiski	4,579	0.2%
Soldotna city	4,236	0.2%
Seward city	2,509	-0.7%
Fritz Creek	2,246	1.6%
Ridgeway	2,188	0.8%
Bear Creek	2,145	1.0%
Anchor Point	2,123	1.0%
Cohoe	1,548	1.3%
Diamond Ridge	1,355	1.7%
Salamatof	1,157	1.8%
Funny River	1,071	2.2%
Ninilchik	826	-0.6%
Fox River	668	-0.2%
Happy Valley	659	1.1%
Kasilof	532	-0.3%
Kachemak City	529	1.2%
Nikolaevsk	294	-0.8%
Cooper Landing	275	-0.5%
Nanwalek	273	0.7%
Moose Pass	246	1.2%
Clam Gulch	212	2.0%
Hope	211	1.0%
Seldovia	203	-2.0%
Seldovia Village	191	1.6%
Port Graham	182	0.3%
Tyonek	150	-1.2%
Lowell Point	83	0.4%
Primrose	75	-0.4%
Halibut Cove	71	-0.7%
Crown Point	68	-0.8%
Point Possession	54	170.0%
Beluga	24	2.0%
Sunrise	12	-3.3%
Borough Total	58,934	0.6%

Table 1: Population of Kenai Peninsula Communities.
Source: AKDOLWD, 2020.

In any region, there are two main components of population change: natural increase and net migration. Natural increase is based on birth and death rates, while net migration reflects movement to and from

the region. From 2016 to 2020 the population in KPB increased by 824 residents. Over this period, the majority of population growth was driven by natural increase. The region saw net out-migration from 2016 to 2019, with 2020 being the first year with strong in-migration.¹⁰

Net Migration to Kenai Peninsula Borough

Population moving to/from the Kenai Peninsula, 2011-2020.

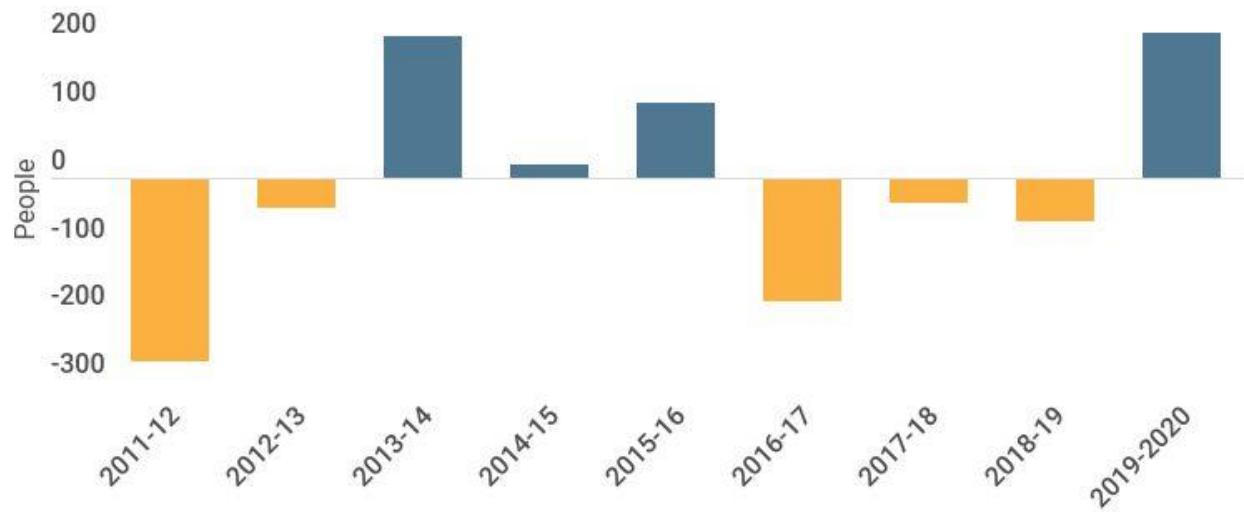


Figure 4: Migration to/from the Kenai Peninsula.
Source: AKDOLWD, 2011-2020.

Of the 213 individuals who migrated to KPB in 2020, the majority migrated from out-of-state or the Anchorage Municipality. The flow of population out of the region primarily came from the same areas.¹¹

Migration to/from Kenai Peninsula by Number of PFD Applications		
Community	In-migration	Out-migration
Outside Alaska	4,138	3,547
Anchorage Municipality	626	509
Matanuska-Susitna Borough	214	251
Fairbanks North Star Borough	113	105
Kodiak Island Borough	48	19
Bethel Census Area	32	17
Juneau City and Borough	31	30
Ketchikan Gateway Borough	23	12
Kusilvak Census Area	21	10
Chugach Census Area	20	7
Nome Census Area	14	6
Northwest Arctic Borough	14	11
Sitka City and Borough	12	11
Southeast Fairbanks Census Area	12	8
Yukon-Koyukuk Census Area	11	4
Denali Borough	10	0
Other Regions of Alaska	58	45
Total	5,397	4,592

Table 2 Migration to/from Kenai Peninsula by Number of PFD Applications.
Source: AKDOLWD, 2020.

The regions economically active population (individuals between the ages of 20 and 65) makes up 58.5 percent of the borough’s total population. Statewide, the share of economically active population was 61.3 percent in 2020.¹²

Population by Age Group

Kenai Peninsula Borough population by age group, 2020.

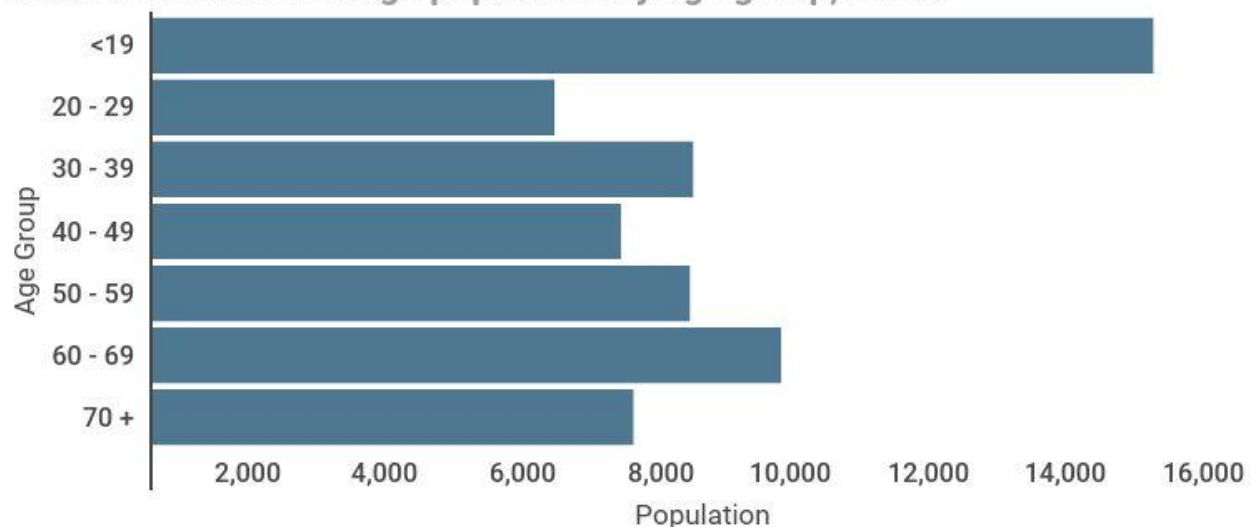


Figure 5: KPB population by Age Group.
Source: AKDOLWD, 2020.

However, population projections generated by the State of Alaska Department of Labor and Workforce Development estimate that the portion of economically active population will shrink and the share of retired and elderly individuals will grow.¹³ Labor availability is a key component of economic resilience. If this trend continues it will pose a challenge to the regional economy.

Population Growth Among the Age Groups

Projected economically active population and population over 65 years old in the Kenai Peninsula Borough, 2020-2045.

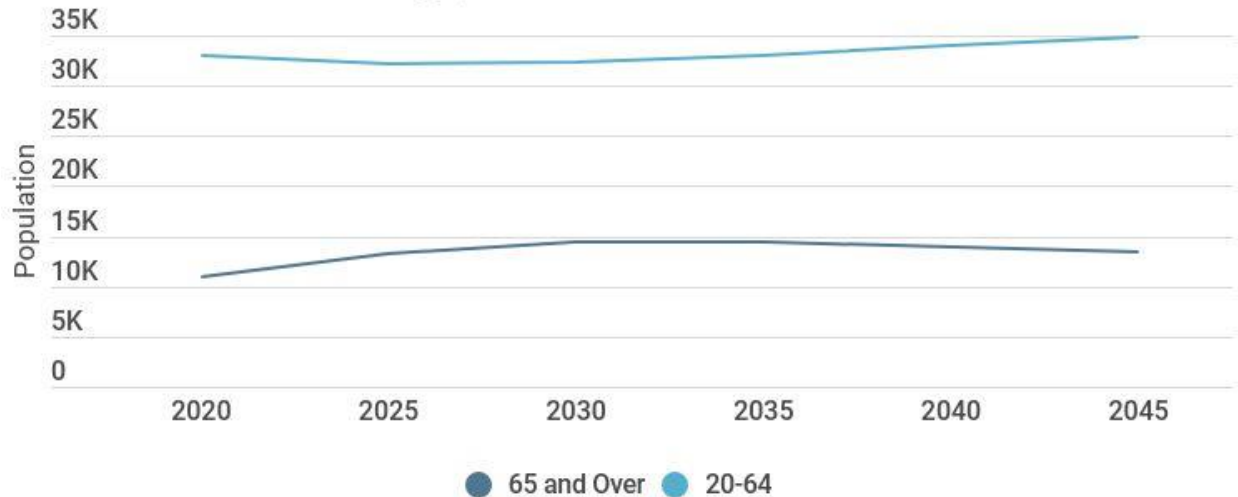


Figure 6: Projected economically active population vs. population over 65 in KPB.
Source: AKDOLWD.

Race and Ethnicity

KPB is less ethnically diverse than the state as a whole. The majority of Peninsula residents are white (83 percent in 2019, compared to about 65 percent statewide). Making up approximately 8 percent of the total population, 'American Indian and Alaska Native' is the second largest group in the region.¹⁴

Self-Identified Race in Kenai Peninsula and Alaska

Self-identified race as a percent of total population, 2019.

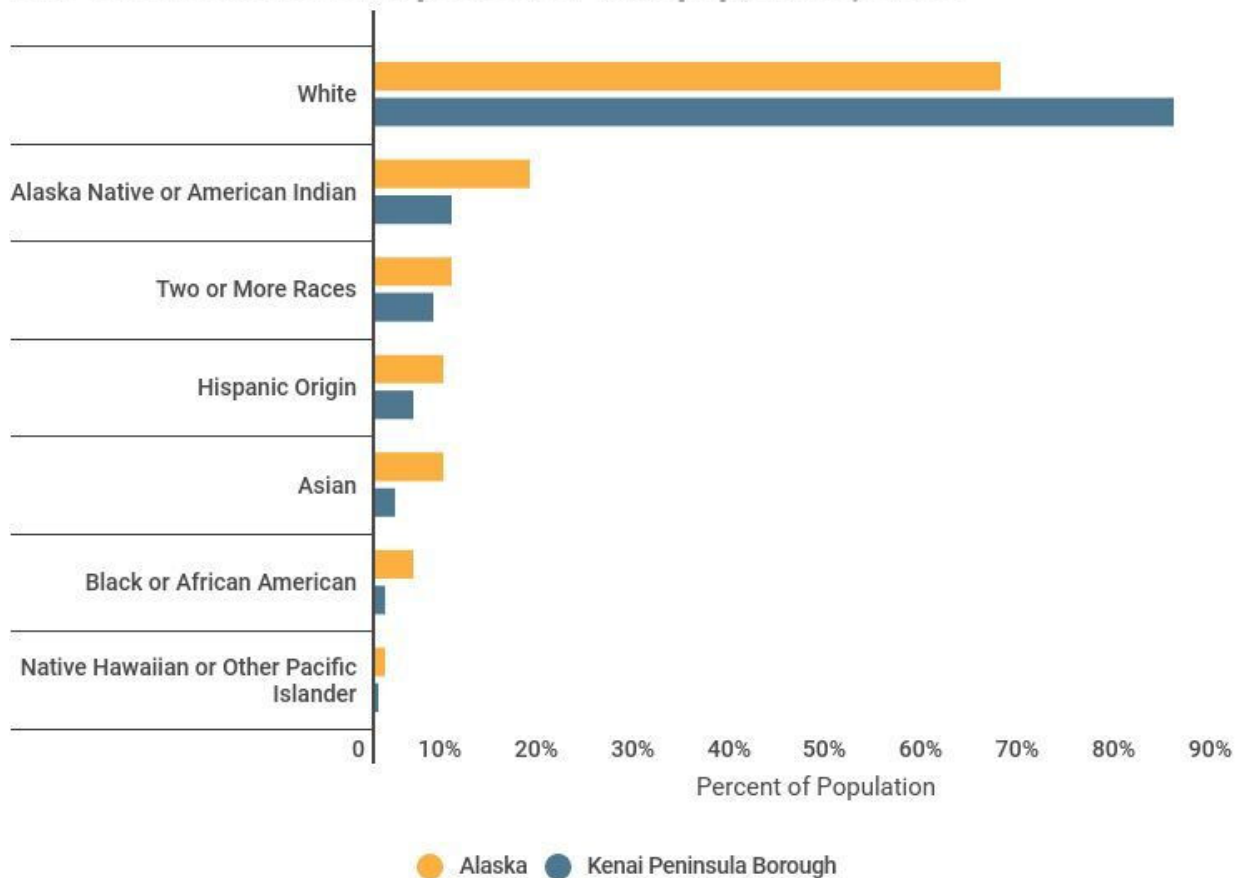


Figure 7: Self-identified race as a percent of total population in KPB.
Source: AKDOLWD, 2019.

Employment

The Kenai Peninsula region hosted an average of 24,858 jobs in 2019. Jobs in the region experienced a dramatic decrease in 2020. In September 2020, the most recent month with published job estimates, 24,346 jobs were recorded in the region, 1,886 fewer jobs than in the same month the previous year. These losses are largely a result of the economic impacts of the COVID-19 pandemic. The pre-pandemic job numbers represent the beginning of a recovery for the regional economy from the 2016 statewide recession, during which KPB lost approximately 600 jobs from the region’s 2015 peak.¹⁵

Change in Employment in the Kenai Peninsula Borough

Monthly year-over-year employment change in the Kenai Peninsula Borough, 2011-2020.

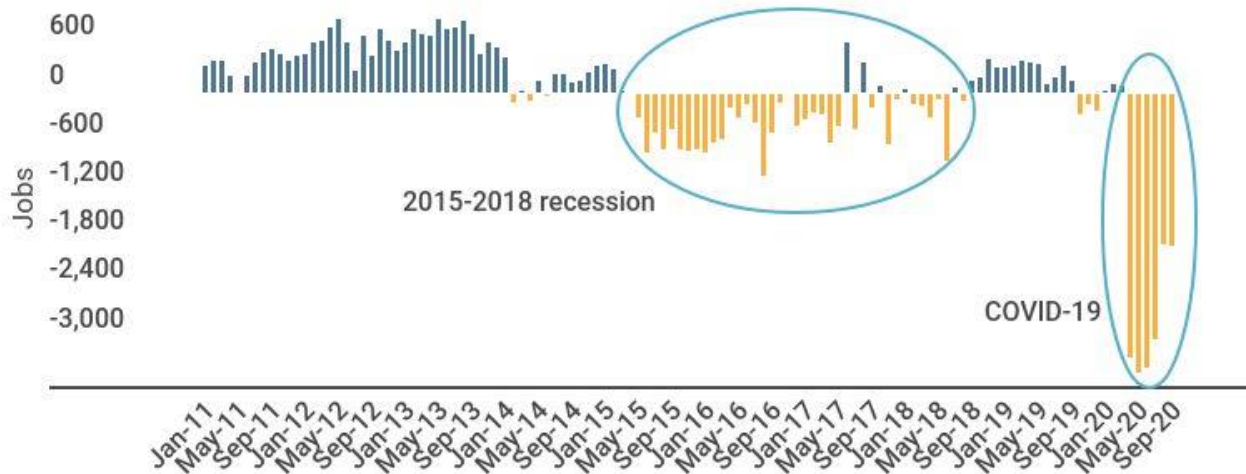


Figure 8: Monthly year-over-year employment change in KPB.
Source: QCEW, 2011-2020.

The Kenai Peninsula is home to a mix of established and emerging industries. Using data collected by Quarterly Census of Employment and Wages (QCEW), ‘Government’ makes up the largest sector of employment in the region, employing 4,868 individuals in 2019. ‘Local Government’ represents the largest portion of that employment, with 3,723 employees working in local government across the borough.

Employment in the Kenai Peninsula Borough

Average annual employment in the Kenai Peninsula Borough, 2010-2019.

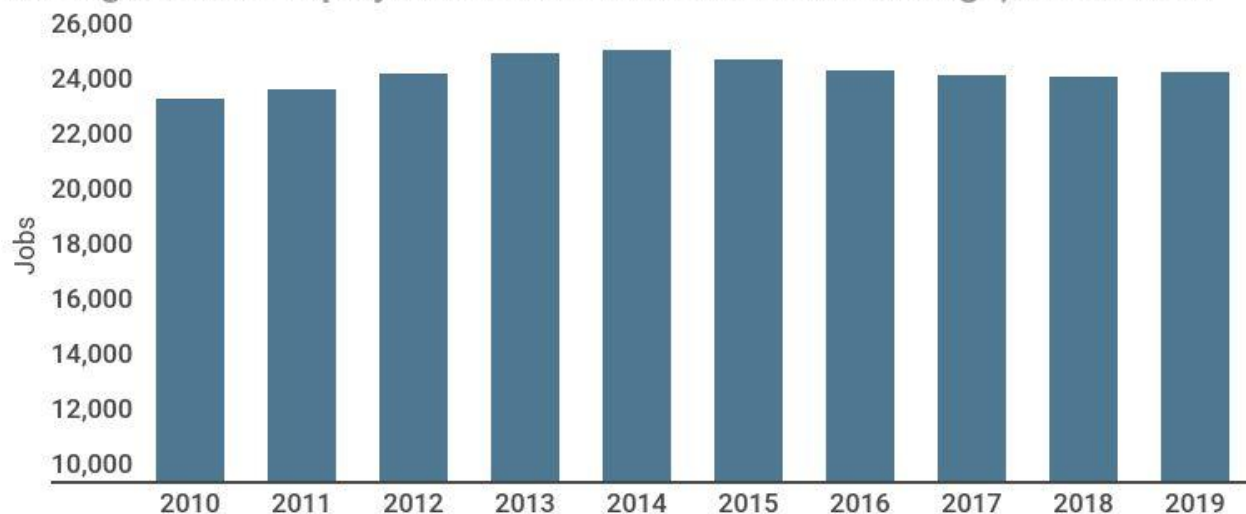


Figure 9: Average annual employment in KPB.
Source: QCEW, 2010-2019.

In the private sector, 'Trade, Transportation, and Utilities' is the largest sector of employment, with 12,288 individuals employed in 2019. This sector includes 'Wholesale Trade', 'Retail Trade', 'Transportation and Warehousing', and 'Utilities'.

'Educational and Health Services' sector, which includes 'Educational Services' and 'Health Care and Social Assistance', employs 3,313 individuals. The 'Leisure and Hospitality' industry hosts 2,683 employees, primarily in the accommodation and food services sector.

Employer Industries in the Kenai Peninsula Borough

Kenai Peninsula Borough industry employment by 2 digit NAICS, 2019.

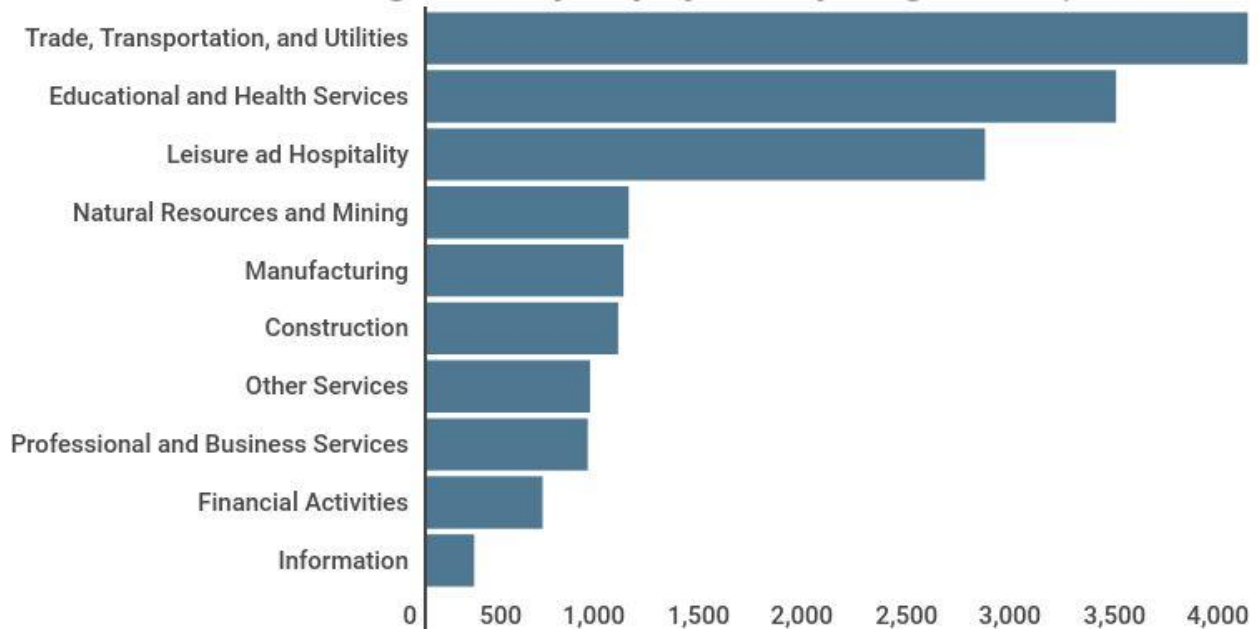


Figure 10: KPB industry employment by 2 digit NAICS.
Source: QCEW, 2019.

When analyzing employment in the region it is helpful to understand that many individuals are employed in industries outside of traditional definitions (i.e. fishing industry employment is not fully captured by the QCEW). The State of Alaska Department of Labor and Workforce Development generates separate estimates of employment in the fishing and seafood industry (fisheries employment is discussed separately in the industries section).

Education

The Kenai Peninsula region is home to a wealth of educational resources. With a population of approximately 11,000 school-aged children living in KPB, the educational resources across the region play an important role in the Kenai Peninsula economy. School-aged population is spread evenly across the different age-groups and cumulatively make up 25 percent of the borough's total population.¹⁶

School-Aged Population in Kenai Peninsula Borough

Population of school-aged individuals in the Kenai Peninsula Borough, 2020.

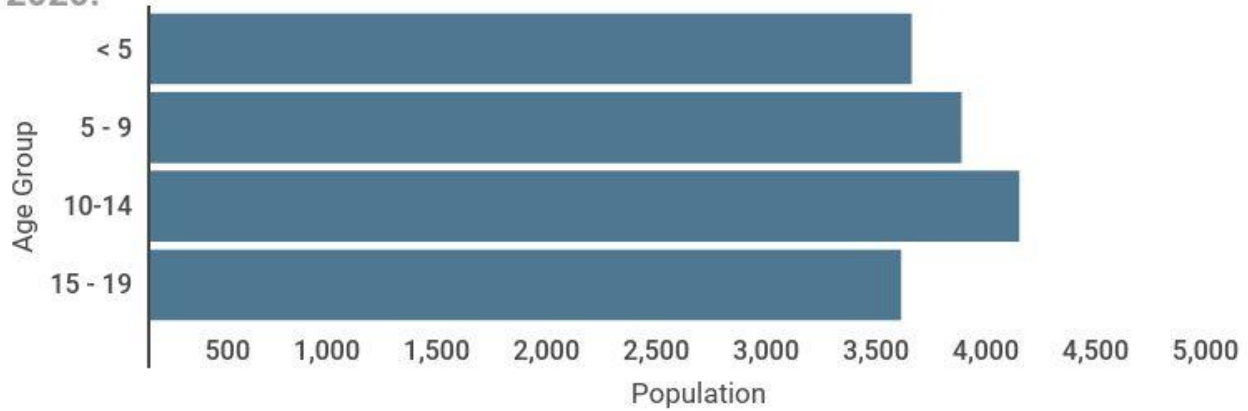


Figure 11: Population of school-aged individuals in KPB.
Source: AKDOLWD, 2020.

The Kenai Peninsula Borough School District operates 41 schools, serving 7,902 students from kindergarten to 12th grade in the 2020-2021 school year. An additional 183 students are enrolled in pre-kindergarten education.¹⁷ Students living in the region are also enrolled in any of the three private schools and statewide and nationwide homeschool programs; however, enrollment data for those programs is not publicly available.

Public School District Enrollment

Kenai Peninsula Borough School District K-12 enrollment, 2010-2020.

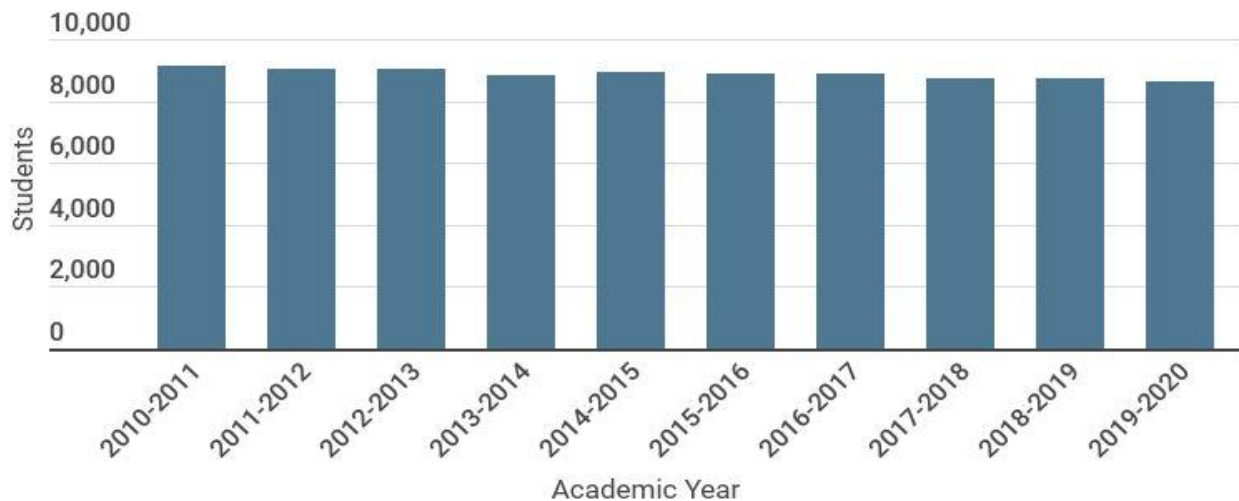


Figure 12: Kenai Peninsula Borough School District K-12 enrollment.
Source: AK Department of Education and Early Development, 2010-2020.

Over the last decade, the population of students enrolled at the Kenai Peninsula School District has declined while the population of school-aged individuals remained relatively steady. Despite limited information on private school and homeschool enrollment, this trend indicates increased enrollment at institutions outside of the Kenai Peninsula Borough School District.

Looking toward the future, the population of school age children in the borough is expected to increase by an average of 0.6 percent annually until 2045.¹⁸

Population Growth Among School-Aged Population

Projected Kenai Peninsula Borough population under 19, 2015-2045.

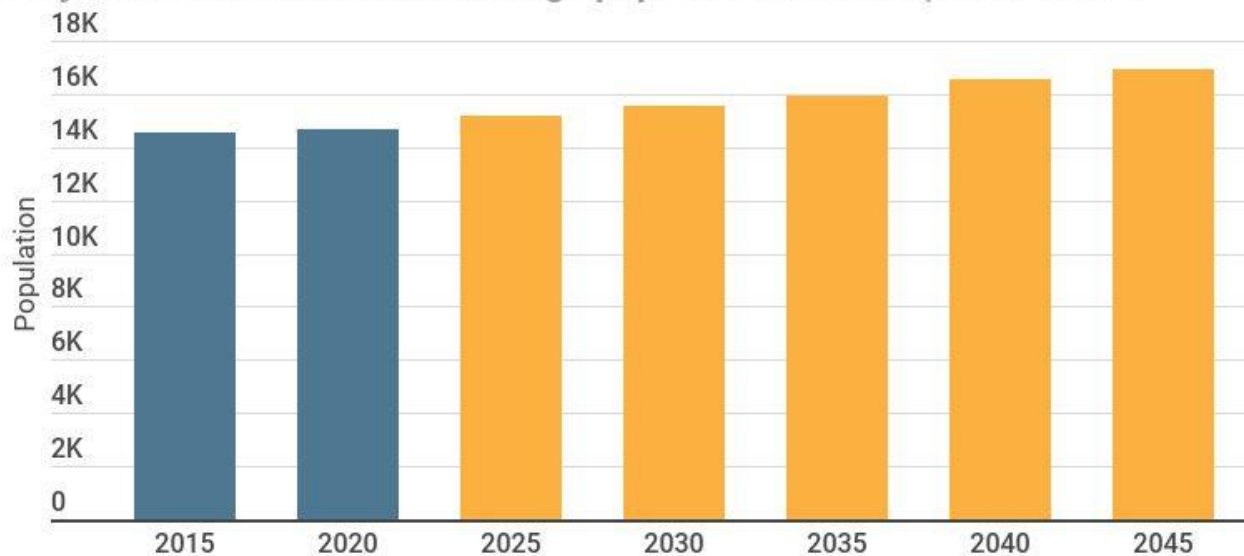


Figure 13: Projected KPB population under 19.
Source: AKDOLWD, 2015-2045.

The post-secondary educational institutions on the peninsula play an important role in the continuing education of residents. The University of Alaska Anchorage – Kenai Peninsula College had 1,736 students enrolled in fall of 2020.¹⁹ The Kenai Peninsula College has four campuses: Kenai River Campus in Soldotna, Kachemak Bay Campus in Homer, Resurrection Bay Extension Site in Seward, and the Anchorage Extension Site. Enrollment in the Kenai Peninsula College has declined over the last five years, a trend which is likely tied to decreased funding for the University of Alaska system and cuts to academic programming system wide.

Kenai Peninsula Community Campus Enrollment

Enrollment at UAA Kenai Peninsula College, 2016-2020.

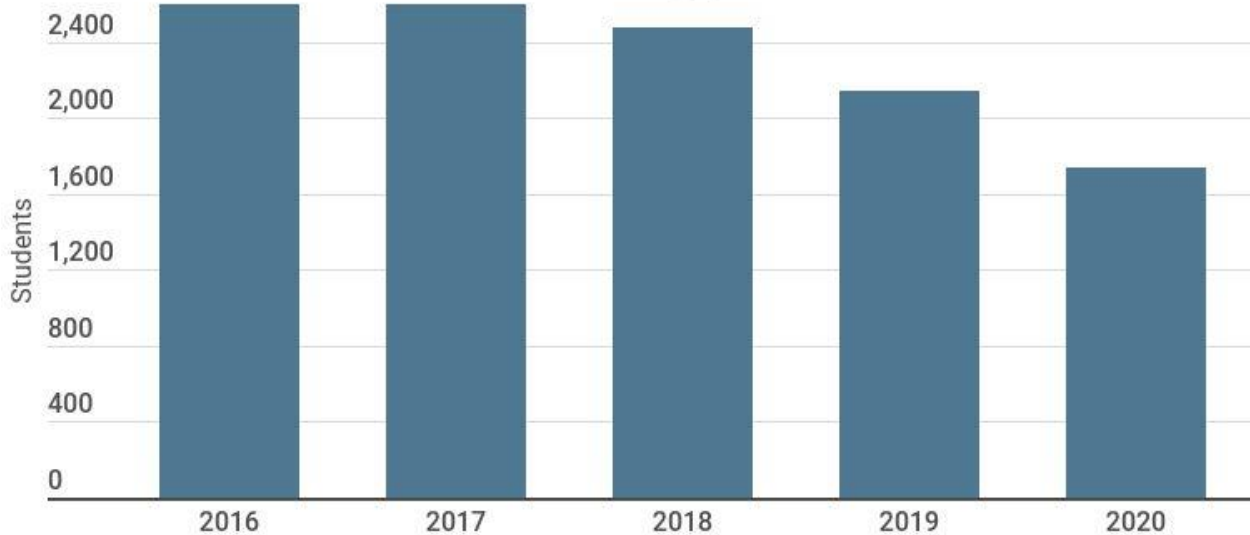


Figure 14: Enrollment at UAA Kenai Peninsula College. Source: UAA, 2016-2020.

The borough is also home to the Alaska Vocational Technical Center (AVTEC), which draws students from across the state to Seward to participate in the vocational training programs the center offers. In fall 2019, AVTEC had 631 students enrolled in programs ranging from culinary arts to industrial welding.²⁰ The table below includes a list of programs available at AVTEC.

AVTEC Vocational Programs	
Maritime Training Program	Industrial Electricity
Business and Office Technology	Industrial Welding
Construction Technology	Information Technology
Culinary Arts	Plumbing and Heating
Diesel/Heavy Equipment Technologies	Welding

Table 3: AVTEC Vocational Programs. Source: AVTEC, 2021.

Other technical and vocational programs are also present in the borough. These include, but are not limited to, the Alaska Construction Academy, Amundsen Educational Center, and Alaska Petroleum Academy.

Cost of Living and Quality of Life

Housing

Housing costs in the region are among the lowest in Alaska, with both median rent and sales prices lower than medians in the Municipality of Anchorage and Matanuska-Susitna Borough. The median rent price in was \$918 in 2020.²¹ During the same period, the average single-family home sales price in the region was \$298,797.²² This means the average home on the Kenai Peninsula is more than \$100,000 cheaper than the average Anchorage home, and almost \$13,000 less than the Mat-Su average.

KPB Housing Costs, 2020			
	KPB	Mat-Su	Anchorage
Median Rent	\$918	\$1,060	\$1,090
Average Single-Family Loan Value	\$260,458	\$272,517	\$347,093
Average Single-Family Sales Price	\$298,797	\$311,686	\$402,717

Table 4: KPB Housing Costs.
Source: AKDOLWD, 2020.

Housing affordability is an important component of quality of life. The 2018 Statewide Housing Assessment, conducted by the Alaska Housing Authority, determined that in the KPB, 27 percent of households were considered cost burdened. Cost burdened is defined as households which spend more than 30 percent of household income on total housing costs.²³ This is a smaller proportion than Anchorage or the state as a whole.

Cost Burdened Households on the Kenai Peninsula

Percent of households considered cost burdened in Kenai Peninsula Borough, 2018.

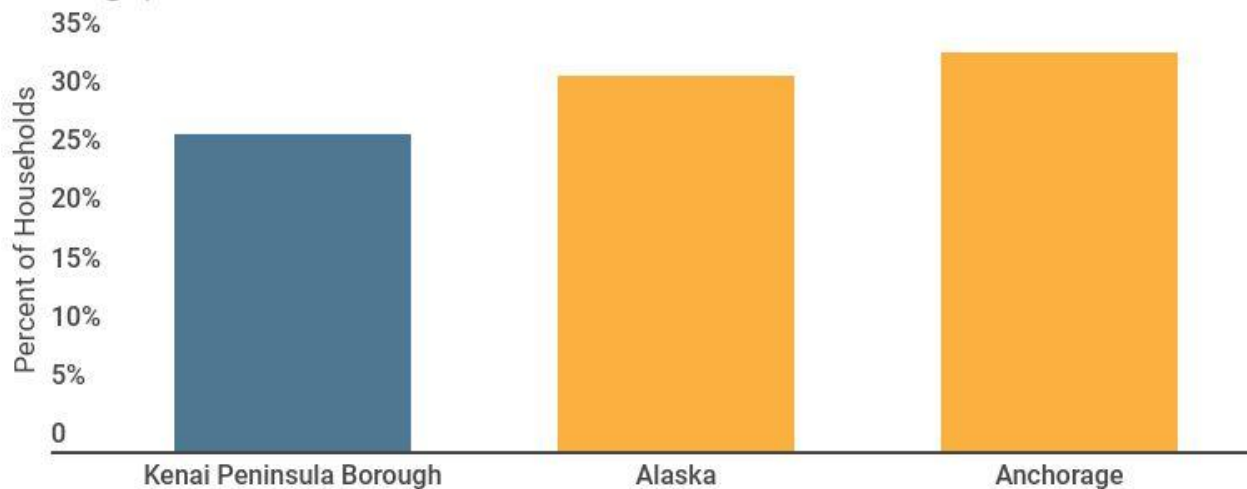


Figure 15: Percent of households considered cost burdened in KPB.
Source: AHFC, 2018.

Housing availability is another component of housing quality. In 2020, the region saw the construction of 95 new housing units across the communities of Seward, Soldotna, Kenai, Homer, and Seldovia. Homer and Kenai experienced the most construction, with 55 and 18 new housing units built, respectively. In both Homer and Kenai, new housing units were predominantly single-family dwellings.²⁴

Housing on the Kenai Peninsula

New housing units built in the Kenai Peninsula Borough, 2010-2019.

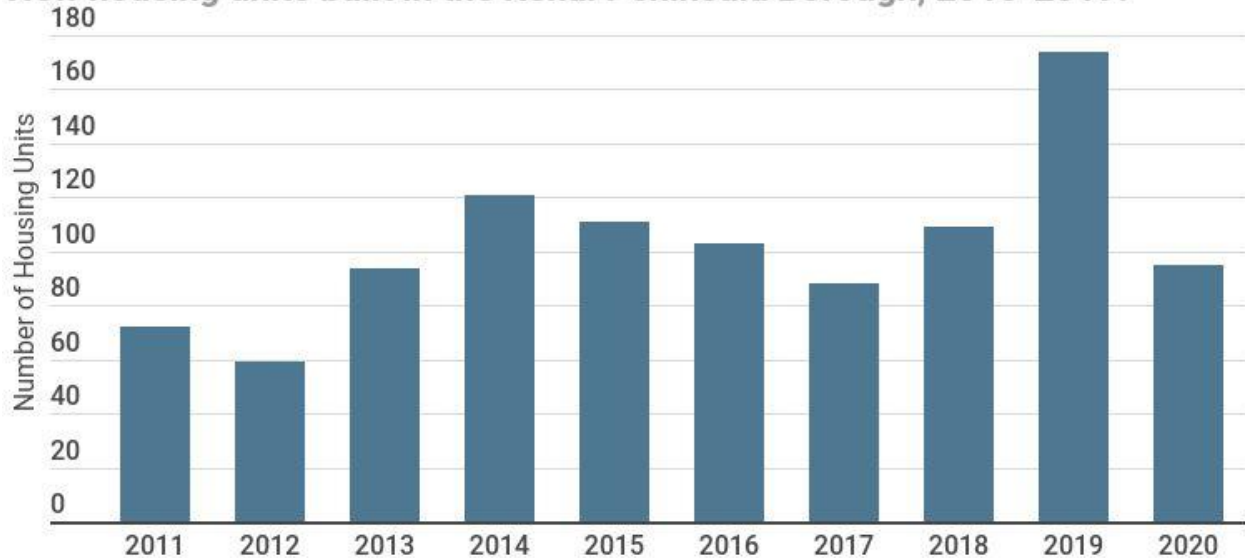


Figure 16: New housing units built in KPB.
Source: AHFC, 2011-2020.

Across Alaska, housing conditions are a critical indicator of quality of life. Draftiness, housing stock without complete plumbing, and increased risk of indoor air quality (IAQ) issues are all indicators of housing stock quality. On average, housing units on the Kenai Peninsula are a lower risk for IAQ issues, and fewer are considered drafty compared to Anchorage and the state as a whole. However, a larger percentage of homes have incomplete plumbing, compared to Anchorage and statewide.²⁵

KPB Housing Stock Quality, 2018			
	KPB	Anchorage	Statewide
Housing stock at risk for IAQ issues	59%	69%	56%
Occupied Housing Considered Drafty	29%	33%	36%
Homes with Incomplete Plumbing	5%	1%	1%

Table 5: KPB House Stock Quality.
Source: AHFC, 2018.

With the expected growth in senior population in the borough, senior housing is expected to become a growing concern. In 2016, it was estimated that KPB had 22 senior citizens per licensed senior facility bed, significantly higher than the statewide average of 15 seniors per licensed senior facility bed. In the next ten years, this statistic is estimated to grow to 39 senior citizens per licensed senior facility bed. While not every senior citizen is in need of a bed at a care facility, the statistic does represent a growing concern over senior housing and care capacity in the region.²⁶

Senior Housing on the Kenai Peninsula

Projected senior citizens per licensed senior facility bed in Kenai Peninsula Borough, 2016-2030.

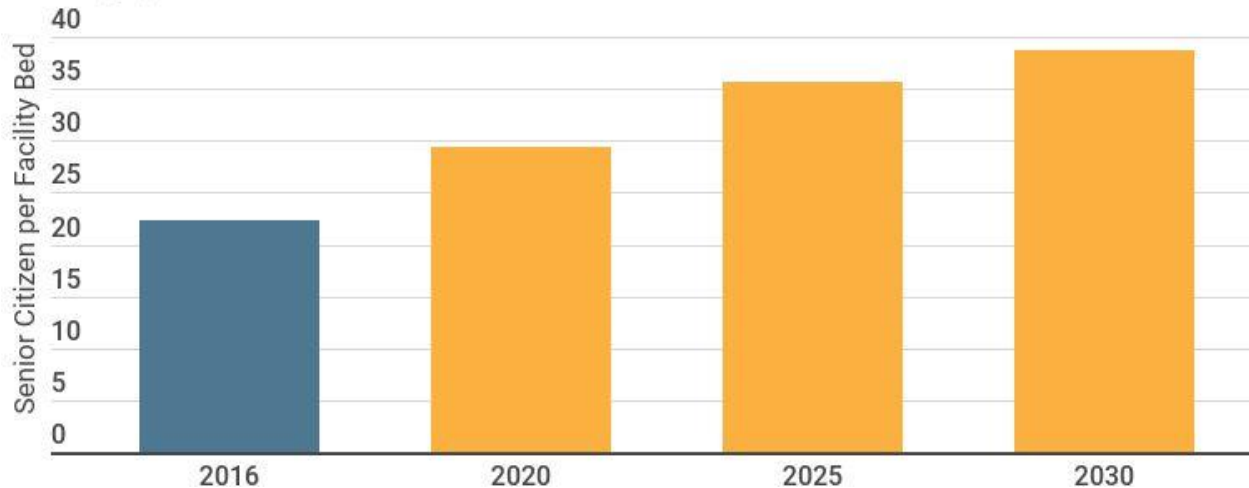


Figure 17: Projected senior citizens per licensed senior facility bed in KPB.
Source: AHFC: 2016-2030.

Income and Poverty

According to the U.S. Census Bureau American Community Survey, median household income in the borough is \$66,064. As a region with such a wide spread of urban and rural communities, household income varies widely across KPB. In the more urban center of Soldotna, the median annual household income is \$60,491. In Nanwalek, on the southern end of the borough across Kachemak Bay from Homer, the median household income is \$43,750. In Seward, the median household income is \$73,611.²⁷

Borough-wide, real average monthly wages have decreased over the last five year. In 2019, average wages in KPB were \$4,355, lower than the statewide monthly average of \$4,790. Average monthly wages have been declining in the Borough since 2015, with a more dramatic drop in 2019.²⁸

Income on the Kenai Peninsula

Average monthly wages in the Kenai Peninsula Borough, 2010-2019 in real 2019 dollars.

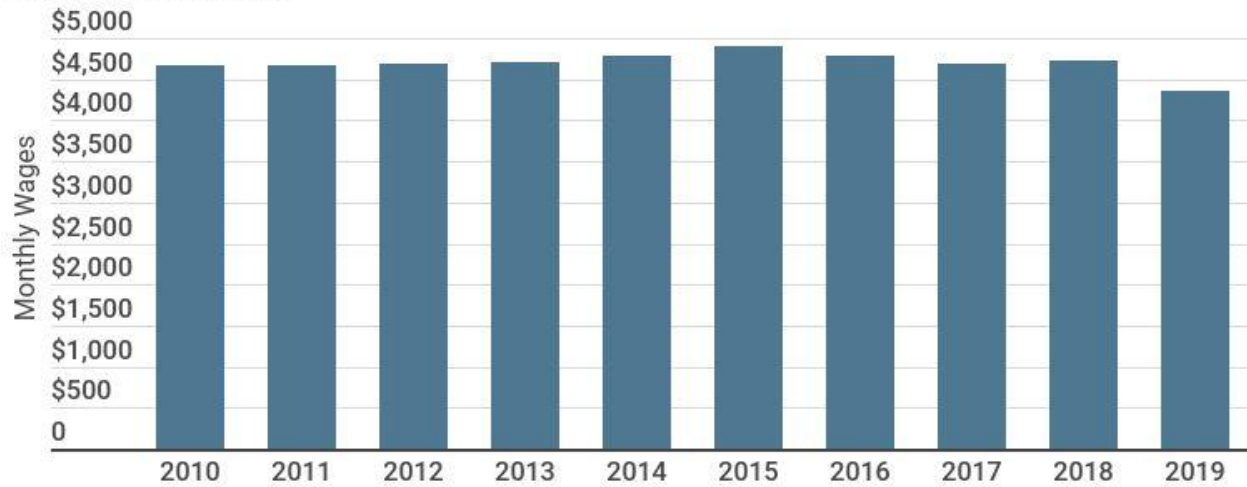


Figure 18: Average monthly wages in KPB, in real 2019 dollars.
Source: QCEW, 2010-2019.

Unemployment in the region is lower than statewide. The most recent unemployment rate, as of December 2020, was 7.3 percent. Employment in the region was affected by the COVID-19 pandemic. At its peak in April 2020, the unemployment rate in the region reached 17.2 percent.²⁹ It should be noted that the unemployment rate is not always an accurate measurement of joblessness in a given region, as it does not measure individuals who have dropped out of the workforce.

Kenai Peninsula Borough Unemployment Rate

Average annual unemployment rate in the Kenai Peninsula Borough and State of Alaska, 2011-2020.

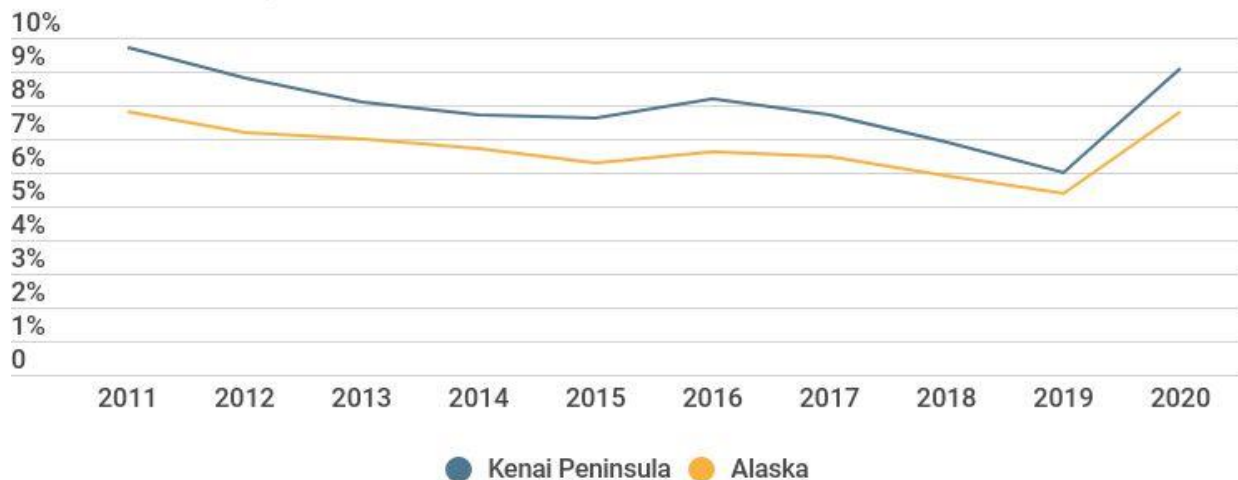


Figure 19: Average annual unemployment rate in KPB and state of Alaska.
Source: AKDOLWD, 2011-2020.

An estimated 12 percent of the population in the borough lives below the poverty line, slightly higher than the statewide average of ten percent.³⁰ The population of KPB is spread across rural and urban setting, and the higher-than-average poverty rate in the borough is partially driven by high rates in remote areas. In Nanwalek, one in five households lives in poverty.

Sample of Community Level Poverty Rates in KPB, 2019	
Community	Poverty Rate
Soldotna	8.6%
Homer	10.3%
Nanwalek	21.7%
Cooper Landing	7%

Table 6: Sample of Community Level Poverty Rates.
Source: American Community Survey, 2019 5-Year Estimates.

The Denali Commission generates a list of communities in Alaska considered “distressed.” Distressed communities are defined as communities meeting a number of criteria including:

- Community-wide average income compared to full-time minimum wage earnings;
- Percentage of population earning greater than the full-time minimum wage earning; and,
- Percentage of population engaged in year-round wage and salary employment.

Twenty-three of the 37 communities in KPB are considered distressed.³¹ Table 7 presents a list of distressed communities in the borough.

Distressed Communities in KPB, 2020	
Anchor Point	Nanwalek
Beluga	Nikolaevsk
Cohoe	Ninilchik
Cooper Landing	Point Possession
Crown Point	Port Graham
Diamond Ridge	Primrose
Fox River	Salamantof
Fritz Creek	Seldovia
Funny River	Seldovia Village
Halibut Cove	Tyonek
Happy Valley	
Hope	
Kachemak	

Table 7: Distressed Communities in KPB.
Source: Denali Commission, 2020.

Cost of Living

Cost of living in the borough can be high compared to more urban areas of Alaska, like Anchorage, and the national average. Cost of living index information can be limited in Alaska outside of Anchorage; however, the Department of Defense Overseas Cost of Living Allowance Index includes select communities in the Borough and allows some comparison of cost of living in the region.

Cost of Living on the Kenai Peninsula

Department of Defense Overseas Cost of Living Adjustment index for select Kenai Peninsula communities, 2020.

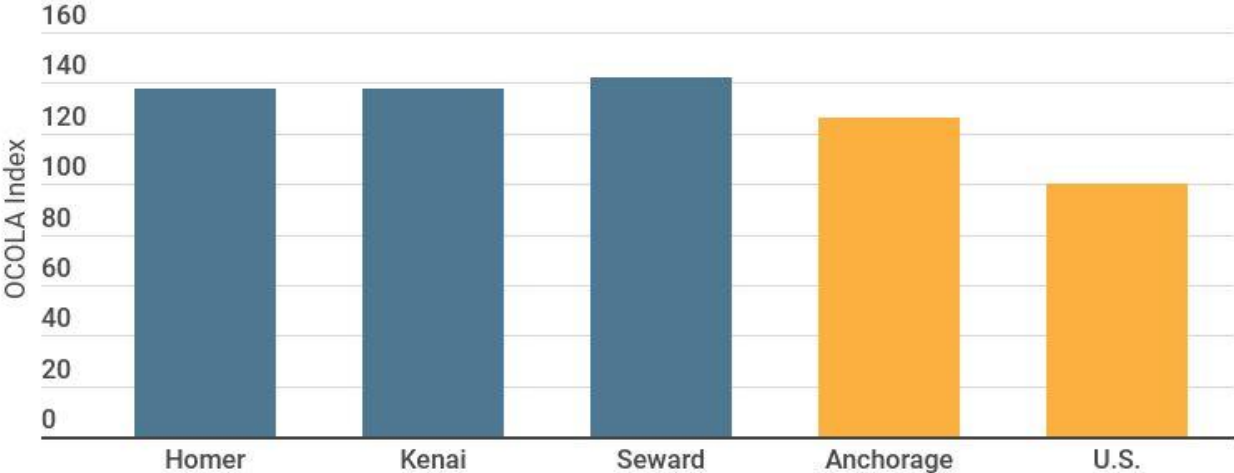


Figure 20: DOD Overseas Cost of Living Adjustment index of select Kenai Peninsula communities. Source: DOD, 2020.

While the housing costs in the region are lower on average than other areas of the state, other variables influencing cost of living in the region are more expensive. Power costs in the region, from Homer Electric Association (HEA), are among highest of the electric cost on the integrated system of utilities in urban Alaska, referred to as the Railbelt. Select areas of the peninsula are served by Chugach Electric Association (CEA), with some of the lowest electric rates across urban Alaska

Electricity Cost Comparison

Kenai Peninsula electric cost compared to other urban Alaska utilities, 2020.

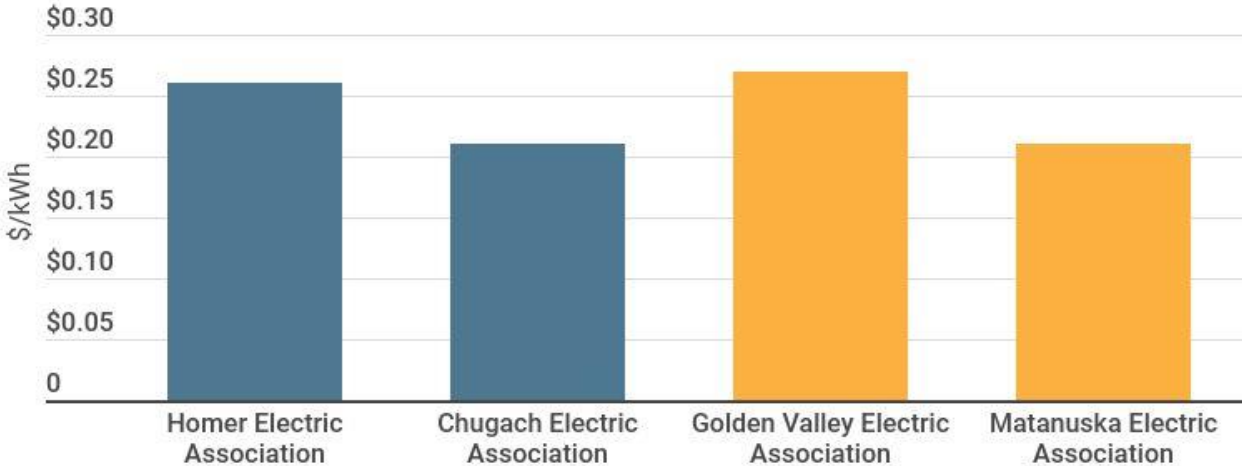


Figure 21: Kenai Peninsula electric utility cost compared to other urban Alaska utilities. Source: Regulatory Commission of Alaska, 2020.

Food costs in the region are slightly higher than other urban regions of Alaska. The University of Alaska Fairbanks Cooperative Extension Service tracks food costs across Alaska. In 2018 the average food cost for a family of four in Kenai was estimated to be \$184.02 per week.³²

Kenai Food Cost Comparison

Weekly food cost for family of four in Kenai, 2018.

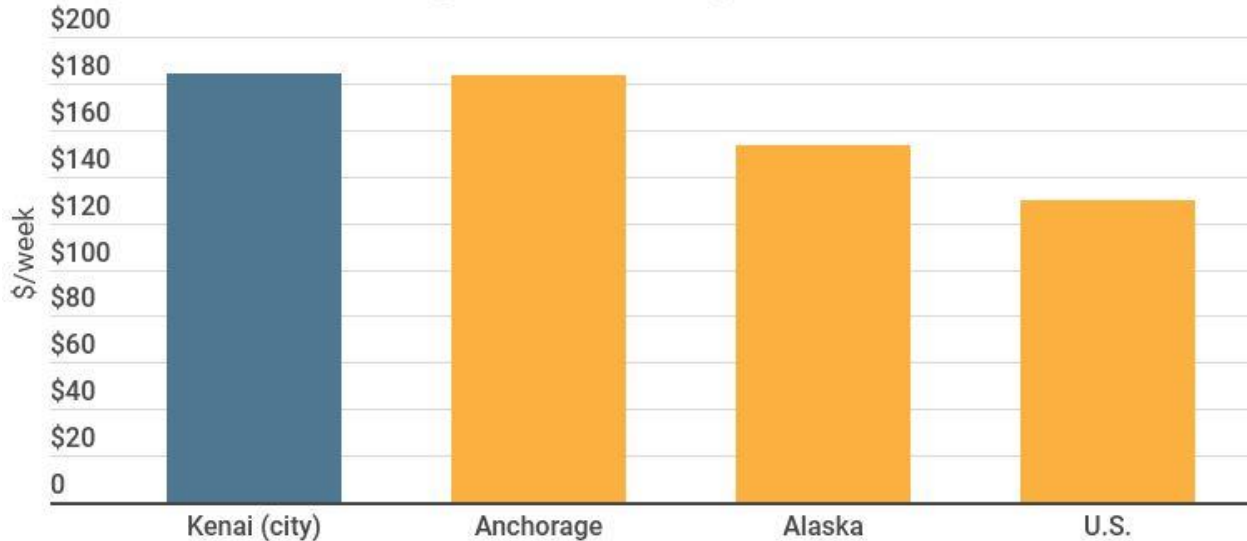


Figure 22: Weekly food cost for family of four in Kenai.
Source: UAF, 2018.

Energy

Electricity in the region is primarily provided by HEA, which serves the majority of Kenai Peninsula residents. HEA provides electricity at a lower cost to customers as a result of access to affordable natural gas and economies of scale. Northwest regions of the peninsula are served by CEA. CEA also serves Tyonek, a remote community in the borough on the northern side of the Cook Inlet. The City of Seward manages its own electric utility, serving approximately 3,000 customers.

Electricity Costs Across KPB, 2020		
Utility	Energy Source	Cost per kWh
Homer Electric Association	Natural Gas, Hydroelectric, Diesel	\$0.27
Chugach Electric Association	Natural Gas, Wind, Hydroelectric	\$0.21
City of Seward	Natural Gas, Hydroelectric	\$0.24

Table 8: Electricity costs across KPB.
Source: Regulatory Commission of Alaska and City of Seward, 2020.

Space heating in the region is fueled by a patchwork of energy sources. Parts of the borough, including Homer, Kenai, Nikiski, Sterling, and Soldotna, are served by ENSTAR Natural Gas Company which enables natural gas fueled heating. Other space heating is fueled by propane and heating fuel.

Fuel Cost by Source in KPB, 2020 and 2021	
Fuel Source	Cost
Natural Gas (\$/CCF)	\$1.09
Heating Fuel (\$/Gallon)*	\$2.55
Gasoline (\$/Gallon)*	\$2.60

Table 9: Fuel cost by source in KPB.

Source: Regulatory Commission of Alaska, 2020 and Department of Community and Rural Affairs, 2020 and 2021.

*Note: Heating fuel and gasoline costs are for Homer, costs vary by community.

It should be noted that access to the road system and local natural gas infrastructure helps to maintain lower fuel costs in more urban regions of the peninsula. In remote areas, communities off the road system, fuel costs are significantly higher. For example, Homer and Seldovia are the only two communities in the borough tracked by the State of Alaska Division of Community and Regional Affairs Fuel Price Survey. Homer is on the road system and in January 2021 heating fuel in the community was priced at \$2.55 per gallon. Across Kachemak Bay, and off the road system, the heating fuel price recorded in Seldovia during the same period was \$3.72 per gallon,³³ 46 percent higher than prices in Homer.

Communications

Approximately 84 percent of households in the borough have internet subscriptions, which is lower than in Anchorage, with 93 percent of households with internet access, and in Alaska, with an average of 88 percent of households. Of the households with internet access, 66 percent have broadband access. The remaining households utilize dial-up or satellite internet.³⁴

Broadband Access Across the Kenai Peninsula

Households with broadband access by type of access, 2019.

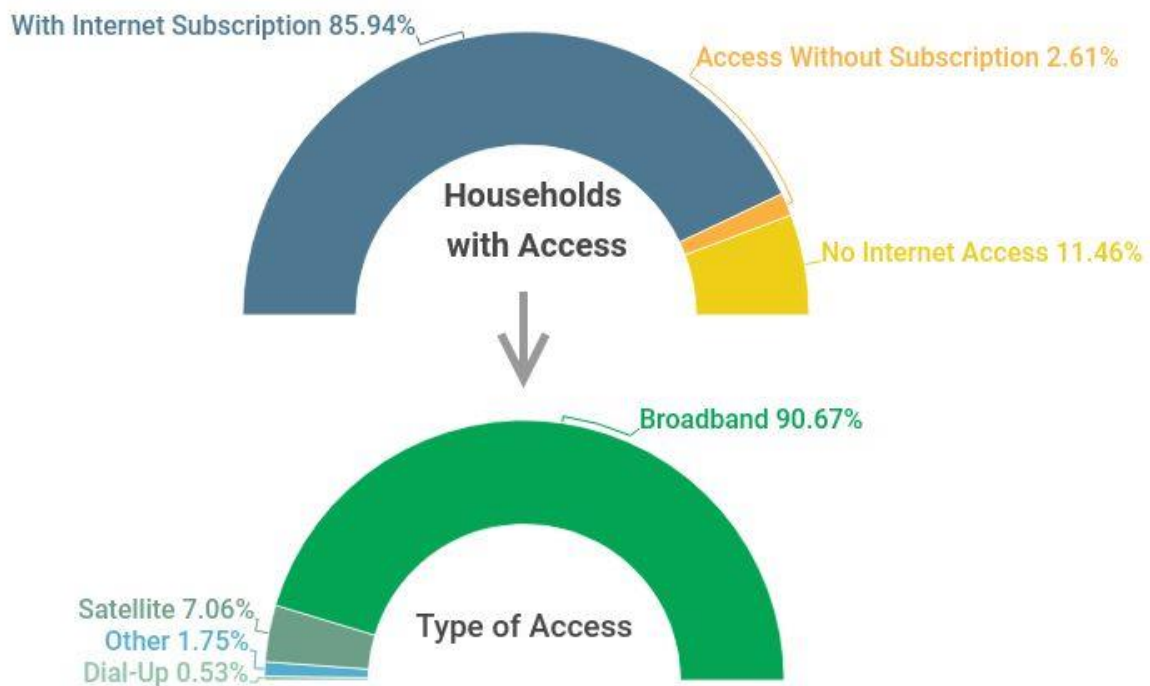


Figure 23: Households with broadband access by type of access.
Source: American Community Survey, 2019 5-Year Estimates.

However, the number of households with internet subscriptions is not a measurement of affordability and quality. Broadband quality and affordability can vary widely across the remote and urban areas of the Borough. Rural areas experience higher costs and slower speeds.

“Middle-mile” infrastructure, the infrastructure connecting networks coming into Alaska from the Lower 48 to the “last-mile”—smaller community level networks, in the region has expanded over the last decade. Portions of the region are also connected to GCI’s TERRA network and other GCI fiber networks.³⁵

In 2020, KPB allocated \$1.2 to \$2 million in CARES Act funding to improve public access to internet. That allocation is funding the construction of a new communication towers intended to expand broadband across underserved areas of the borough.³⁶

Infrastructure and Transportation

Roads

Large portions of the Borough are connected to the North American Highway System through Anchorage. The Seward and Sterling Highways are the primary arteries on the Kenai Peninsula and provide much of the region ground access to the rest of Alaska, Canada, and the Lower 48. The Kenai Spur Highway connects the large population centers of the Central Peninsula—Kenai, Nikiski, Ridgeway,

and Seldovia—to the Sterling Highway. At opposite ends of the Peninsula, the Seward and Sterling Highways connect Seward to Homer and enable the development of numerous communities like Moose Pass, Cooper Landing, and Anchor Point, which lie between. The regions relatively well-developed highway infrastructure acts as an enabler of economic activity, enabling the flow of people (including tourists), consumer goods, and construction materials at lower cost than regions dependent entirely on air transportation.

A number of communities and villages in the Southern Peninsula are not connected to the road system, including Seldovia, Nanwalek, and Port Graham. These communities are accessible by boat or air. On the western side of the Borough, the village of Tyonek is also only accessible by boat or air.

Disconnectedness from ground transportation creates challenges such as: difficulty receiving timely medical care, increased cost of living, and fewer employment opportunities than the rest of the Borough.

KPB maintains over 645 miles of roads, 95 percent gravel and 5 percent paved.³⁷ A project is underway to extend the Kenai Spur Road north, connecting the remote subdivisions of Gray Cliffs and Moose Point.³⁸

Air

There are both public and private airports in KPB, ranging from those that receive daily commercial service, such as Homer and Kenai, to remote gravel airstrips. Public airports include major hubs and airfields used for large carriers, jet liners, and international flights, as well as smaller public charter flights and personal aircraft. Private airports may require special permission, a private membership, or use of private charter flights. Most airports are private as there is a need to access many small, remote communities. “Flightseeing” tours are very popular among tourists, especially in Homer, Soldotna, and Kenai.

Kenai Peninsula Airports, 2020			
Location	Ownership	Type	Length (ft)
Anchor Point	Private	Gravel	2,500
Clam Gulch	Private	Water	2,000
Cooper Landing	Public	Gravel/Dirt	2,200
Homer	Public	Paved	6,701
Homer	Private	Gravel	1,250
Homer	Private	Gravel	2,400
Homer	Public	Water	2,501
Homer	Public	Water	3,000
Homer	Private	Turf	840
Hope	Public	Gravel	2,040
Kasilof	Public	Gravel	2,400
Kenai	Public	Paved	7,855
Kenai	Private	Gravel/Turf	2,600
Kenai	Private	Turf	2,400
Kenai	Private	Turf	2,640
Kenai	Public	Water	5,000
Kenai	Private	Turf	2,539
Kenai	Private	Water	4,500
Kenai	Private	Gravel	2,700
Nanwalek	Public	Gravel	1,850
Ninilchik	Public	Gravel	2,400
Port Graham	Public	Gravel/Dirt	1,975
Seldovia	Public	Gravel	1,845
Seward	Public	Paved	4,249
Soldotna	Private	Gravel/Dirt	2,800
Soldotna	Private	Turf	1,300
Soldotna	Private	Dirt	2,000
Sterling	Private	Gravel	1,750
Sterling	Private	Gravel	800
Sterling	Private	Gravel	1,300
Sterling	Private	Gravel	1,200
Sterling	Private	Turf	1,900
Sterling	Private	Gravel	2,400
Sterling	Private	Gravel	1,980
Sterling	Private	Gravel	1,504

Table 10: Kenai Peninsula Airports.

Source: Federal Aviation Administration, 2020.

Kenai Municipal Airport is the largest of airport in the region and serves as the primary collection and distribution center for scheduled passenger, cargo, and mail service. Regular commuter flights out of Kenai Municipal link the Central Peninsula to Anchorage, 60 air miles away.

In 2020, air service to the Kenai Peninsula by RavnAir, one of the primary commercial air service providers in the region, was reduced then eliminated due RavnAir declaring bankruptcy.³⁹ RavnAir has since resumed flights to Kenai Municipal Airport and Homer Airport.

Rail

Seward is the only community in KPB with rail access. The Alaska Railroad Corporation operates a rail line between Anchorage and Seward. The train is used as a major tourism artery in the summer, moving cruise ship passengers from Seward through to the rest of Alaska. In addition to cruise passengers, the railroad operates a passenger line between Anchorage and Seward. The train also moves freight (including coal from the Interior for export) in addition to passengers.

Marine Highway

The Alaska Marine Highway System (AMHS) serves Homer and Seldovia on the Kenai Peninsula. Overall, passenger traffic at both ports has decreased over the last five year, a trend which is tied to the decline in the AMHS operating budget and associated declines in scheduled dockings. However, Homer and Seldovia both saw increases in traffic in 2014, 2016, and 2018.

Alaska Marine Highway Traffic Trends Over Time

Total AMHS embarking and disembarking passengers at KPB ports, 2009-2018.

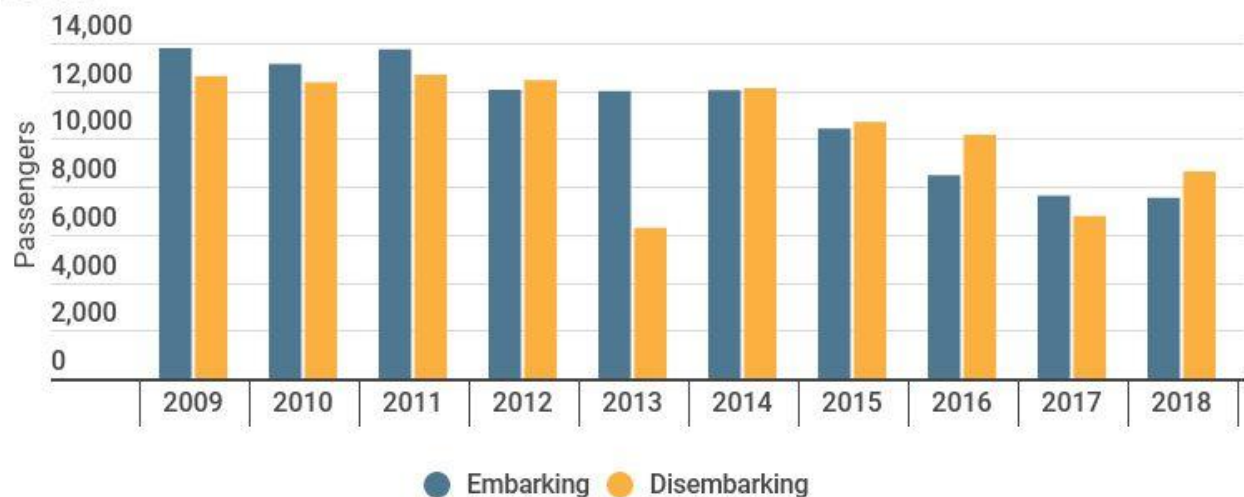


Figure 24: Total AMHS embarking and disembarking passengers at KPB ports.
Source: AMHS, 2009-2018.

Ferry service is a vital link between coastal communities and allows vehicles as well as passengers to access places like Seldovia, which are not on the road system. The Alaska Marine Highway System has suffered from financial insecurity, service cutbacks, and aging infrastructure in recent years.⁴⁰

Key Industry Sectors

The Kenai Peninsula economy is driven by the strength of a number established industries, including fisheries, health care, oil and gas, and tourism and recreation. A handful of emerging industries also

show signs of growth in the region, like agriculture and marine based sectors (aquaculture, marine services, and marine research). Almost all sectors saw employment loss as a result of the pandemic.

Fisheries

Key facts:

- Seward, Kenai, and Homer are in top 100 national ports for seafood landings.
- 73 million pounds landed in 2019.
- \$72 million paid to fishermen in 2019.
- Almost 1,600 borough residents own commercial fisheries permits.

The rich marine waters of Cook Inlet and the Gulf of Alaska have sustained the Kenai Peninsula's Dena'ina and Alutiiq people for millennia. Of more recent vintage is the region's commercial fisheries, which date back to the 1880s. Today, the commercial ports of Homer, Kenai, and Seward land tens of millions of pounds of salmon, halibut, and sablefish (black cod). In 2019, these three ports accounted for 73 million pounds of seafood, with an ex-vessel value (the price paid to fishermen) of \$72 million. That year, Seward ranked 22nd in the nation for landed weight, followed by Kenai (28th) and Homer (81st).⁴¹

In terms of employment, seafood processors may employ as many as 900 workers during the summer peak. However with the effects of COVID-19, in 2020 the seasonal peak was only about 600.⁴² No exact figure for the number of seafood harvesters is available, but 1,588 commercial permit holders lived in the Borough in 2020. Homer, Kenai, Soldotna, and Kasilof are home to the greatest numbers of permit holders.⁴³

The Alaska Department of Fish and Game (ADF&G) divide the waters around the Peninsula into two areas: Upper Cook Inlet, which includes all parts of the Inlet north of Anchor Point, and Lower Cook Inlet, encompassing waters to the south and along the outer south eastern coast from Homer to Seward. Upper Cook Inlet drift and set gillnet fisheries primarily target sockeye salmon, while Lower Cook Inlet purse seiners and set gillnetters focus on pinks. In the two areas combined, sockeyes account for the majority of the volume and value of the salmon fishery. In 2019, sockeyes made up 55 percent of the landed weight of the salmon harvest, and 82 percent of the value. The 10-year average value of salmon harvests from both areas is \$35.5 million.⁴⁴

Cook Inlet Salmon Catch by Weight

Gross weight of commercial salmon harvests in Upper and Lower Cook Inlet, 1975-2019.

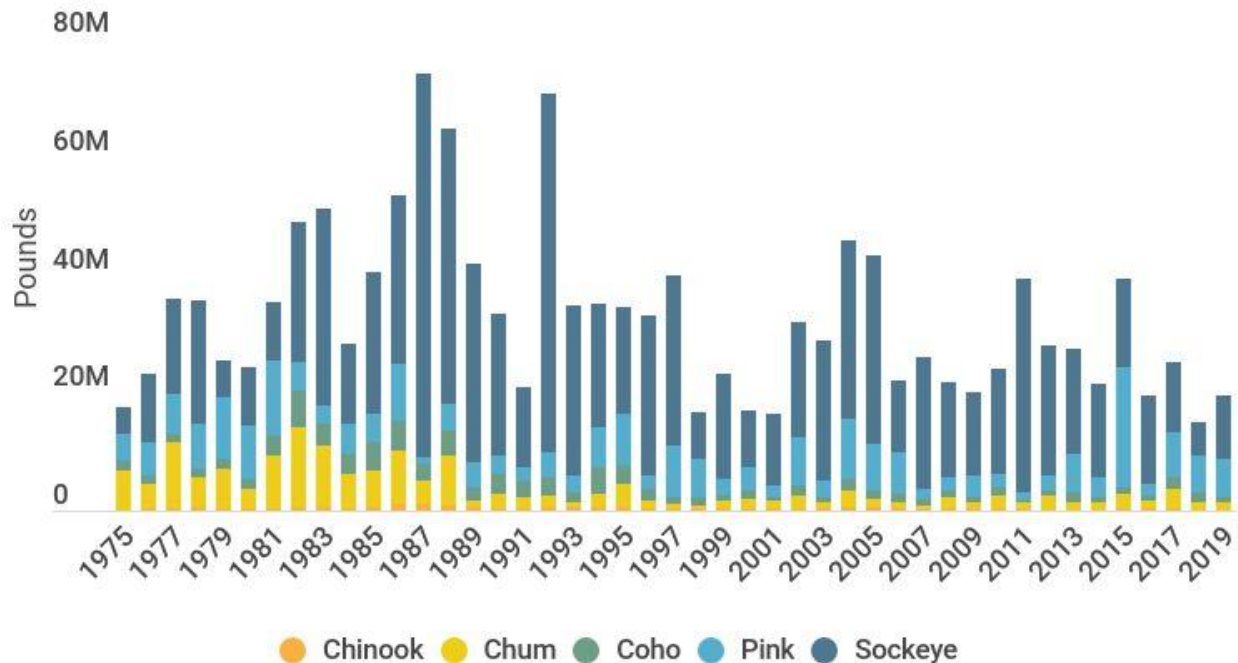


Figure 25: Gross weight of commercial salmon harvests in Upper and Lower Cook Inlet. Source: ADF&G, 1975-2019.

Salmon are not the only economically important fish on the Kenai Peninsula. Seward and Homer are among the top ports for landings of Individual Fishing Quota (IFQ) species, halibut and sablefish. In 2019 the two ports landed roughly \$40 million in ex-vessel value between the two species.⁴⁵ Other commercial species include rockfish and Pacific cod.

Health Care

Key facts:

- Health care and social assistance jobs made up 13 percent of the total jobs in the Borough in 2019.
- Employment in the sector has declined since 2018.
- Major hospitals are located in Soldotna, Homer, and Seward.
- Gross sales in the health care industry have fallen since 2015.

The health care industry on the Kenai Peninsula is a critical component of quality of life. The regions three hospitals in Seward, Homer, and Soldotna provide critical medical services to residents. In addition, the network of health clinics assist in filling in gaps in health care needs in remote and rural areas of the borough. However, access to specialty health care services can be limited in the region, and frequently it can be more affordable to seek care outside of the region, in Anchorage or out-of-state.

Borough sales tax information shows that gross taxable sales in the health care and social assistance industry reached a peak 2015. Sales on health care have declined since 2015, reaching \$24.6 million in 2020.⁴⁶ The dip in health care spending in 2020 is likely a result of decreased consumer spending related to the COVID-19 pandemic.

Healthcare Industry Expenditure in the Borough

Boroughwide healthcare and social assistance industry taxable sales, 2011-2020.

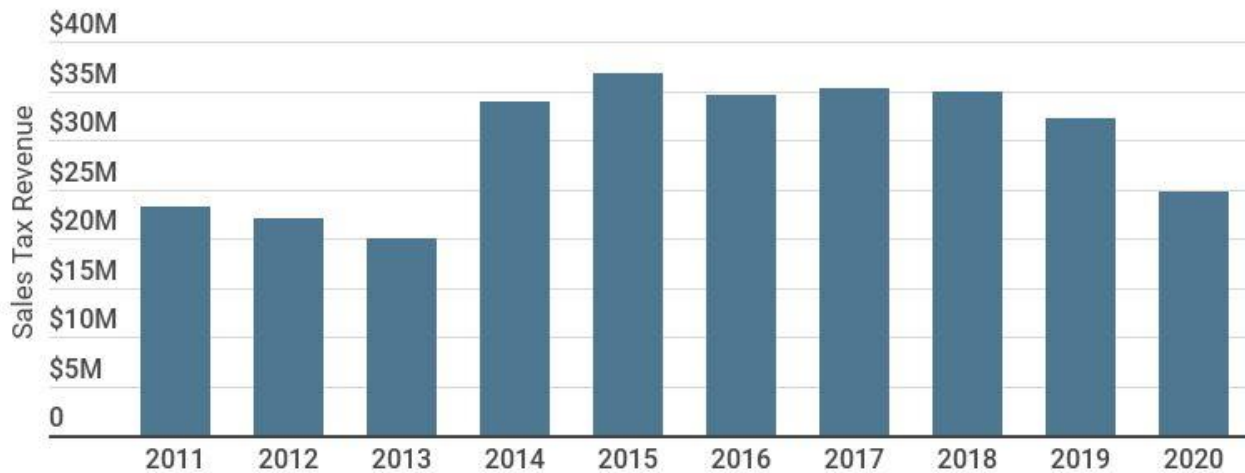


Figure 26: Boroughwide health care and social assistance industry taxable sales.
Source: KPB, 2011-2020.

The health care industry is also one of the largest employers in the borough. The health care and social services sector employed 3,202 individuals, representing 13 percent of the total jobs on the Kenai Peninsula in 2019. Total employment in the health care and social services sector in the region has leveled off and declined over the last decade. Most of the decline in employment in the industry can be attributed to job loss in the social assistance sub-sector, which lost three percent of its total jobs between 2010 and 2019.⁴⁷

Health Care Industry Employment in the Borough

Average annual employment in the health care and social assistance industry, 2010-2019.

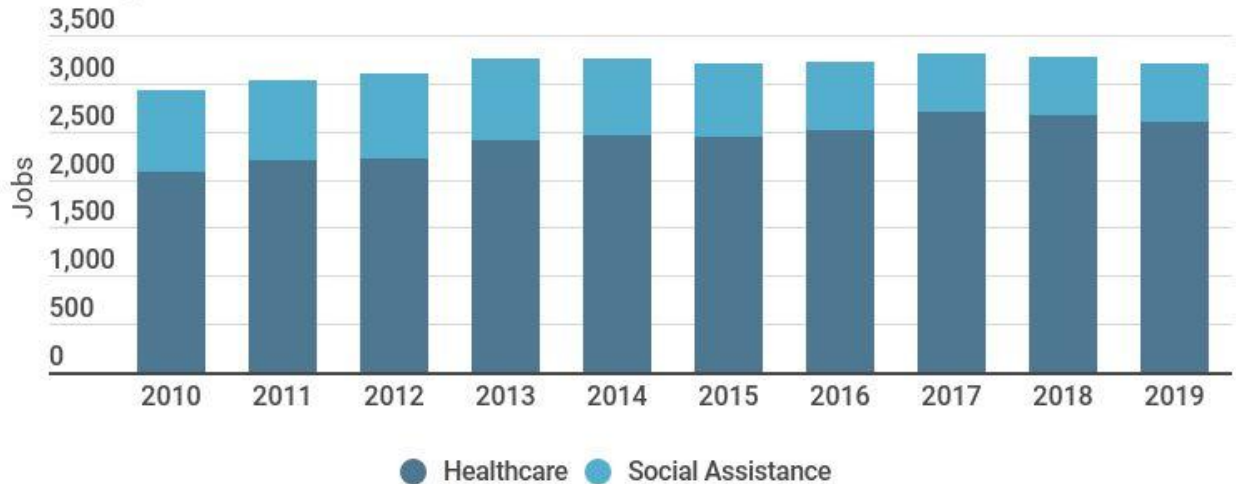


Figure 27: Average annual employment in the health care and social assistance industry. Source: QCEW, 2010-2019.

Monthly employment information for the industry shows job loss since April 2018. The largest job losses were in April 2020, coinciding with the economic impacts of the COVID-19 pandemic.⁴⁸

With projected increases in the borough’s population of individuals over the age of 65,⁴⁹ the health care industry is expected to play an increasingly important role in the regions job market. As a quality-of-life indicator, growing the health care industry could stem out-migration of individuals over 65.

Oil and Gas

Key facts:

- Produced 12,000 barrels/day of oil and 215,000 MCF of gas in 2020.
- 2,200 direct jobs and 4,600 total jobs in 2018.
- Total payroll (with indirect/induced jobs) of \$405 million.

- Roughly 1 in 5 jobs in the borough tied to the industry.

Oil and gas production in Cook Inlet began in 1958, a year prior to Alaska statehood and a full decade before the discovery of oil at Prudhoe Bay. Although crude production peaked in 1970, and natural gas in 1990, the basin still plays a critical role in the borough (and state) economy. Despite the economic disruptions resulting from the COVID-19 pandemic, Cook Inlet operators produced about 12,000 barrels of per day in 2020, along with 215,000 MCF of natural gas—similar output volumes to 2019.⁵⁰ Most of the basin’s units fall within the boundaries of KPB.

The importance of the Kenai Peninsula’s oil and gas industry is threefold. First, the industry is a major source of employment within the Borough. According to one report, the industry created a total of more than 2,200 direct jobs in production and support services, and nearly 2,400 indirect and induced jobs through multiplier effects for a total of 4,600 jobs—about one-fifth of all employment on the Peninsula, and almost a quarter of the total payroll.⁵¹ Second, the industry contributes to local government revenues. In 2018, oil and gas companies paid over \$14 million in Borough property taxes and almost \$200,000 to the City of Kenai.⁵²

Cook Inlet Well Locations

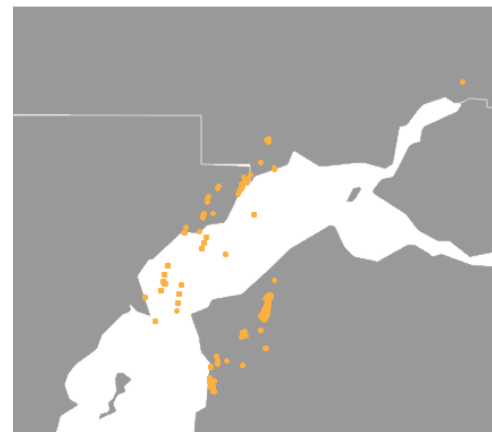


Figure 28: Cook Inlet well locations.
Source: AOGCC.



Cook Inlet Oil and Natural Gas Production, 1958-2020

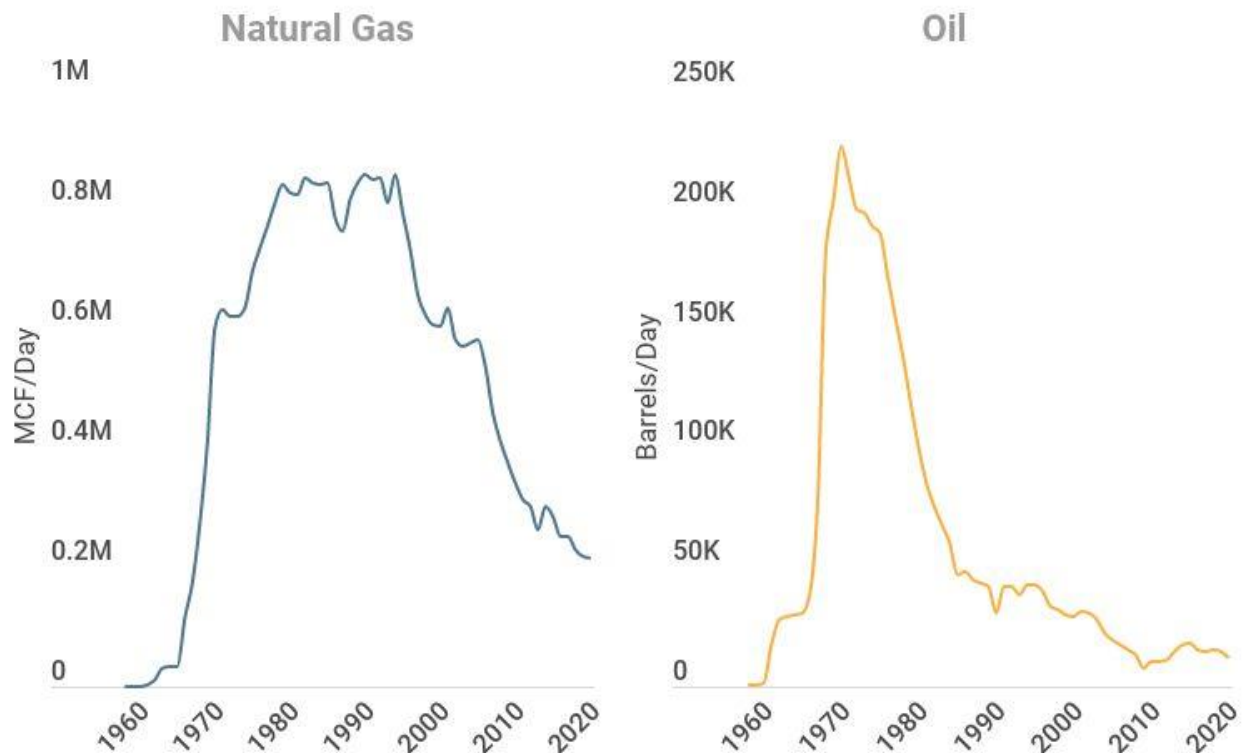


Figure 29: Cook Inlet Oil and Natural Gas Production.
Source: AOGCC, 1958-2020.

Third, Cook Inlet natural gas is a vitally important energy source for Southcentral and Interior Alaska. In 2015, utilities serving the Kenai Peninsula, Anchorage, and Mat-Su Borough generated 83 percent of their electricity using natural gas from the basin. The natural gas is also a primary heat source for commercial and residential customers in Southcentral Alaska, and a small number of those in the Fairbanks area as well.⁵³

Starting in 1969, a liquified natural gas (LNG) plant in Kenai exported gas to East Asia. Although the plant still exists, it has not exported shipments since 2015. It is now owned by Marathon Petroleum, who received regulatory approval to convert the facility into an LNG import facility in 2020.⁵⁴ A urea plant owned by Agrium operated until 2007, processing natural gas into fertilizer for export. Reopening the plant, which employed 400 people, remains a possibility depending on the supply and price of gas.⁵⁵ A refinery in Kenai, also owned by Marathon, processes Cook Inlet crude oil into gasoline, asphalt, and other products for in-state use. It employs 230 individuals.⁵⁶

As an aging basin, the future supply of oil and gas from Cook Inlet will depend on continued exploration activities and market dynamics. A 2018 report by the Alaska Division of Oil and Gas concluded that Cook Inlet can continue to meet in-state demand until 2030 or later. Absent further discoveries, production will continue but could require imported (or North Slope) LNG to make up the shortfall.⁵⁷ This would most likely mean higher energy prices for thousands of Alaskan households.

However, some operators are still channeling investment into Cook Inlet oil and gas, suggesting that production will continue well into the future. Houston-based Hilcorp, now the basin’s largest operator, continues to purchase leases as they become available, most recently in 2020.⁵⁸ The company continues to explore for more oil and gas, with two exploration wells near Anchor Point planned for 2021.⁵⁹ In 2020, Hilcorp produced 88 percent of the natural gas and 87 percent of the oil to come from the Cook Inlet basin during the year.⁶⁰

Tourism and Recreation

Key Facts:

- An estimated 868,000 individuals traveled to the Kenai Peninsula in 2016.
- 36 percent of visitors to the Kenai Peninsula travel by cruise ship.
- Sport fishing represents a major draw both for visitors from in-state and out-of-state.

Visitors and locals alike refer to the Kenai Peninsula as “Alaska’s playground.” The borough features a wide range of attractions and activities that Alaska is known for, like hiking, camping, wildlife and scenery viewing, and world-class sportfishing. Out-of-state visitors arrive mostly by cruise ship or air (via Anchorage). In 2016 (the last year with complete estimates) about 868,000 visitors traveled to various locations on the Kenai Peninsula.⁶¹



Figure 30: A cruise ship docked in Seward in 2019. Source: Wikimedia Commons

In the years prior to the pandemic, Alaska’s busy summer season would see nearly 2 million visitors. Typically, the majority of these visitors would arrive by cruise ship. In 2017 for example, 57 percent of the state’s 1.9 million tourists came this way, compared to 39 percent by air and 4 percent by highway

or ferry.⁶² Due to the high volume of cruise ships visiting Southeast Alaska, that region of the state is the most visited.

On the Kenai Peninsula, however, visitors arriving in Alaska by air tend to make up the majority. In 2016, 58 percent were air travelers, typically landing in Anchorage and driving or taking a train to the Peninsula, followed by 36 percent cruise ships, and 6 percent highway or ferry.⁶³ Seward is by far the largest recipient of cruise visitors, with 237,900 in 2019. Homer also receives cruise ships, with 14,800 cruise passengers that same year.⁶⁴

Seward is the most visited community on the Peninsula, with over 440,000 total visitors in 2016, It was followed by Homer with 166,000 and Kenai/Soldotna with 127,000.⁶⁵

Of all the major industries on the Kenai Peninsula, tourism has suffered the most as a result of the COVID-19 pandemic. No major cruise ships visited the state in 2020 and none were planned for 2021 (as of this writing). Air arrivals to the state were also down significantly in 2020, though increasing gradually in 2021. This contributed heavily to sharply declining revenues for KPB sales tax-collecting businesses, a reliable measure of consumer spending. Between 2019 and 2020, spending in four visitor-related business lines saw declines, including:

- Arts and Entertainment—41 percent;
- Water and Land Guiding—54 percent;
- Hotels, Motels, and Bed and Breakfasts—50 percent; and,
- Bars and Restaurants—21 percent.⁶⁶

Employment data in visitor-related industries tells a similar story. Leisure and hospitality, which includes lodging, restaurants, and bars, employed 34 percent fewer workers in July 2020 than July 2019.⁶⁷ Some of this is the result of pandemic-related drops in spending by locals, but a large share is due to diminished tourism.

COVID-19 Takes a Toll

Kenai Peninsula Borough gross sales in visitor related business lines, 2011-2020 in real 2019 dollars

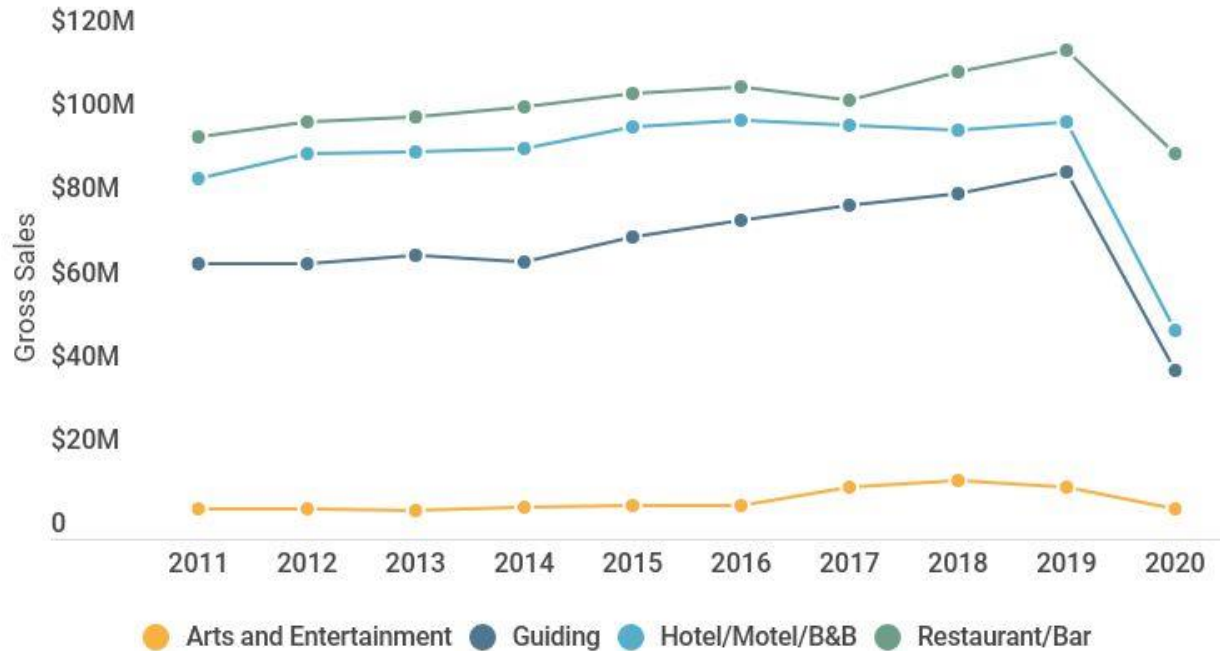


Figure 31: KPB gross sales in visitor related business lines, in real 2019 dollars. Source: KPB, 2011-2020.

One major driver of visitation to the Kenai Peninsula, both among non-Alaskan visitors and state residents, is sportfishing. The Kenai and Kasilof Rivers, as well as the saltwater environments of Cook Inlet and Resurrection Bay, offer anglers unparalleled access to salmon, rainbow trout, lingcod, rockfish, and halibut. Anglers spend money on food, fuel, lodging, guides, licenses, and other items, creating significant economic impacts as expenditures circulate. The exact number of jobs tied to sportfishing on the Kenai Peninsula is not known, but likely to number several thousand. A 2019 report by UA CED estimated conservatively that sportfishing creates nearly 7,000 jobs statewide, though a 2007 report using a different methodology estimated almost 16,000 jobs.⁶⁸

Emerging Sector: Agriculture

Key Facts:

- 83 percent of producing farms are smaller than 50 acres.
- Farm revenues grew by 65 percent between 2012 and 2017.
- Produce, syrup, honey, animal products, hay, peonies, and more are all produced in the region.

The Kenai Peninsula has a history of farming and ranching that, while short compared to many areas of the U.S., played an important role in the development of the region. Settlers and homesteaders began settling in the area in the early 1900s. As the military built out infrastructure in the 1940s and 50s, the region’s population began to grow and agriculture grew to accommodate the growing population. Crop

production continued at a larger scale until the 1990s when the first large scale grocery stores moved into the region.⁶⁹

In more recent years, agriculture has boomed on the Kenai Peninsula. A total of 31,508 acres were farmed on the peninsula in 2017, representing 8 percent growth since 2012. Of the 260 producing farms and other agricultural operations on the peninsula, 215 (or 83 percent) were smaller than 50 acres.⁷⁰

Agriculture Production on the Kenai Peninsula

Boroughwide agriculture production acreage, 2012 and 2017.

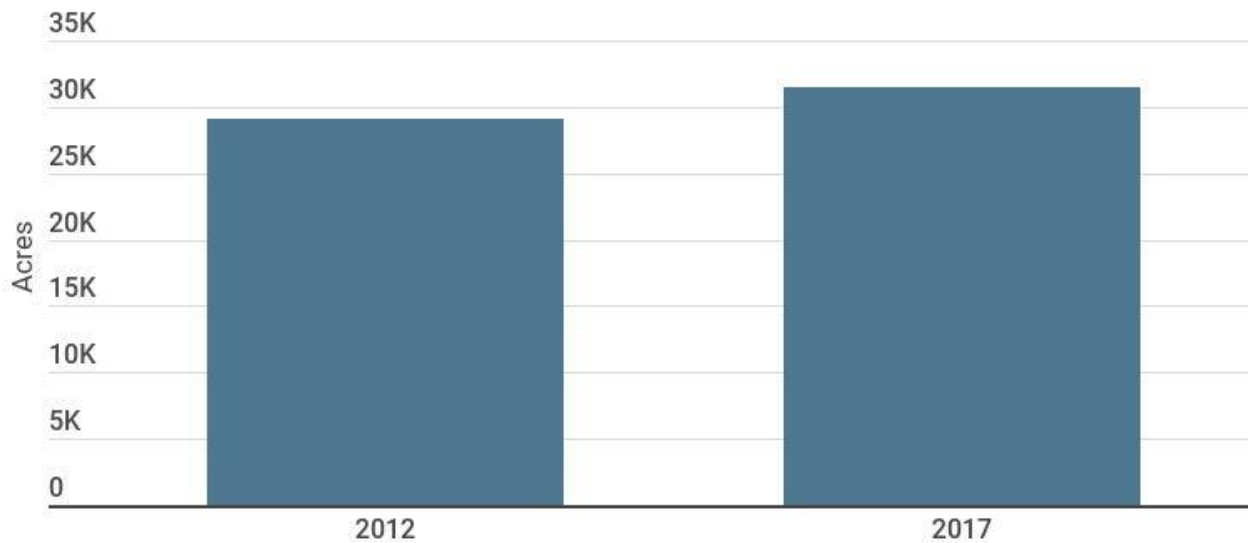


Figure 32: Boroughwide agriculture production acreage.
Source: USDA, 2012 and 2017.

Revenues from agriculture production on the peninsula have grown. In 2017, crop production on the Kenai Peninsula resulted in \$2,711,000 in revenues, growing 65 percent between 2012 and 2017.

Agriculture Revenues on the Kenai Peninsula

Boroughwide crop production revenues, 2012 and 2017.

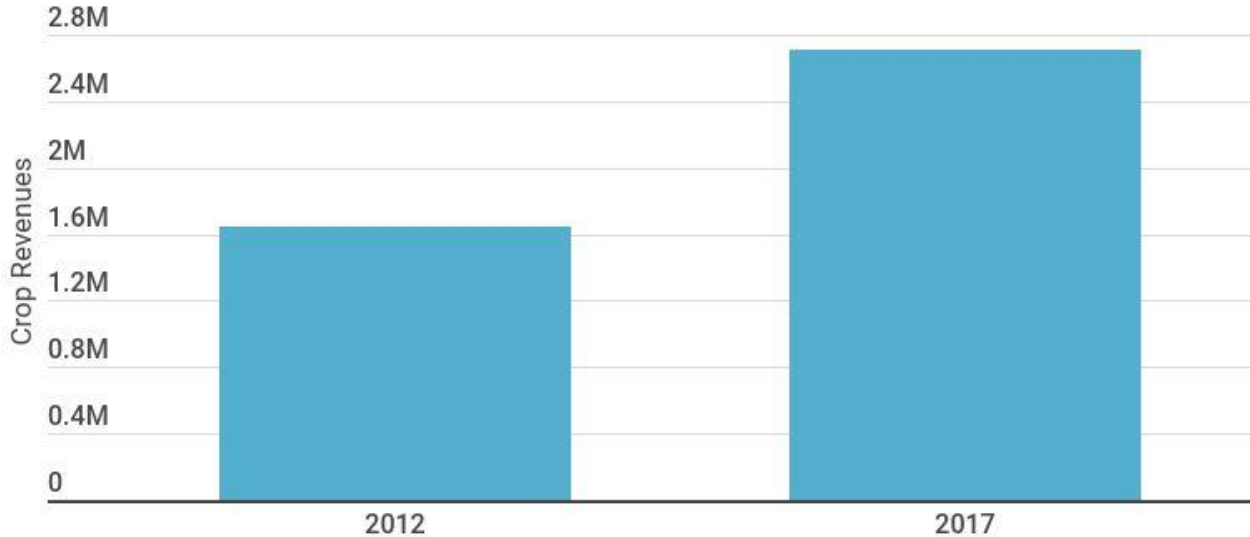


Figure 33: Boroughwide crop production revenues. Source: USDA, 2012 and 2017.

In terms of nationwide agriculture production, the agriculture production on the Kenai Peninsula is extremely small-scale with the majority of farms smaller than 50 acres. The regions agriculture market produces produce, syrup, honey, animal products, hay, and peonies.⁷¹ Most of the agriculture production is consumed locally or in Alaska; however, peony production in the region serves a world-wide market.

The agriculture industry on the Kenai Peninsula is expected to continue growing. However, future growth in the industry is expected to be limited by land availability. In spring 2019, KPB Land Management began looking into managing designated borough agriculture land for long term production.

Emerging Sector: Ocean Economy

Key Facts:

- 112 thousand pounds of kelp were sold in 2019 and 2.1 million oysters sold in 2020 in AK
- 16 active operating aquatic farming permits on the Kenai Peninsula
- Expansion of the Seward Marine Industrial Center captures and retains economic value

With two of Alaska’s major ports, Seward and Homer, located in the borough, economic activities tied to the ocean play an important role in the region’s economy. Many traditional sectors of the Kenai Peninsula economy are tied to the ocean—oil and gas extraction, fisheries, and tourism are a couple of examples. However, a handful of sectors tied to marine activities are the subject of growing interest, including: marine services, mariculture, and marine technology.

Boat and ship building and repair is not a new industry in Alaska. The state is home to a rich history of boat building craft, but over time, Alaska has lost economic activity to Seattle and its large marine services sector.⁷² However, expansion of the Seward Marine Industrial Center and the JAG Alaska Seward Shipyard has enabled the borough to retain more of that economic activity. JAG Alaska provides dry docking, boat and ship building and repair, and lift services.⁷³

Mariculture, another sector of the ocean economy that is growing rapidly on the Kenai Peninsula, is receiving a growing amount of attention at the state and local level. Mariculture, or aquatic farming, focuses on the cultivation of shellfish and kelp.

While kelp production in Alaska is growing, with 112 thousand pounds sold in Alaska in 2019,⁷⁴ oyster production has been the primary focus for mariculture on the Kenai Peninsula. Oyster farming has grown rapidly in Alaska over the last decade, resulting in a total of 2,065,292 oysters being sold statewide in 2020.⁷⁵

There are 16 active permitted aquatic farming operations in KPB, including hatcheries and nurseries. These operations are primarily located in Bear Cove, Halibut Cove, Peterson Cove, and Jakolof Bay and produce kelp, mussels, scallops, sea urchin, and oysters.⁷⁶

Aquatic Farming on the Kenai Peninsula

Active aquatic farming operations on the Kenai Peninsula, 2020.

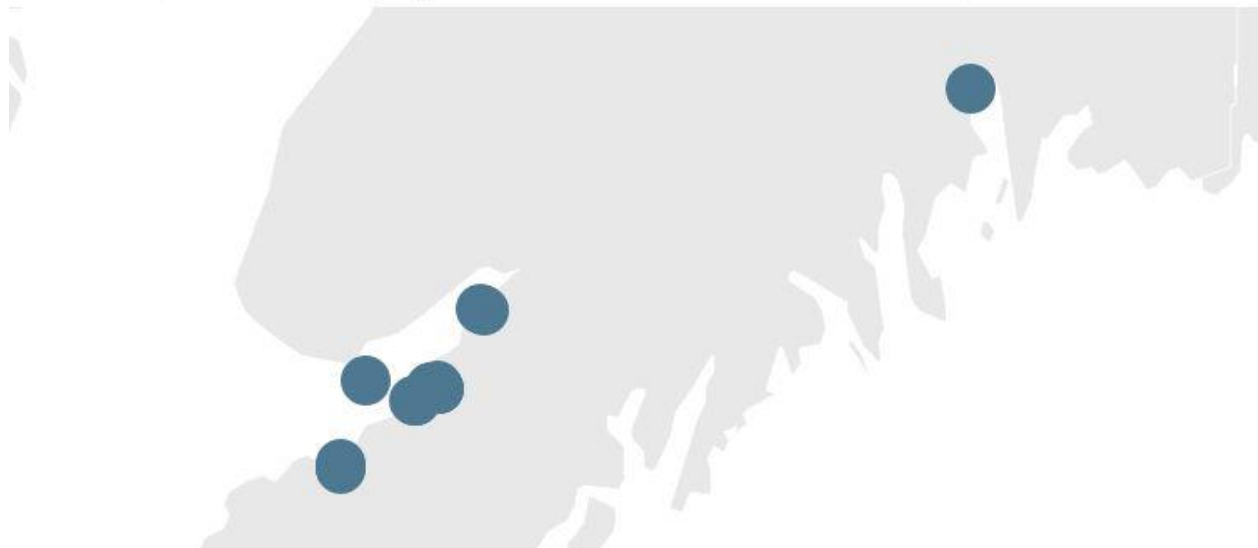


Figure 34: Active aquatic farming operation on the Kenai Peninsula.
Source: ADF&G, 2021.

Seward serves as a center for marine research and technology. The UAF College of Fisheries and Ocean Sciences Seward Marine Center, collocated with the Alaska SeaLife Center and the Alutiiq Pride Shellfish Hatchery is part of a center for marine research in Alaska. The R/V *Sikuliaq* and R/V *Nanuq* both homeport in Seward. The center enables research in the fields of fisheries, marine biology, oceanography, ocean acidification, and marine technology.⁷⁷

Ocean based research on the Kenai Peninsula attracts researchers and funding from around the world. Research spending generates local economic activity. Spending by researchers support local businesses and the research performed benefit local communities.⁷⁸



*Figure 35: Oyster farming in Kachemak Bay.
Source: Wikimedia Commons*

Seward is home to the Alutiiq Pride Marine Institute operated by the Chugach Regional Resources Commission. APMI produces shellfish and kelp seed for aquatic farmers, enhances local beaches with four types of clams, conducts research on a multitude of other marine species, operates a harmful algae bloom detection lab, ocean acidification research lab. APMI has 10 full time employees.



*Figure 36.1: APMI Research Facility.
Source: Alutiiq Pride Marine Institute*

III. SWOT Analysis

A SWOT analysis (which stands for strengths, weaknesses, opportunities, and threats) is a framework that allows regions to evaluate the position of their local economies. Factors affecting the region may be beneficial or harmful, and internal or external. Strengths are positive elements that are internal to the region, while weaknesses are negative internal factors. Opportunities and threats are external drivers like the state and national economy that influence the region. This section provides an overview SWOT of the Kenai Peninsula economy, its industries and business climate, infrastructure, and human capital.

Kenai Peninsula Economy Overview SWOT

	Beneficial	Harmful
Internal	<p style="text-align: center;">Strengths</p> <ul style="list-style-type: none"> • Education • Government, Business, and Non-Profit Resources • Housing • Crime Rates • Transportation and Accessibility • Access to Affordable Energy • Natural Resources • Health Care • Leadership 	<p style="text-align: center;">Weaknesses</p> <ul style="list-style-type: none"> • Population Decline • Dependence on government revenues for essential services • Declining School Enrollment • Cost and Availability of Goods and Services • Instability in Tourism Sector • Changes to Fishery Policies • Oil and Gas Production • Cost of Energy • Housing Availability • Broadband and Wireless Communications • Public Transportation • Aging Infrastructure
External	<p style="text-align: center;">Opportunities</p> <ul style="list-style-type: none"> • Employment Opportunities • Access to Health Care • New Industry Growth • Coast Guard Expansion • Land and Housing Development • Quality of Life • Access to Education • Transportation • Government Accessibility • Economic Resiliency Planning 	<p style="text-align: center;">Threats</p> <ul style="list-style-type: none"> • Oil and Gas Instability • Changes to Seafood Harvests • Disruptions to Marine and Air Travel • State Government Budget • Early Childhood and Pre-Kindergarten Education • COVID-19 Pandemic Impacts • High Unemployment • Out-Migration

Figure 37: Overview SWOT table

Industries and Business Climate

	Beneficial	Harmful
Internal	<p style="text-align: center;">Strengths</p> <ul style="list-style-type: none"> • Diverse industry mix: <ul style="list-style-type: none"> ○ Seafood ○ Tourism ○ Oil and gas ○ Health care • Mature industries provide stable employment • Natural resource abundance: ocean, minerals, hydrocarbons, land 	<p style="text-align: center;">Weaknesses</p> <ul style="list-style-type: none"> • High costs for natural resource development • High operating costs for businesses • Small trained workforce • Dependence on non-resident employment
External	<p style="text-align: center;">Opportunities</p> <ul style="list-style-type: none"> • Emerging industries have growth potential: <ul style="list-style-type: none"> ○ Mariculture ○ Marine services ○ Agriculture • Value-added processing for natural resources • Investment in new oil and gas development 	<p style="text-align: center;">Threats</p> <ul style="list-style-type: none"> • Volatility of commodity prices • Regulatory barriers to development

Figure 38: Industries and business climate SWOT table.

Strengths

Mature, diverse base industries. While some regions of Alaska depend heavily on one industry—oil and gas for the North Slope, commercial salmon for Bristol Bay—the Kenai Peninsula has a relatively diverse industry mix. The region has three primary ‘base’ industries, which attract money from outside the Borough: Seafood, oil and gas, and recreation and tourism. These three sectors provide the underpinnings for a variety of other industries like health care, retail, construction, nonprofits, and others.

Fisheries and seafood. The Kenai Peninsula’s freshwater and marine environments support productive commercial and sport fisheries. In 2019, the ports of Homer, Kenai, and Seward landed almost 73 million pounds of seafood, with an ex-vessel value of \$72 million. Seward ranked 22nd in the nation in terms of commercial landings by weight, with Kenai coming in at 28th.⁷⁹ In 2018, nearly 1,600 Peninsula residents held commercial fisheries permits.⁸⁰ The major commercially-targeted species are sockeye salmon, pink salmon, halibut, and sablefish.

Oil and gas. The Cook Inlet Basin produces oil and gas, most of which is refined, stored, and consumed in-region. In 2019, there were over 1,200 jobs on the Kenai Peninsula in oil and gas, utilities, and refining.⁸¹ The basin produced 12,000 barrels per day of oil and 215,000 MCF of gas in 2020. Cook Inlet natural gas meets the heating needs of most Southcentral Alaskans, and provides power to all of Alaska’s Railbelt utilities.

Tourism and recreation. Tourists are attracted to the Peninsula’s wildlife, sport fishing, and scenery. Ports like Seward and Homer receive cruise ships during the summer, but the region also attracts independent travelers. The visitor industry suffered a sharp drop in visitation in 2020 and 2021 due to the COVID-19 pandemic. In 2016, over 700,000 tourists from outside of Alaska visited the region, including about 200,000 cruise ship passengers.⁸² One stabilizing feature of this sector is the large number of in-state visitors who come to the Peninsula to recreate. During the COVID-19 pandemic, in-state visitors (predominantly from Southcentral Alaska) continued to visit the region and spend money in local businesses.

Health care. Health care has been a growth sector for several years, creating jobs at hospitals and clinics while meeting the local population’s needs. Hospitals in Seward, Soldotna, and Homer minimize the need to leave the region to receive care. The Peninsula’s health care sector employed 3,202 individuals in 2019, or about five percent of the population.⁸³ A thriving health care sector enables retirees and families to settle in the area.

Weaknesses

Regulatory barriers/development costs. Responsible mineral, oil, and gas development all require extensive permitting processes and regulatory hurdles that raise development costs that are already high. This inhibits new investment to a degree, especially in Cook Inlet oil and gas development along with mining prospects on the west side of the inlet.

High operating costs. Although some parts of Alaska have much higher costs for real estate, energy, labor, and freight, operating costs on the Peninsula are still generally much higher than in the Lower 48.

Workforce limitations. Despite the presence of University of Alaska satellite campuses and AVTEC, employers site limited workforce availability as a major obstacle to business expansion.⁸⁴

Opportunities

Emerging sectors. Outside of the mature base industries, the Kenai Peninsula hosts a number of emerging sectors, or small industries with high growth potential. These include mariculture, marine services, and agriculture.

Mariculture. Oyster and shellfish farms already exist in Kachemak and Resurrection bays, and expansion potential is high. Additional shellfish species like geoducks could be farmed, greatly increasing the value of output. Experimental kelp farming is also taking place in Alaska waters, and offers possibilities to marine communities on the Peninsula.

Marine services. Seward and Homer both host vessel fabrication and repair facilities and infrastructure. With a large (and aging) in-state fleet, research indicates that there is an opportunity to capture more of the repair and service market from Washington State. Commercial and recreational boats made in Homer are sold both in-state and in the Lower 48. SMIC features the largest marine lift in the state and several private maintenance/repair providers.

Agriculture. According to the USDA, the Kenai Peninsula is the fastest-growing agricultural region in the state.⁸⁵ There are at least five farmers markets on the Peninsula, found in Soldotna, Anchor Point, and Homer. Agricultural products include potatoes, leafy greens, beef, pork, and peonies.

New visitor markets. While there is no shortage of visitors most years (COVID aside), significant potential exists to cultivate and expand new tourism segments. These niches include winter and shoulder-season visitation, ecotourism, and cultural tourism. Expanding these segments could grow and broaden visitor spending to create more business opportunities, jobs, and local government revenue.

Liquefied Natural Gas. Nikiski is the most likely place for an export-focused LNG plant if a gas line is constructed between the North Slope and Southcentral Alaska.

Threats

COVID-19 pandemic. As with the rest of the world, the global pandemic has been a sharply negative shock to the economy of the Kenai Peninsula. It caused businesses to close, both temporarily and permanently, with a large majority citing a strongly negative effect. Job losses related to the pandemic have been especially pronounced in tourism, retail, construction, and health care.

Commodity prices. A significant share of the Kenai Peninsula economy rests the export of commodities to region's outside of the borough—chiefly, oil, gas, and seafood. The prices for all of these valuable products depend on global market forces well outside of local control. This contributes to volatility and price cycles with a heavy influence on the local economy in terms of business success and employment.

State fiscal uncertainty. Many business owners cite the state fiscal situation—a lack of resolution on spending, revenues, and Permanent Fund Dividends—as an obstacle to growth and new investment.⁸⁶ Potential cuts to state services could threaten public safety and education in the region, and new state taxes could dampen business success and investment.

Infrastructure

	Beneficial	Harmful
Internal	<p style="text-align: center;">Strengths</p> <ul style="list-style-type: none"> • Affordable Housing • Transportation and Accessibility <ul style="list-style-type: none"> ○ Highway access to most communities ○ Developed ports and harbors ○ Airports • Access to Affordable Energy 	<p style="text-align: center;">Weaknesses</p> <ul style="list-style-type: none"> • Aging Infrastructure • Public transportation • Housing availability
External	<p style="text-align: center;">Opportunities</p> <ul style="list-style-type: none"> • Coast Guard Expansion? • Land and Housing Development • Transportation 	<p style="text-align: center;">Threats</p> <ul style="list-style-type: none"> • Disruptions to Marine and Air Travel • State government budgets

Figure 39: Infrastructure SWOT table.

Strengths

Affordable housing. On average KPB housing costs are among the lowest in Alaska. Average rent price in the borough in 2020 was lower than both Anchorage and the Matanuska-Susitna Borough. Average sales prices were also lower than comparable regions of the state.⁸⁷

Highway access. KPB hosts over 645 miles of borough-maintained roads in the region and the Seward and Sterling Highways connecting the region, from Seward and Homer on each end, to the rest of the Alaska road system. The road system plays a critical role in keeping the cost of goods in the region low and help visitors access many of the communities in region.

Ports and harbors. Port and harbor infrastructure play a critical role in facilitating economic activity in the region. The City of Homer Port and Harbor and Seward Harbor are two critical resources. In addition, the network of boat launches dotted across the rivers, lakes, and coastline of KPB provide access points to recreation opportunities and subsistence resources.

Airports. With at least 23 FAA registered airstrips in KPB, airports and airstrips provide access to both the urban and remote areas of the borough.⁸⁸ Airports in Kenai and Homer act as transportation hubs in the region, enabling passenger transportation through Ravn Alaska. In the remote communities of KPB only accessible by air and boat, airstrip infrastructure enables the access to communities, delivery of goods, and medical transportation.

Energy. The energy infrastructure of Cook Inlet, from delivering fuel to generating electricity and transmitting heat and power to businesses and residents, make up a network of critical infrastructure for the region. One of the key pieces of this infrastructure are the pipelines delivering Cook Inlet natural gas to utilities and storage facilities, supporting the electric and heat utilities across urban Alaska.

Weaknesses

Housing availability. While housing costs are lower on average across the borough, housing availability—specifically seasonal housing—is seen as a challenge in the borough.⁸⁹ Communities that see large seasonal fluctuations in workforce associated, like Seward, experience more dramatic housing gaps. With an aging population, senior housing is expected to become an increasingly prominent issue, with the ratio of population of senior citizens to senior facility beds expected to increase from 22 to 39.

Aging infrastructure. Transportation infrastructure is critical to keeping down the cost of goods and services and act as an enabler for tourism, recreation, and subsistence harvesting. Road conditions are a concern borough wide.⁹⁰ In addition, aging pipeline infrastructure, with pipeline leaks limiting the supply of natural gas from the Cook Inlet puts the region’s energy systems at risk.⁹¹

Public transportation. Public transportation options are limited across the borough. The temporary closure of Ravn Airlines in 2020 limiting passenger air transportation uncovered weaknesses in the KPB public transportation system. Public transportation linkages between satellite communities and more core business centers, such as the route between Anchor Point and Homer, have been cited as specific needs.

Opportunities

Expanded broadband access. Access, quality, and cost of broadbands have all been cited as challenges across the borough. However, expanded investment broadband infrastructure over the last 10 years have improved access and quality in some areas. Further investment in broadband and other communication infrastructure represents an opportunity to improve business and quality of life. KPB allocated \$1.2 to \$2 million in CARES Act funding in late 2020 to construct 4 new communications towers across the borough to expand broadband access to rural areas.⁹²

Mariculture and agriculture development. Over the last decade, the number of permitted mariculture operations and acres of land developed for agriculture have grown. Peonies, oysters, and kelp are all growing markets in the region.

Port Infrastructure expansion. Port infrastructure projects in Seward and Homer will provide opportunities for increased industrial access and business development. The Seward Marine Terminal Expansion Project is expected to replace aging infrastructure and increase access and capacity at the Seward Passenger Terminal. In Homer, the need for a Large Vessel Harbor has been under discussion.⁹³

Threats

Disruptions to marine travel. Budget reductions to the Alaska Marine Highway System have threatened ferry service in the region. Between fiscal year 2016 and 2020, system wide revenues were down by nearly 40 percent.⁹⁴ Homer and Seldovia are the only two communities in the region with ferry service, providing critical passenger connections and transporting goods between the Kenai Peninsula and southwest and southeast Alaska.

Disruptions to air travel. The bankruptcy and temporary closure of Ravn Air in 2020 limited passenger air service to the Kenai Peninsula. Kenai and Homer are both served by Ravn Air. Limited service threatens the region by reducing access to the region to marine and ground transportation.⁹⁵ Other

small air service providers do serve the region; however, smaller flight operators are higher cost and lower capacity.

Limited public funding. Continued State of Alaska budget issues threaten the borough economy from several angles. Reduced State of Alaska Department of Transportation budgets limited winter road maintenance on the Seward Highway, the main road artery to the majority of the Kenai Peninsula.⁹⁶ Local government pass-through revenues from the State of Alaska to city and borough governments are decreasing, leaving local government to fill in gaps in funding. In addition, the Division of Motor Vehicles office in Homer could close because of proposed cuts in the fiscal year 2022 budget.⁹⁷



Figure 40: Kenai Municipal Airport.
Source: Wikimedia Commons.

Human Capital

	Beneficial	Harmful
Internal	<p style="text-align: center;">Strengths</p> <ul style="list-style-type: none"> • Education <ul style="list-style-type: none"> ○ K-12 Education ○ Higher Ed and Vocational Education • Government, Business, and Non-Profit Ecosystem <ul style="list-style-type: none"> ○ Partnerships with Chambers of Commerce and Industry/Trade Groups • KPEDD Workforce Initiatives 	<p style="text-align: center;">Weaknesses</p> <ul style="list-style-type: none"> • Limited Labor Pool • Declining K-12 Enrollment
External	<p style="text-align: center;">Opportunities</p> <ul style="list-style-type: none"> • Expansion of Trades • Access to Health Care • Quality of Life <ul style="list-style-type: none"> ○ Expansion in Recreation Opportunities 	<p style="text-align: center;">Threats</p> <ul style="list-style-type: none"> • Early Childhood and Pre-K Education Access • High Unemployment • Out-Migration • Decline in Wages

Figure 41: Human capital SWOT table.

Strengths

Quality of life. Community, proximity to recreation resources, and natural beauty are among the top reasons residents live in the region.⁹⁸ These key drivers for quality of life in the region attract and retain residents and drive businesses to locate in the region.

K-12 education. The Kenai Peninsula School District operates 44 schools in the region, enrolling 7,902 students in the 2020-2021 school year. In addition, a handful of private schools and statewide correspondence schools enroll students in the region. Graduation rates in the Kenai Peninsula School District are among the top 25 percent in the state, at 85.6 percent in 2020. School quality ranks among the best aspects of living in the borough.⁹⁹

Post-secondary and vocational education. UAA Kenai Peninsula College campus and the Alaska Vocational and Technical Education Center (AVTEC) are important resources for continuing education in the region. The UAA Kenai Peninsula Campus enrolled 1,736 students in fall 2020 and has four campuses in Soldotna, Seward, Homer, and Anchorage. AVTEC, in Seward, had 631 students enrolled in fall 2019. AVTEC attracts students from across Alaska to Seward for its vocational education programs. Other vocational training programs across the borough facilitate trade education.

KPEDD workforce initiatives. KPEDD actively works on workforce development in KPB. KPEDD recently released a workforce website, connecting job seekers with apprenticeships and training opportunities, resources for job applications, scholarships, and other resources. KPEDD is also working with Tyonek to connect residents with training opportunities so they are ready and capable of filling local jobs in the oil and gas industry.

Organizational partnerships. Strong partnerships between KPEDD, local and state government, chambers of commerce, and trade/industry organizations are an asset for the region. Strong partnerships help improve projects and outcomes for residents and businesses. Connections between the organizations providing essential services across the borough helps connect residents and businesses with the services they need.

Weaknesses

Limited labor pool. With a growing senior citizen population and a shrinking population of working-aged individuals, the labor pool on the Kenai Peninsula is increasingly limited. Access to qualified labor and retaining trained workers are both challenges experienced by businesses in the region.

Declining K-12 enrollment. Despite a growing population of school-aged individuals, student enrollment in the Kenai Peninsula School District has declined over the last decade.¹⁰⁰ It is unclear if this declining enrollment is due to increased enrollment in private and correspondence schools; however, declining enrollment could indicate a future risk to the borough's labor pool.

Opportunities

Expansion of trades. New employment opportunities in mariculture, tourism, and the trades indicates opportunities for wage growth and business development in the region. The trades sector is often high paying, high skilled jobs. New training opportunities in the borough for technical and vocational training could help funnel residents into these jobs.

Access to health care. Limited access to health care in the region has been a challenge in the past and to some extent still is a challenge throughout the borough, with residents traveling to Anchorage or out-of-state to access health specialists. However, recent growth in the health care industry and expansion to health services represents an opportunity for employment growth and improved quality of life in the region. Residents cite access to health care as one of the key drivers for potentially leaving the borough. Improving access to health care could help prevent out-migration.

Expansion in recreation opportunities. Access to recreation opportunities and natural beauty in the borough are listed as two of the primary reasons why residents choose to live and stay in the borough, and why business owners choose to locate their business in the region. Outdoor recreation is a growing industry in Alaska and an important component of quality of life. Expansion of recreation access points across the borough could help generate new economic activity, attract more visitors to the region, and improve quality of life for residents.

Threats

Early childhood and pre-k education access. Early childhood education access across the borough is limited and expensive. Of the estimated 4,120 individuals under the age of six living in the borough, 32 percent are not having their early childhood education needs met. On average, households in KPB spent 17 percent of their income on licensed early childhood development services in 2020. Only 29 percent of children entering the education system met 11 of the 13 Alaska Development Profile goals.¹⁰¹ Gaps in early childhood education in the borough reduce quality of life in the region and impact the long-term strength of the region's economy.

High unemployment. While unemployment rates in the region have historically been lower than statewide averages. The impacts of the COVID-19 pandemic on the economy, especially the tourism and hospitality sector, caused the unemployment on the Kenai Peninsula to spike. It remains undetermined how long recovery from the economic impacts of COVID may take, but impacts from the pandemic will likely be felt for some time on the borough workforce.

Out-migration. Between 2011 and 2020, KPB experienced net out-migration in six of the ten years.¹⁰² While migration in and out of a region is natural, constant long-term migration out of the region poses a risk to the strength of the local workforce.

Decline in wages. Over the last decade, the real value of wages in the region has steadily declined, indicating that wage growth on the Kenai Peninsula have not kept up with inflation. This is a threat to quality of life in the region as the real cost of goods and services continue to rise in comparison. It is also a threat to the region's workforce and employers attracting and retaining qualified employees.

IV. Resiliency

In recent years, the Kenai Peninsula economy has been challenged by a series of unanticipated shocks that ultimately impacted all households and employers in the region in some way. Of greatest magnitude naturally is the COVID-19 pandemic beginning in March 2020. The COVID recession likely led to more job losses and business closures than any prior economic downturn in the Peninsula's history. Yet, COVID-19 is only the most recent of multiple natural disasters to impact the region. In November 2018, a 7.1 magnitude earthquake hit Southcentral Alaska, including the Peninsula, causing uncounted millions in property damage around the state. In 2019, the Swan Lake Fire raged between Sterling and Cooper Landing from June through September, causing public health warnings, loss of private property, disrupting visitation, and forcing the closure of popular recreation sites.

Even without these natural disasters, the Kenai Peninsula was not immune to broader forces weakening the statewide economy. Two headwinds in particular have been the volatility of oil prices, and the unresolved budget deficit in state government finances. Together, these two forces caused a three-year statewide recession, from 2015 to 2018, that destroyed thousands of Kenai Peninsula jobs. The fact that the state (and regional) economies were somewhat weak at the outset of the COVID-19 pandemic could potentially mean a slower economic recovery compared to other parts of the US.

Resiliency Threats

COVID-19. Much of this CEDS document has discussed the economic damage caused by the COVID-19 pandemic. On the Kenai Peninsula, the viral outbreak caused peak summer employment to fall by nine percent,¹⁰³ taxable sales by 12 percent,¹⁰⁴ and a massively diminished visitor season in 2020. As of May 2021, the Borough had reported nearly 4,500 cases of COVID-19, over 100 hospitalizations, and 22 deaths.¹⁰⁵ The rollout of vaccines in the spring of 2021 improved optimism about a return to normalcy. However, the cruise ship season in 2021 appeared to face formidable obstacles as of the writing of this document, as the ships were disallowed to enter Canadian waters.

The Pandemic Hit Most Industries

Employment change by industry from August 2019 to August 2020.



Figure 42: Employment change by sector from August 2019 to August 2020.
 Source: Alaska Department of Labor and Workforce Development, QCEW.

Earthquakes. Southcentral Alaska sits at the northern extreme of the Pacific “Ring of Fire” that circles the world’s largest ocean, causing seismic events from Indonesia to South America. The Kenai Peninsula therefore sees frequent earthquakes and periodic volcanic eruptions. Most earthquakes are small in magnitude and do not cause notable damage, but the 2018 earthquake was an important reminder of destructive potential. The Good Friday Earthquake of 1964 was the most devastating in the region’s recorded history, causing especially strong damage in Seward from the resulting tsunami.

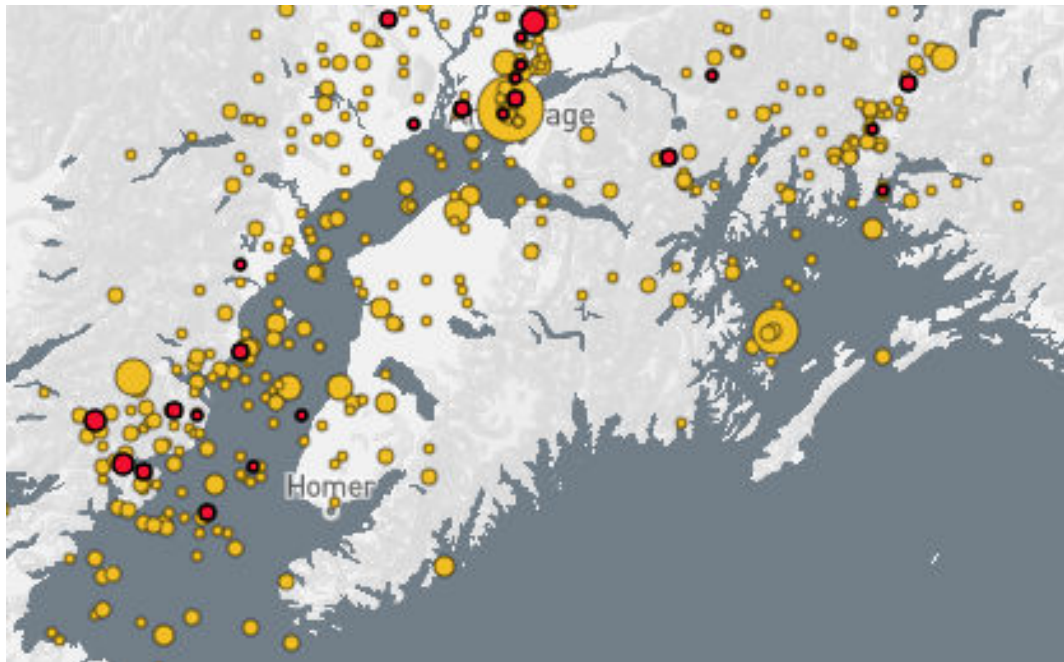


Figure 43: Seismic activity in the Kenai Peninsula between April 17 and May 3, 2021.
 Source: Alaska Earthquake Center.

Volcanoes. On the western side of Cook Inlet sits a chain of active volcanoes—Augustine Volcano, Mount Iliamna, Mount Redoubt, and Mount Spur. In the last two decades Augustine and Iliamna have erupted, triggering earthquakes and spewing ash thousands of feet into the air. The ash grounds flights and causes health hazards as it lingers in the air.

Wildfires. Much of the Kenai Peninsula’s is covered with spruce, birch, and cottonwood forest. Forest fires have been a perpetual hazard in the region since its first inhabitation by humans, although most fires have beneficial ecosystem effects. Nonetheless, large scale fires near inhabited areas can bring economic damage. The Swan Lake Fire of 2019 is one recent example. Crews worked hard to minimize infrastructure and property damage, but highway shutdowns and closures of recreation sites likely harmed visitation and local spending. Future fires could threaten natural gas distribution, power lines, commercial property, homes, and lives. Spruce bark beetles contribute to fire risks by leaving dead standing spruce trees in their wake, which become tinder for the next burn.



*Figure 44: Remnants of the Swan Lake Fire, June 2019.
Source: AK Fire Info.*

Erosion and floods. These are constant factors effecting life and commercial activity at the water's edge. The Kenai River, a center for economic activity in much of the region, has been prone to periodic flooding and steady erosion. Oldtown Kenai, which sits on a bluff above the river near its mouth, has been in need of serious control measures to retain its viability. The Homer Spit, a key commercial and tourism area, has seen erosion from heavy surf during storms. Prolonged heavy rains have also caused flooding in Seward near the Resurrection River, and resulted in the washout of bridges.

Fisheries disasters. Salmon runs fluctuate according to natural cycles and environmental changes, often with implications for commercial, recreational, personal use, and subsistence fisheries. Poor returns of Kenai River king salmon, once a major draw for anglers, have weakened a once-thriving guide industry since about 2008. This means less spending by visitors on fishing gear, guide services, and lodging.¹⁰⁶ Halibut and sablefish from the Gulf of Alaska are federally-managed fisheries operated through quota systems. Reductions in allowable catch from year to year result in lost income for fishermen and processors, particularly in Seward and Homer. A potential long-term threat to fisheries is ocean acidification, caused by increased dissolution of carbon dioxide into seawater. Acidification could potentially harm the biomass of copepods, a key food source for other fish.

Oil and gas prices and supply. Like all of Alaska, the Kenai Peninsula economy is sensitive to changes in the price of oil. The 2015-2018 recession was caused primarily by depressed oil prices, which rippled through the economy as the oil companies reduced employment and spending on contractual support services. This impacted the Cook Inlet oil and gas fields as well as the North Slope (where some Kenai Peninsula residents work) and caused reductions in state spending. An additional complication for the region is the relatively low remaining known reserves of both oil and gas. Although the Cook Inlet Basin will likely produce oil and gas for decades, the gas supply is likely to be insufficient to meet in-state

demands after 2030. Declining production could mean declining employment, if not offset by new discoveries.



*Figure 45 Mt. Redoubt eruption, 2009.
Source: Wikimedia Commons*

Resiliency Action Plan

Recognizing the very real danger posed by unexpected negative shocks, KPEDD has taken the lead in anticipating—and responding to—resiliency challenges. In cooperation with partner organizations, KPEDD lays out the following framework for resiliency.

Pre-Disaster Planning

Careful coordination and planning for potential disasters ahead of time can pay off when a negative event occurs. A pre-disaster recovery plan being spearheaded by KPEDD will describe key stakeholders, roles, actions, and responsibilities in the event of a natural disaster. The major stakeholders include KPB, municipal governments, tribes, chambers of commerce, industry associations, and others. As it has during COVID-19, KPEDD can be the primary coordinating role among these groups in promoting economic recovery. The pre-disaster recovery plan will also include a collection of resources and tools for business recovery, such as sources of funding.

Activating Information Networks

The flow of timely and accurate information between governments, business groups, and residents is essential during a disaster. KPEDD is utilizing a network of partner organizations, detailed web resources, access to media outlets, and a large business distribution list to maintain the flow of

information. Maintaining close contact with federal funding agencies, the State Legislature, and state agencies is also essential. During a prolonged downturn, business surveys can relay vital information to decisionmakers about near-term needs for policy fixes and financial resources. KPEDD's frequent business surveys function as an early-warning indicator as well, flagging concerns that can lead to large-scale layoffs or closures, as well as to facilitate business retention and expansion (BRE) activities.

Ensuring Access to Capital

Disasters often cause businesses to experience sudden revenue shortfalls, often forcing them lay off workers, reduce hours, or close their operations entirely. KPEDD has operated a revolving loan fund for more than a decade, and is currently working to restructure the fund as a source of emergency capital to respond to resiliency shocks. In addition to its own capital sources, helping business access other financial resources will play a key role in future disasters, should they occur. In 2020, KPEDD executed a contract with the State of Alaska to promote the AK CARES business grant program, resulting in \$50 million being distributed to over 1,000 COVID-impacted businesses—proportionately more than any other region of the state. Other government capital programs like the Paycheck Protection Program (PPP) and Economic Injury Disaster Loan (EIDL) were critical resources, but businesses often required the assistance of organizations like KPEDD and the Alaska Small Business Development Center. KPEDD will reprise its role as both a facilitator and provider of capital during future events.

Improve Broadband Access and Affordability

Broadband is critical infrastructure in today's global economy. The pandemic resulted in roughly 40 percent of Alaska workers being forced to work from home for extended periods during 2020 and 2021. The education system, from K-12 through college, also had to utilize videoconferencing services to function. For households without affordable, high-speed internet, remote education and work were not feasible. In addition, many businesses also had to transition to selling their products or services online, such as restaurants using mobile apps for take-out and delivery. Although these pandemic conditions are not permanent, they made clear the central role broadband access plays in economic life. In the Kenai Peninsula, less than half of households have access to speeds of 100 MBPS, compared to almost 99 percent in Anchorage. Some smaller communities, such as Hope, lack access to speeds greater than 25 MBPS. To improve broadband access, KPEDD is committed to advocating for federal funds to build middle-mile and last-mile satellite and fiber infrastructure.

Streamlining Job Access

Job loss is one of the most feared outcomes from any sort of resiliency shock. Declining revenues cause employers to lay off workers, but when conditions improve, employers often struggle to find qualified workers. Both challenges have been apparent during the COVID recession. At the same time, workforce readiness is a persistent challenge for businesses, who are often forced to hire non-locals when faced with high seasonal demand. With all of these in mind, KPEDD launched the Kenai Peninsula Workforce website as an extensive resource hub for jobseekers, employers, and training programs. The website provides detailed information about high-demand occupations in the region, including average salaries, qualifications, and associated training programs. It also links to job postings, scholarships, apprenticeships, and jobseeker tools like a resume builder.

Ensure Transportation Reliability

Transportation infrastructure is a potential vulnerability for the Kenai Peninsula. The Seward and Sterling Highways connect the Borough communities to each other and to Anchorage, and suffer frequent shutdowns due to fatal traffic accidents and, periodically, avalanches. Poor maintenance conditions in the winter can also sever this key artery. The Alaska Marine Highway System (AMHS), which has suffered from budget cuts, is another area of transportation concern. AMHS serves Homer and Seldovia but has been forced to reduce the frequency of sailings, disrupting an affordable means to moving people and goods. Seldovia is particularly dependent on AMHS, as it lacks highway access. KPEDD advocates for ongoing support for highway maintenance and safety improvements, and continuing state funding for AMHS.

Efficient Land Use

Although the Kenai Peninsula is vast in size, relatively little land is available for residential and commercial use. Between the Kenai National Wildlife Refuge and the Chugach National Forest, private ownership is primarily limited to lands adjacent to the highway system. Efficient use of land to maximize economic benefit is therefore critically important. One protective measure to do so is erosion control and mitigation. As mentioned previously, lands in Homer, Kenai, and Seward, as well as other areas threatened by erosion will require mitigation and protection measures. Without flood and erosion control, private investment will not occur in certain areas like Downtown Kenai. Other sites formerly used for mining or another purpose can also be reused, such as Red Mountain near Seldovia, a former mine proposed for use as a recreational area.

A Focus on Emerging Industries

One way to ensure a prosperous economic future amid uncertainty is to diversify the regional economy by promoting emerging industries. On the Kenai Peninsula, this includes shellfish farming, marine trades, agriculture, seafood byproduct utilization, and others. KPEDD assists these emerging sectors through business advising, project funding, workforce development, and lending activities. Emerging sectors often require specialized types of infrastructure to thrive. For example, the marine trades require ports and harbors, vessel hall outs, and specialized buildings. Both agriculture and seafood depend on cold storage. KPEDD and partner organizations work to source funding for these types of projects wherever possible.

V.Goals

Quality of Living/Place is the overarching goal. This includes continuing to develop the Kenai Peninsula "brand" for residents, visitors, and businesses, and promoting expansion of recreational amenities and public access.

Overarching Goal: High Quality of Place and Quality of Life

Technology/ Telecommunications (Goal 1)

- Expanded broadband access across the Borough

Workforce & Human Capital (Goal 2)

- Industry partnerships and VOC-tech
- Attract, retain, and train a qualified workforce

Infrastructure & Land Use (Goal 3)

- Industry-focused infrastructure
- Stability and resiliency in transportation infrastructure
- Mitigation/responsible use of lands

Business Climate & Entrepreneurship (Goal 4)

- Outreach, education, and information sharing with government in support of businesses
- Promote responsible development of natural resources
- Develop and support entrepreneurship
- Create incentives to bring new businesses to the area

Regional Partnerships (Goal 5)

- Coordinate with industry
- Coordinate with municipalities, communities, and non-profits

VI. Action Plan

Overarching Goal: Quality of Place/Quality of Life			
Objective	Strategies and Actions	Metrics/Impacts	Key Partners
0.1 Develop the Kenai Peninsula “brand” for residents, visitors, and businesses	<ul style="list-style-type: none"> Initiate a promotion campaign to attract families to relocate to the Kenai Peninsula. Support telework/remote work opportunities. Sustain and enhance visitor marketing efforts to attract more shoulder-season and independent visitors. Promote the Kenai Peninsula as a safe destination during COVID-19 with high vaccination rates and minimal crowds. Support arts and cultural programming at the local level. 	<ul style="list-style-type: none"> Above average tourism rates, increase in visitors to region, sales tax revenues, gross sales increases. Increase in fishing license sales (ADFG). Hashtags, locations shared on social media platform, increase in website visits. 	<ul style="list-style-type: none"> Alaska Travel Industry Association (ATIA) Chambers of Commerce Alaska State Parks Municipal governments
0.2 Promote expansion of recreational amenities and public access	<ul style="list-style-type: none"> Fund, develop, and construct the Soldotna Fieldhouse. Fund, develop, and construct the Soldotna Riverfront Redevelopment Project Advance the Seward to Fairbanks trail concept. Solicit additional recreational projects for federal funding. 	<ul style="list-style-type: none"> Increased platforms to share project information. Project approvals/votes. Funding opportunities. Increased number of handicap accessible amenities 	<ul style="list-style-type: none"> Economic Development Administration (EDA) Municipal government

Goal 1: Technology/Telecommunications			
Objective	Strategies and Actions	Metrics/Impacts	Key Partners
1.1 Expand broadband access across the borough	<ul style="list-style-type: none"> • Create regional Broadband Taskforce to identify specific needs • Secure federal or other funds to build or expand fiber optics lines or satellite internet access to all communities to improve speeds and costs. 	<ul style="list-style-type: none"> • Average speeds. • Monthly costs. • Percent of households with access. • Level of community investment 	<ul style="list-style-type: none"> • Denali Commission • Economic Development Administration (EDA) • Tribes and Municipal Government • Large employers
1.2 Improve digital infrastructure to advance economic activity	<ul style="list-style-type: none"> • Improve access to videoconferencing services at public facilities such as libraries, civic buildings, and schools. • Encourage development of businesses related to information technology. • Enable hospitals and clinics to make better use of telemedicine. • Provide communities and residents with greater access to education through distance learning. • Make the Kenai Peninsula more attractive to technology driven businesses and corporations. <ul style="list-style-type: none"> ○ Enhance Public safety and emergency response systems. • Encourage and promote the use of distance delivery for business workshops and workforce trainings. 	<ul style="list-style-type: none"> • Number of technology startups. • Number of public buildings with videoconferencing services. • Virtual trainings held. 	<ul style="list-style-type: none"> • USDA • State of Alaska (DCCED, Alaska Development Team) • Regional Tribes • Educational Institutions • Regional Public Service Providers such as Libraries • Cook Inlet Region, Inc. (CIRI) • Cook Inlet Tribal Council • Chugach Regional Resources Commission • Incorporated and Unincorporated Community Representatives • Utility and Service Providers

Goal 2: Workforce and Human Capital			
Objective	Strategies and Actions	Metrics/Impacts	Key Partners
2.1 Build stronger industry partnerships for K-12, voc-tech., secondary, post-secondary, and adult education.	<ul style="list-style-type: none"> • Create partnerships between industry and K-12 programs as a gateway and pipeline to facilitate career exploration and to build awareness of potential careers. • Support apprenticeship or engaged learning opportunities that provide actual workforce readiness. • Collaborate to start an agricultural training program for students to work on farms during the summer. • Develop and implement Tyonek tribal workforce plan 	<ul style="list-style-type: none"> • Increased apprenticeship program enrollment numbers • Student outreach numbers • Employer outreach surveys 	<ul style="list-style-type: none"> • AVTEC • University of Alaska • Employers • School districts & home school programs • Tribal governments • Alutiiq Pride Marine Institute
2.2 Attract, train, and retain a qualified workforce.	<ul style="list-style-type: none"> • Expand on “attraction” campaigns to show off that this is a great place to live. Highlight remote work opportunities. • Targeted outreach for specific community groups (veterans, adult learners, at risk/recovery population) focused on entering the workforce and accessing training. • Provide online training opportunities including re-skilling or up-skilling programs. Including credit and non-credit options. • Identify the need for new programs and certificates based on industry feedback; including training around new/emerging technology. 	<ul style="list-style-type: none"> • Greater application rates • Increased enrollment in colleges • Increased apprenticeship applications 	<ul style="list-style-type: none"> • Alaska Department of Labor • Young Professionals Group • Veterans groups • AVTEC (or provider of re-skilling/up-skilling training) • University • KPEDD; Workforce Development Website • Kenai Peninsula School District

	<ul style="list-style-type: none"> • Support affordable housing efforts/programs in the Kenai Peninsula through public/private partnerships 		
2.3 Connect job-seekers to employers and training opportunities.	<ul style="list-style-type: none"> • Maintain and grow the Kenai Peninsula Workforce website as a hub for employers, educators, trainers, and job-seekers. • Develop an ongoing assessment of workforce needs for each industry. 	<ul style="list-style-type: none"> • Increased website traffic and clicks. • Number of employer engagements. 	<ul style="list-style-type: none"> • Local/borough employers • Vocational/technical programs • Kenai Peninsula Borough School District • UAA Kenai Peninsula College

Goal 3: Infrastructure, Land Use, and Natural Resources			
Objective	Strategies and Actions	Metrics/Impacts	Key Partners
3.1 Develop industry-specific infrastructure	<ul style="list-style-type: none"> • Complete the Seward Dock and Rail project. • Fund and develop the Alutiiq Pride Visitor Center in Seward. • Develop cold storage capacity to grow the agricultural sector. • Advocate and seek funding for port and harbor expansions in Homer, Kenai, Seldovia, and Seward. • Develop and expand shoreside infrastructure to support the seafood, oil and gas, and marine trade sectors. • Develop the “KPEDD innovation campus” concept with commercial kitchen. 	<ul style="list-style-type: none"> • Project dollars secured (public and private) • Complete implementation and completion of projects 	<ul style="list-style-type: none"> • Alaska Railroad • Farming groups • Agrium USA Inc. • University • AVTEC • Chugach Regional Resources Commission • Alutiiq Pride Marine Institute
3.2 Advance stability and resiliency in transportation infrastructure	<ul style="list-style-type: none"> • Advocate for stable funding for the Alaska Marine Highway System (AMHS) to maintain or improve service to Peninsula communities. • Assess impacts of reduced AMHS service for affected communities. • Advocate for year-round maintenance of the Seward and Sterling Highways to maintain access and safety at all times. • Advocate for ongoing state support to improve and maintain airports. • Identify and advocate for other needed improvements in road, marine, rail, and air transportation. 	<ul style="list-style-type: none"> • Number of advocacy engagements. 	<ul style="list-style-type: none"> • AMHS • ARDORs • Alaska Department of Transportation and Public Facilities (DOT&PF)

<p>3.3 Mitigation & responsible use of lands</p>	<ul style="list-style-type: none"> • Complete erosion mitigation projects in Kenai and Homer to enable continued development. • Assess the reuse/redevelopment of former gravel pits for new uses (such as recreation sites). • Identify and assess the need for zoning improvements between municipal and borough governments. • Reclaim and redevelop the former Red Mountain Mine site in Kachemak Bay into a recreation area with access and trails. • Mitigate spruce beetle damage by removing dead trees and milling the lumber for commercial or residential use. 	<ul style="list-style-type: none"> • Dollar value of public and private investment. 	<ul style="list-style-type: none"> • US Forest Service • US Fish and Wildlife Service • Alaska Division of Parks and Outdoor Recreation
<p>3.4 Promote responsible development of natural resources</p>	<ul style="list-style-type: none"> • Advocate for a stable and predictable tax structure for mining, oil, and gas operations at state and local level. • Advocate for ongoing incentives to encourage oil and gas exploration in Cook Inlet to secure energy supplies. • Support responsible mining projects that create local jobs and revenues. 	<ul style="list-style-type: none"> • Number of advocacy engagements. 	<ul style="list-style-type: none"> • State of Alaska • Kenai Peninsula Borough • Chugach Regional Resources Commission • Industry Groups

Goal 4: Business Climate and Entrepreneurship			
Objective	Strategies and Actions	Metrics/Impacts	Key Partners
4.1 Outreach, education, and information sharing in support of businesses resiliency	<ul style="list-style-type: none"> Continue business retention and expansion (BRE) activities to determine health of businesses and ways to assist with pandemic recovery. Promote buy local program Help businesses access other support services such as the Small Business Development Center. Conduct surveys of businesses to evaluate ongoing needs and areas of assistance needed. Provide updates on the regional economy and business climate to chambers, local governments, and industry groups. 	<ul style="list-style-type: none"> Number of surveys completed. Number of businesses provided with assistance. Number of businesses reporting favorable views of business climate. 	<ul style="list-style-type: none"> Alaska Small Business Center (SBDC) Small Business Administration. (SBA)
4.2 Improve access to capital for businesses	<ul style="list-style-type: none"> Restructure KPEDD’s revolving loan fund to meet needs during an economic downturn or natural disaster. Assist businesses with obtaining relief funding through federal, state, and local assistance programs. Assess the use of financial incentives such as tax credits and abatements to attract new businesses to the region or help existing businesses expand. 	<ul style="list-style-type: none"> Funding dollars awarded to businesses. Number of businesses assisted. 	<ul style="list-style-type: none"> Alaska Industrial Development and Export Authority (AIDEA) Small Business Administration (SBA) Economic Development Administration (EDA) Private lenders
4.3 Develop and support entrepreneurship and new business formation	<ul style="list-style-type: none"> Host entrepreneurship workshops for individuals starting businesses. Assist in running Startup Weekend on the Kenai Peninsula every November. Advise and counsel startup businesses. 	<ul style="list-style-type: none"> Number of workshops hosted. Number of businesses assisted. 	<ul style="list-style-type: none"> Chambers of Commerce UA Center for Economic Development (UA CED) Alaska Small Business Development Center (SBDC)

	<ul style="list-style-type: none"> • Promote Central Peninsula Small Business Week 		
4.4 Support emerging sectors with high growth potential	<ul style="list-style-type: none"> • Assist mariculture operations in meeting capital and expansion needs. • Counsel and assist industrial maritime businesses such as ship builders and repair operations. • Initiate a pilot project to develop seafood byproducts into marketable products. • Counsel and assist manufacturing businesses. 	<ul style="list-style-type: none"> • Number of marine focused businesses assisted. 	<ul style="list-style-type: none"> • Alaska MEP Center • Alaska Small Business Development Center (SBDC) • Alaska Mariculture Alliance • ARDORs • Alaska Department of Commerce • Chugach Regional Resources Commission • Alutiiq Pride Marine Institute

Goal 5: Build and Grow Regional Partnerships for Resiliency			
Objective	Strategies and Actions	Metrics/Impacts	Key Partners
5.1 Proactively coordinate roles for economic resiliency	<ul style="list-style-type: none"> Align and streamline assistance roles between funding agencies and resource partners in the event of an economic disaster. Promote, and expand current processes for regular communication, monitoring and updating business community needs and issues to be used post-event. 	<ul style="list-style-type: none"> Complete KPEDD resiliency toolkit 	<ul style="list-style-type: none"> Funding agencies Borough government Municipal governments Tribal entities & Native Organizations Chambers of Commerce Industry groups Nonprofits
5.2 Produce pre-disaster recovery plan	<ul style="list-style-type: none"> Create a collection of resources (especially financial resources) of private, local, state, and federal tools for economic recovery for residents, businesses, and communities. Generate a plan describing key stakeholders, roles, actions, and responsibilities in the event of a natural disaster. 	<ul style="list-style-type: none"> Complete KPEDD resiliency toolkit 	<ul style="list-style-type: none"> Funding agencies Borough government Municipal governments Tribal entities & Native Organizations Chambers of Commerce Industry groups Nonprofits

Appendix A: Business Survey Results

To support the SWOT Analysis and the Goals and Action Plan sections of this document, an initial survey instrument was designed to draw perspectives from across the borough on the regions business and economic climate, quality of life, and opportunities for the future. While the survey results are not statistically significant, they do apply context and texture to the items discussed in this CEDS.

The survey instrument was split into two separate surveys: a business survey and resident survey. The surveys were open between the following dates:

- Business Survey: February 8, 2021 to February 15, 2021; and,
- Resident Survey: February 17, 2021 to February 26, 2021.

Both surveys were available on KPEDD’s website and promoted by KPEDD staff and board members.

Business Survey Results

General Overview

A total of 72 individuals completed the business survey, with businesses located across the borough. The majority of the survey respondents were located in Homer.

Business Survey Responses

Responses by location to KPEDD CEDS business survey.

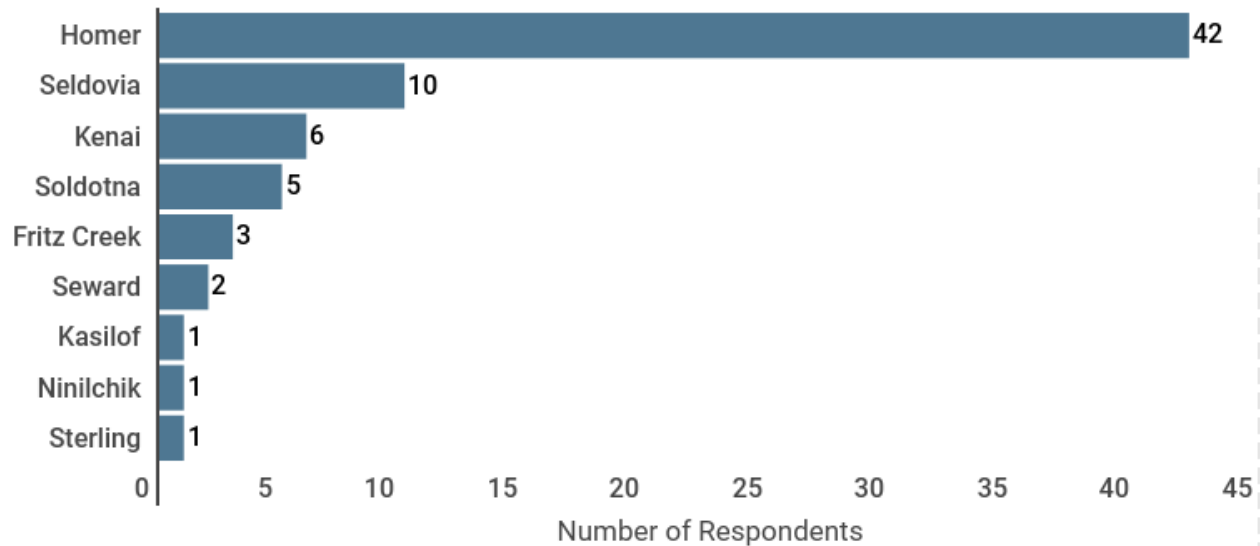


Figure 46: Responses by location to KPEDD CEDS business survey.

The businesses surveyed came from a variety of sectors. The top five sectors with survey responses included:

- Retail;
- Accommodation and food services;

- Arts, entertainment, and recreation; agriculture,
- Forestry, fishing, and hunting; and,
- Construction.

What Industries do Businesses Work In?

Business survey responses by industry.

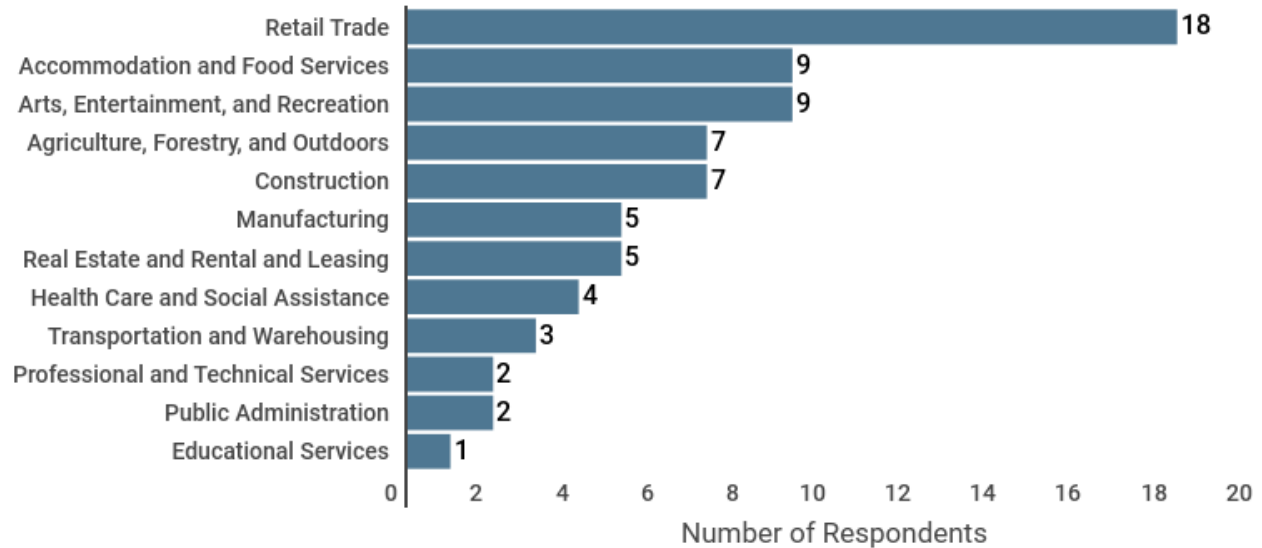


Figure 47: Business survey responses by industry.

While it was not the goal of the of the surveys to target any specific population or industry, it is important to note the bias that the skew in the data create. Survey results clearly emphasize the specific communities and specific industries, creating bias in the priorities identified, challenges listed, and opinions on economic conditions.

Operation and Employment

Of the businesses surveyed, the majority operate year-round. The remaining are split between a mix (year-round operations with large seasonal swings) and seasonal operations.

Seasonal Swings in Hiring Among Small Firms

Business employment, current and peak season.

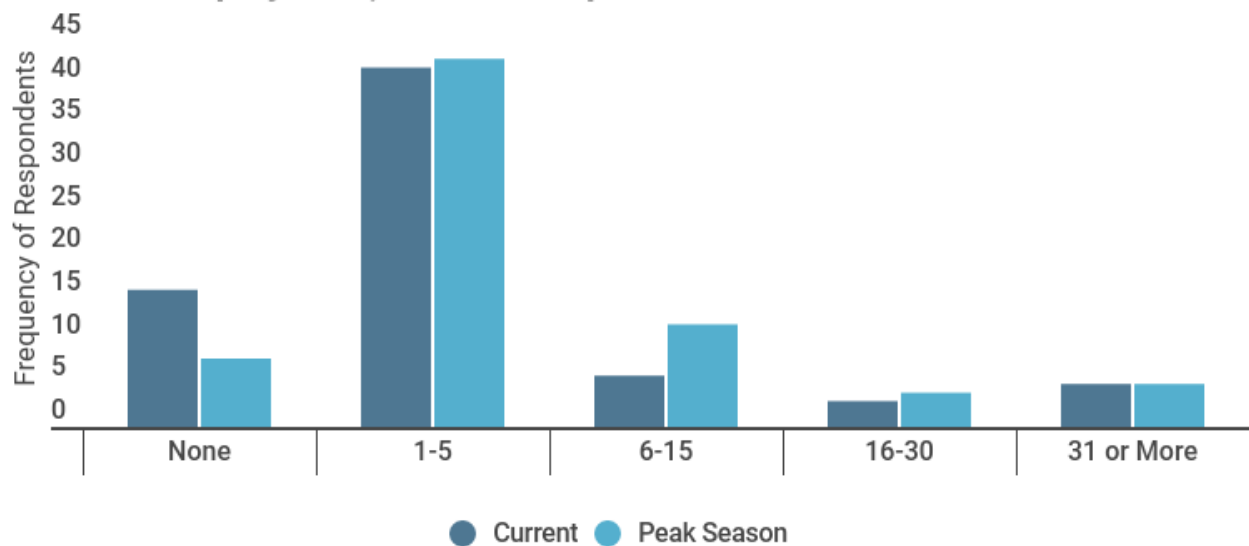


Figure 48: Business respondent employment, current and peak season.

Employment by businesses surveyed reflect business employment trends for the region as a whole. Most of the businesses surveyed employ five or fewer people. Many businesses experience some seasonal swings in employment. Current employment trends could also be reflective of the impacts to businesses from the COVID-19 pandemic.

Business Climate and Economic Outlook

Survey respondents were asked questions about their perceptions on the business climate and economic outlook for Alaska and the Kenai Peninsula. Perceptions of the business climate were relatively evenly split between 'Poor' and 'Good', with perceptions about the business climate on the Kenai Peninsula fairing slightly better than Alaska as a whole.

Business Climate Perceptions

Perceptions of the business climate in Alaska and Kenai Peninsula.

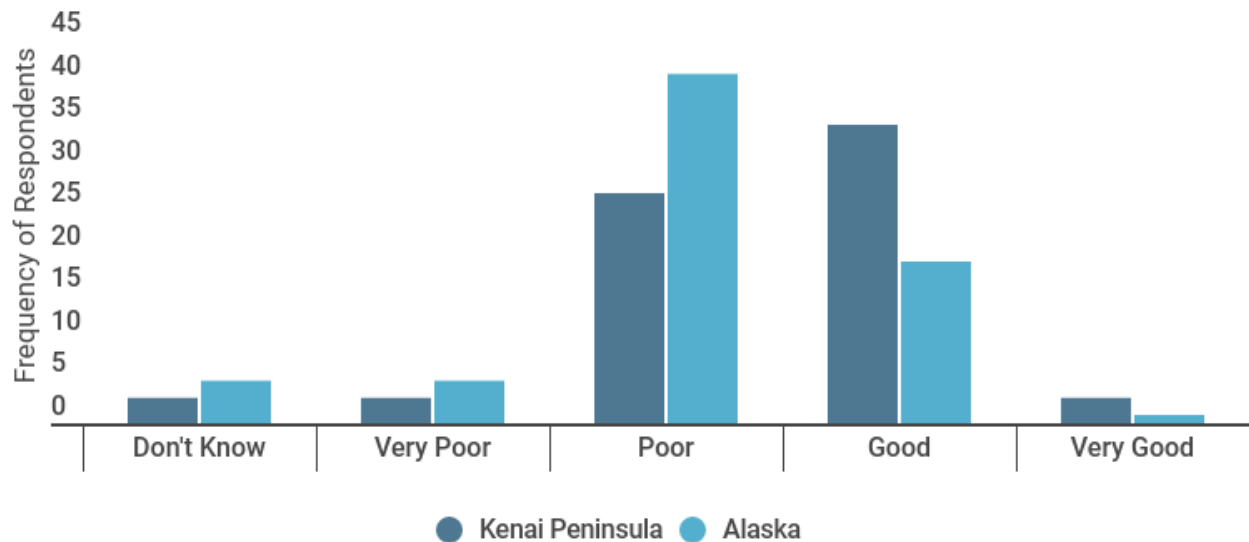


Figure 49: Business Survey perceptions of the business climate in Alaska and the Kenai Peninsula.

When asked about the economic outlook in the coming year for respondents’ business or industry, the majority identified that they expect to fair the same or better than the previous year. Considering the economic impacts of the COVID-19 pandemic, especially to the hospitality and tourism industries, a slightly better outlook over the next year signals recovery for the region.

Economic Outlook on the Kenai Peninsula

Perceptions of the economic outlook over the next year, compared to the last year on Kenai Peninsula.

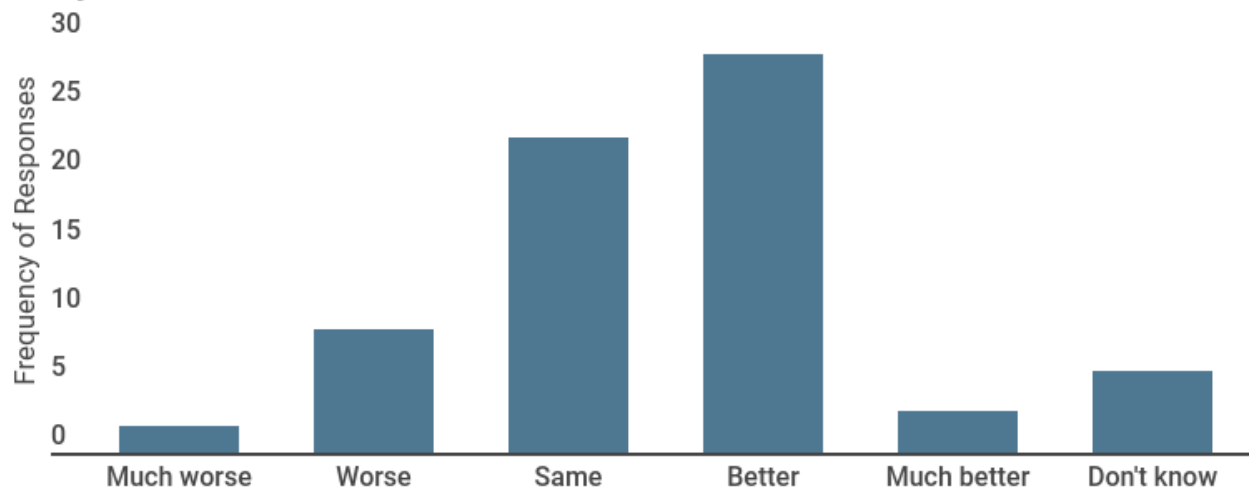


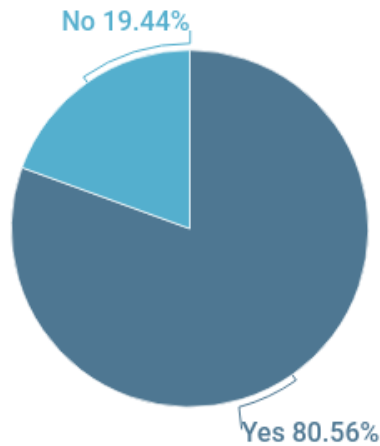
Figure 50: Perceptions of the economic outlook over the coming year, compared to the previous year.

Impacts of COVID-19 Pandemic

Of the businesses surveyed, 81 percent were negatively affected by the COVID-19 pandemic. Of those affected, the majority experienced a decline in revenues; however, temporary closures, reduced hours, and layoffs were also common.

Impacts of COVID on Businesses

Businesses impacted by COVID



Types of COVID impacts to businesses

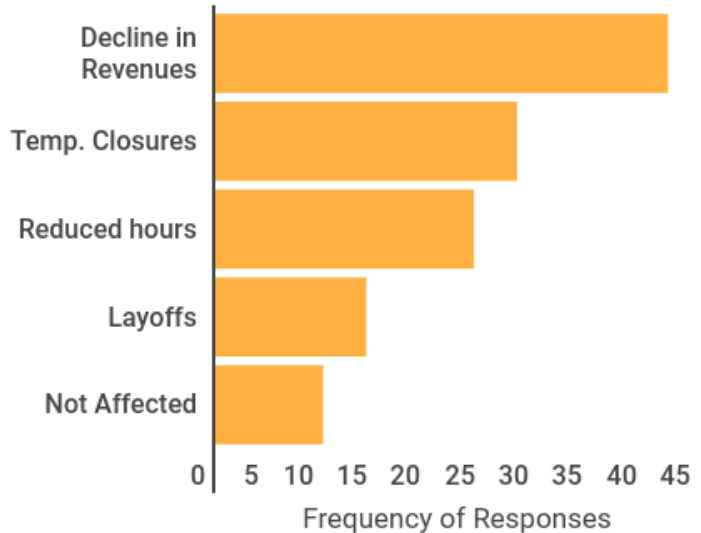


Figure 51: Impacts of COVID on business survey respondents.

Survey respondents were also given the opportunity to expand on other impacts felt by the pandemic. Examples of impacts of COVID listed by businesses included:

“Folks not able to travel to view properties, buyers pulling out from making offers due to nervousness about the future.”

“Canceled events.”

“Doors open yet mandates in AK and outside reduced availability.”

“Will probably have to close my doors.”

“Supply shortages.”

Challenges and Barriers to Doing Business

Survey respondents were asked about the challenges and barriers to doing business in the borough. Specific questions were targeted at:

- Workforce challenges;
- Conditions of the local, state, and national economy;

- Costs of labor, goods, and services; taxes;
- Cost and availability of commercial property and housing;
- Public safety;
- Access to capital;
- Transportation linkages; and,
- Regulations.

The most significant challenges identified by businesses included access to qualified labor, conditions of the state and national economy; cost of goods and materials; energy prices; and transportation linkages with suppliers and markets.

Workforce Challenges on the Kenai Peninsula

Workforce challenges experienced by survey respondents.

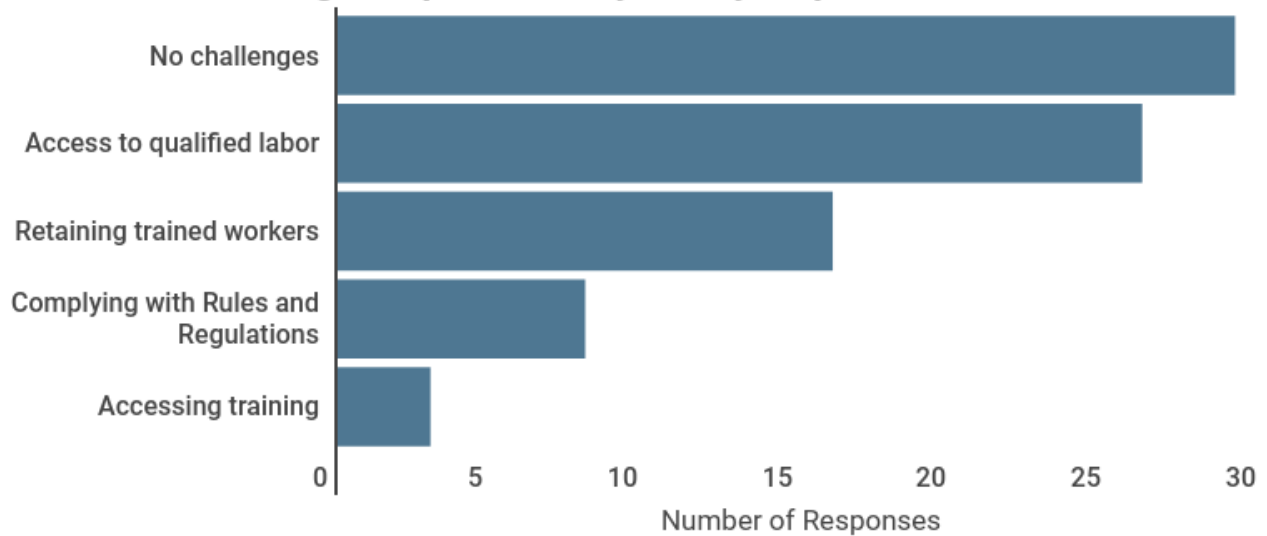


Figure 52: Workforce challenges experiences by business survey respondents.

Barriers to Doing Business on the Kenai Peninsula

Perceptions of barriers to business growth experienced by survey respondents.

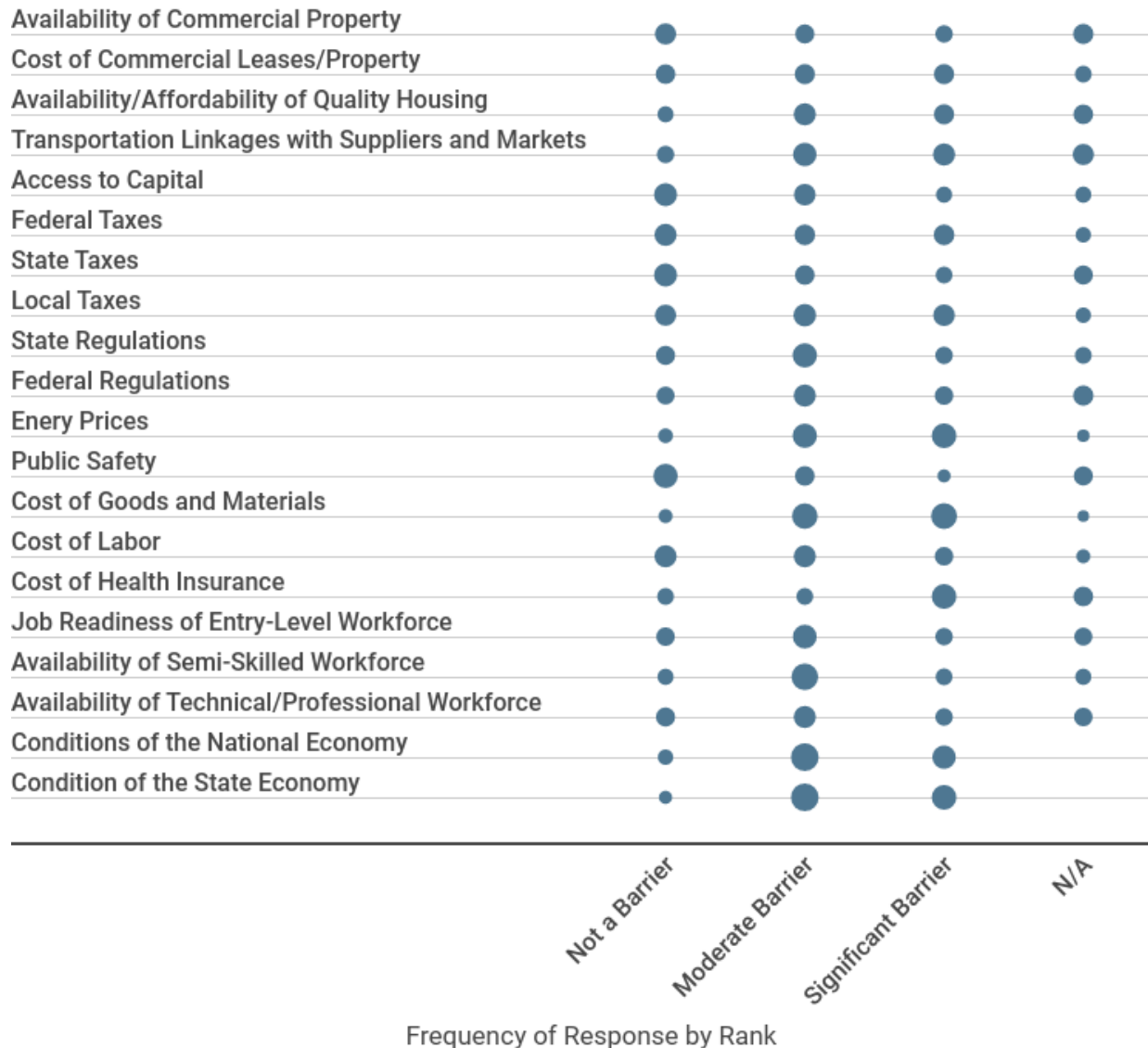


Figure 53: Perceptions of barriers to business growth experienced by business survey respondents.

Respondents were also given the opportunity to list other business challenges. Selected responses included:

“Finding reasonable outlets for selling.”

“Marketing is costly.”

“Dramatic drop in visitors who purchase my art work and adventure services.”

“As a remote community, the biggest challenge is consistent access to the ferry system to receive supplies. “

“Affordable housing for employees, cost of living.”

“High shipping cost [mentioned 4 times]”

“Lack of good retail space.”

“Tourism impacted by COVID.”

Why Do Business in the Borough?

Business respondents were also asked why they choose to locate themselves in the borough. The goal of this was to determine the aspects of life and doing business in the borough that should be retained. The existing strengths.

Survey respondents identified with a mix of reason, family, and proximity to support resources being two of the main reasons.

Reasons for Doing Business on the Kenai Peninsula

Survey respondent reasons for locating on the Kenai Peninsula

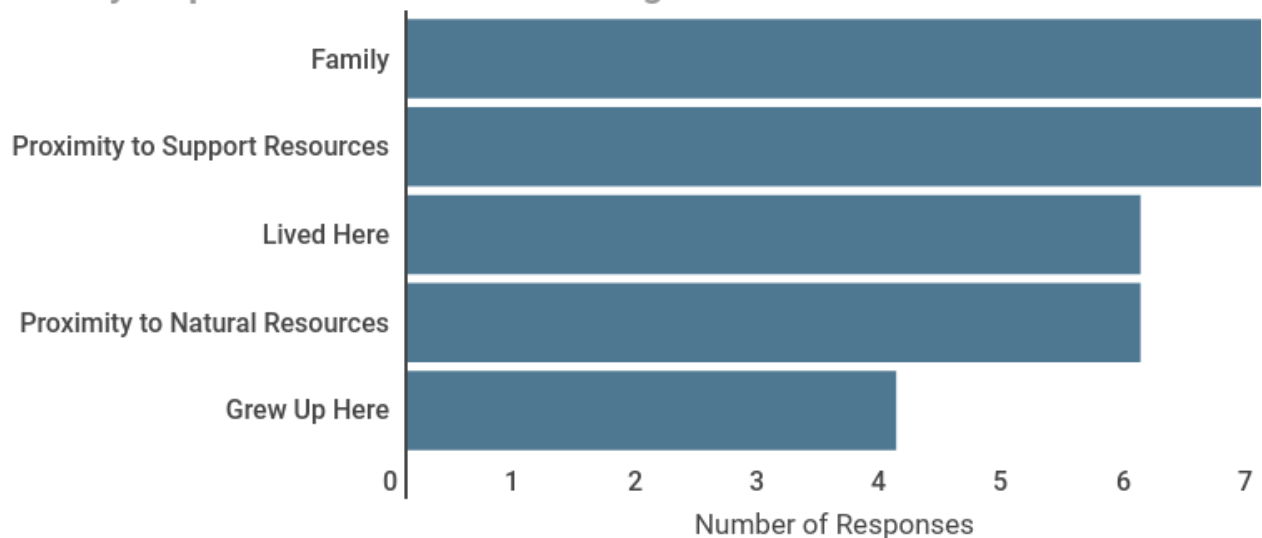


Figure 54: Business survey respondents’ reasons for locating on the Kenai Peninsula.

Businesses were also asked for their opinions on things that would improve their ability to do business in the borough. Top ranked categories included transportation investments and faster, cheaper internet.

Improving Business on the Kenai Peninsula

Perceptions on ways to improve business in the borough by survey respondents.

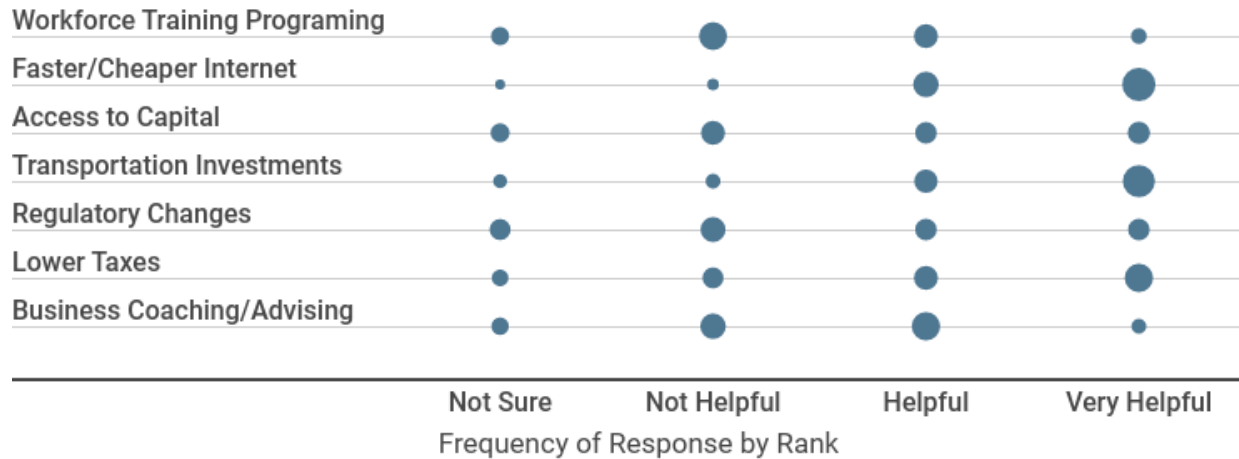


Figure 55: Perceptions on ways to improve business in the borough by survey respondents.

Other

Survey respondents were given the opportunity to provide additional feedback and insights into their perspectives on the economic future of the Kenai Peninsula. Responses included:

“Commercial fishing in Cook Inlet is vital to the growth and wellness of the KPB economy.”

“We started up in March 2020 and despite the many restrictions, we are growing at a steady pace. As restrictions ease, we can once again network with the health community to let them know how we can partner with them to care for their patients and how we can be easier for them to use.”

“[I] would like to see friendly approach to production and sale of food grown locally.”

“We need to get COVID in the rearview mirror.”

“My business was down 55% last year and looks to be worse this year.”

Appendix B: Resident Survey Results

General Overview

A total of 89 individuals responded to the resident survey. Of those 89, more than half were from the Homer area.

Resident Survey Responses

Responses by location to KPEDD CEDS resident survey.

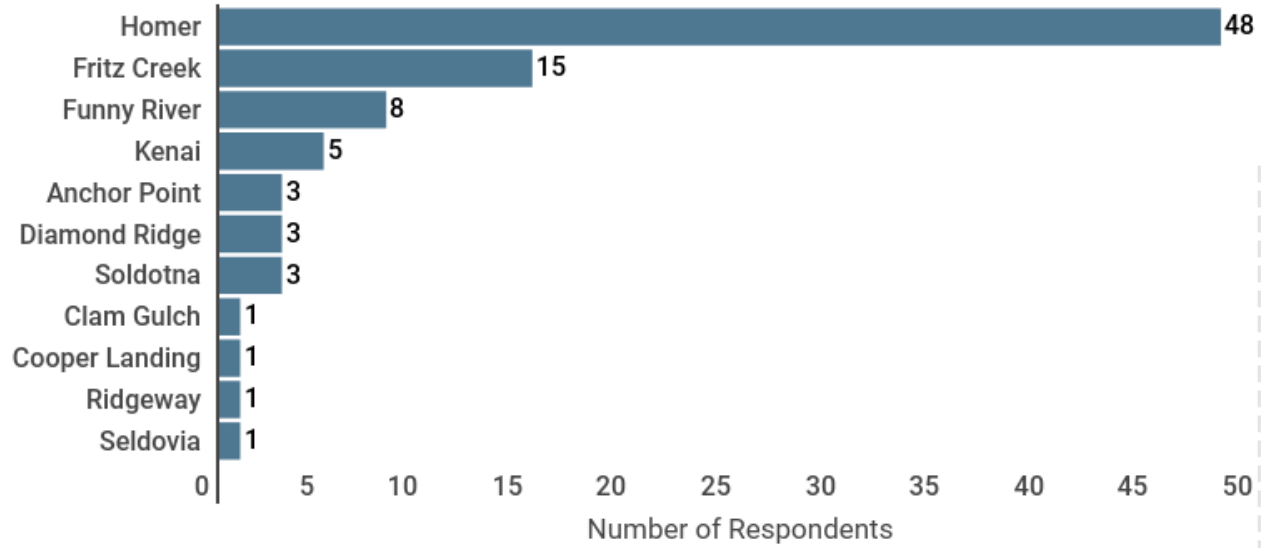


Figure 56: Resident survey responses by location.

Of the survey respondents, approximately a quarter were not currently employed, meaning they were either unemployed, retired, or otherwise not participating in the labor market. Outside of those not employed, survey respondents came from a mix of industries and professional backgrounds

What Industries do Residents Work In?

Resident survey responses by industry.

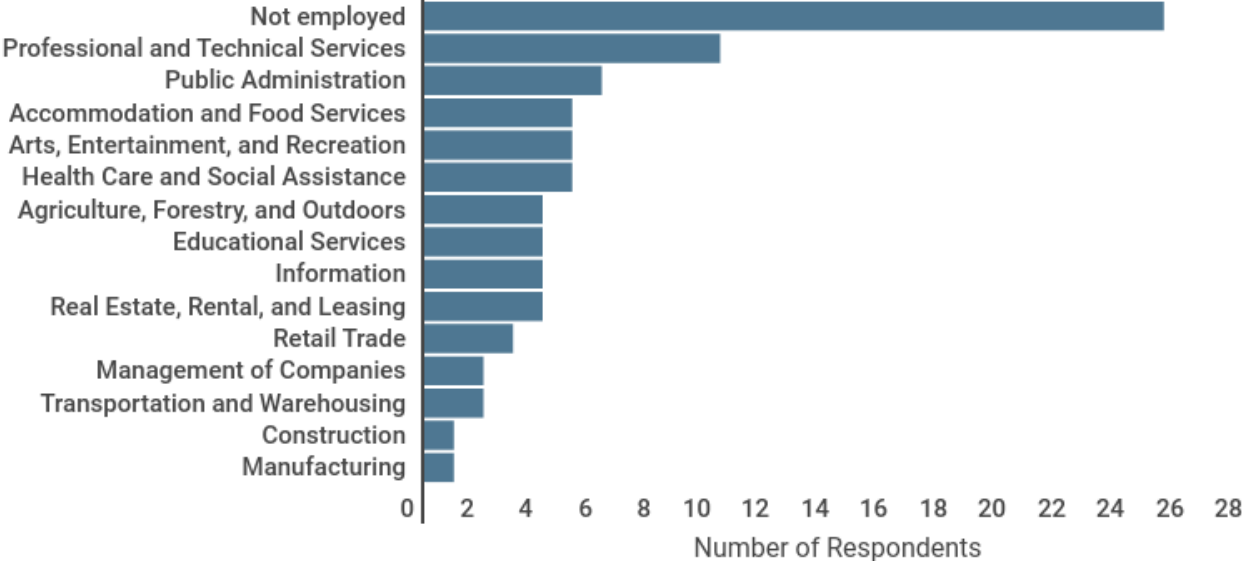


Figure 57: Resident survey responses by industry employment.

Quality of Life

Most of the questions in the resident survey focused on quality of life—those aspects of living in the borough that residents find beneficial and those that residents find challenging. Residents were asked why they choose to live in the borough, and about some of the best aspects of living on the Kenai Peninsula.

Residents listed community and proximity to recreation opportunities as two of the top reasons for living in the region. Survey respondents were also given the opportunity to provide additional feedback. Among the open responses, natural beauty and climate were common themes.

Drivers for Living on the Kenai Peninsula

Resident survey reasons for living on the Kenai Peninsula.

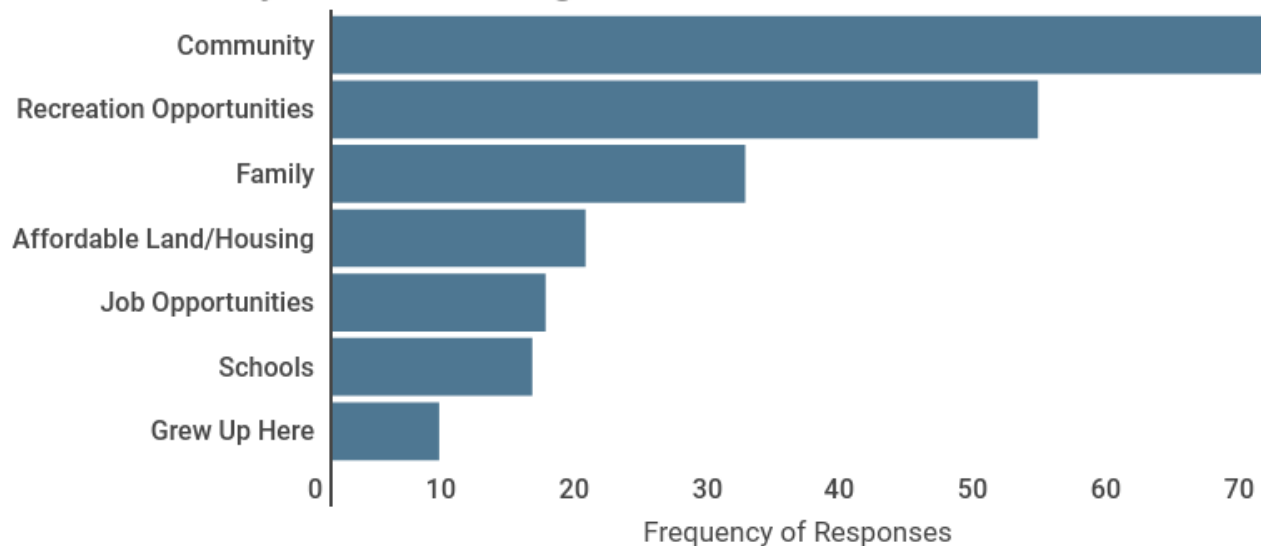


Figure 58: Resident survey respondent reasons for living on the Kenai Peninsula

Reasons for Living in KPB, Other Responses	
Married into it	Animal Shelter
Natural Beauty	View
Cultural Events	Climate
Friends	Natural Beauty
Safety	Great Place to Live
Small, Artsy, Gorgeous place to live	Great People
Agriculture	Arts
Restaurants	Culture
Art	Science
Natural Beauty	Size of Community
Healthy Ecosystems	Remoteness
Health Reasons	

Table 11: Resident survey responses, other reasons for living in KPB

When asked about the best aspects about living in the borough, the results followed similar themes. ‘Recreation opportunities’ and ‘Good place to raise a family’ received the highest the highest average scores.

Best Aspects of Living on the Kenai Peninsula

Resident rankings of top reason for living on the Kenai Peninsula.

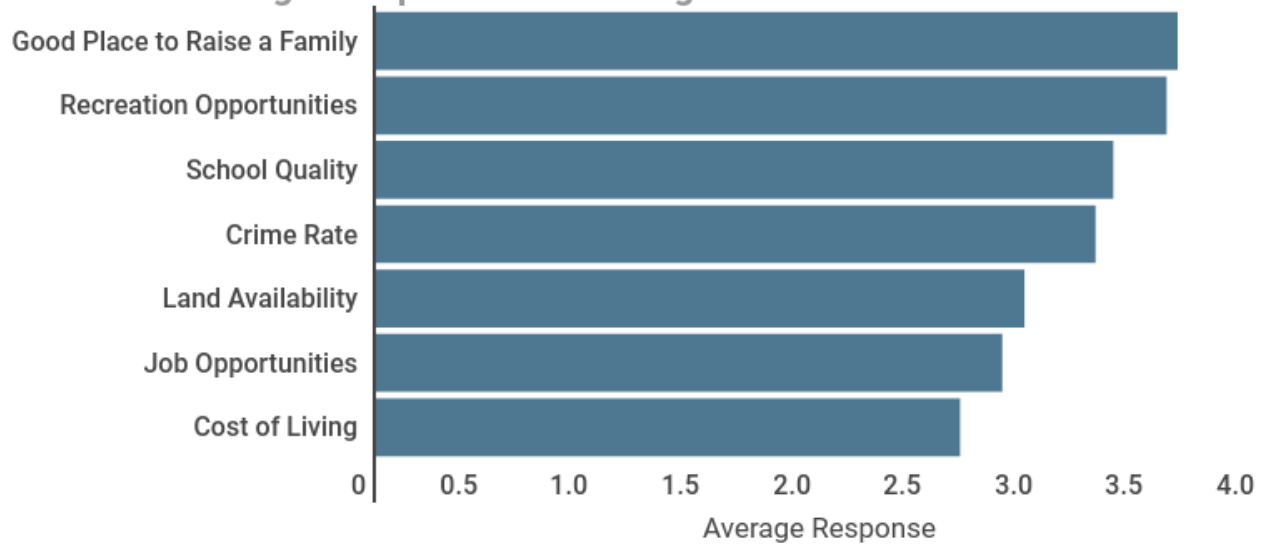


Figure 59: Resident rankings of top reasons for living on the Kenai Peninsula.

When asked about their likeliness to leave the borough more than half of the respondents responded indicated that they were very unlikely to leave.

Leaving the Kenai Peninsula

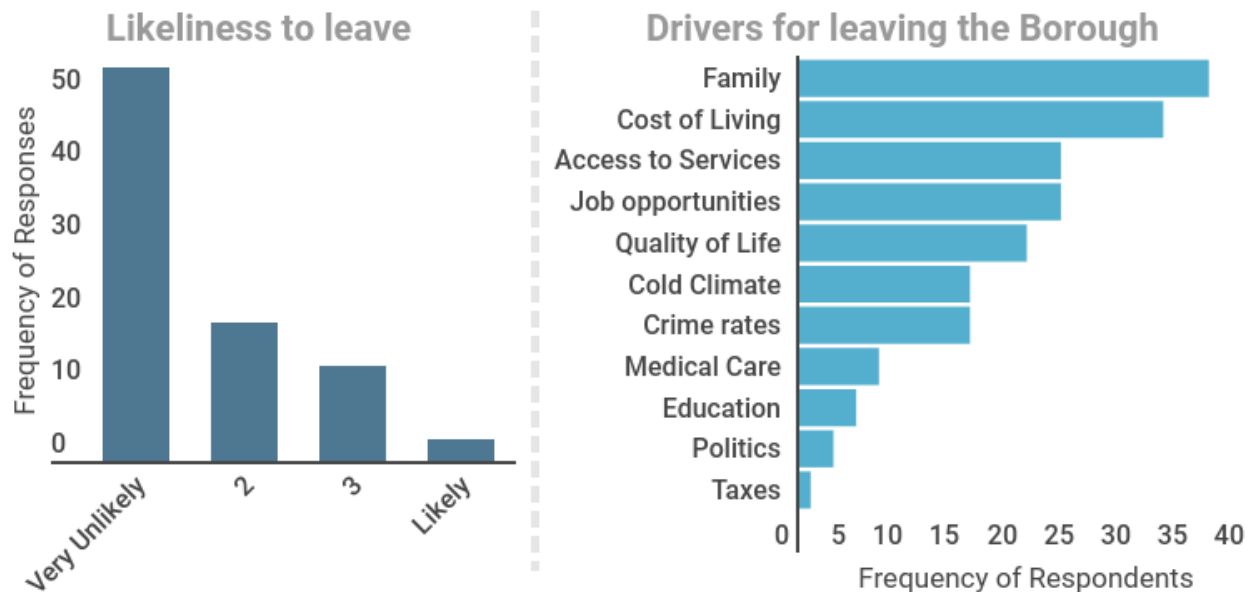


Figure 60: Likeliness to leave the Kenai Peninsula and drivers for leaving.

However, respondents indicated drivers that could motivated them to leave the borough. Family, cost of living, job opportunities, access to services, and quality of life all ranked high for frequency of responses. Other responses included, “if my car gets run over again by an Argo vehicle” and “death.”

Challenges and Threats

Residents were asked a series of questions about challenges of living in the borough and threats to the economy. Respondents were asked to rank challenges such as: housing cost, access to childcare, and broadband availability. Cost of goods and services, energy cost, and housing costs where all ranks as some of the biggest challenges, with the highest average ranking.

Challenges of Living on the Kenai Peninsula

Perceptions of challenges of living in the borough by survey respondents.

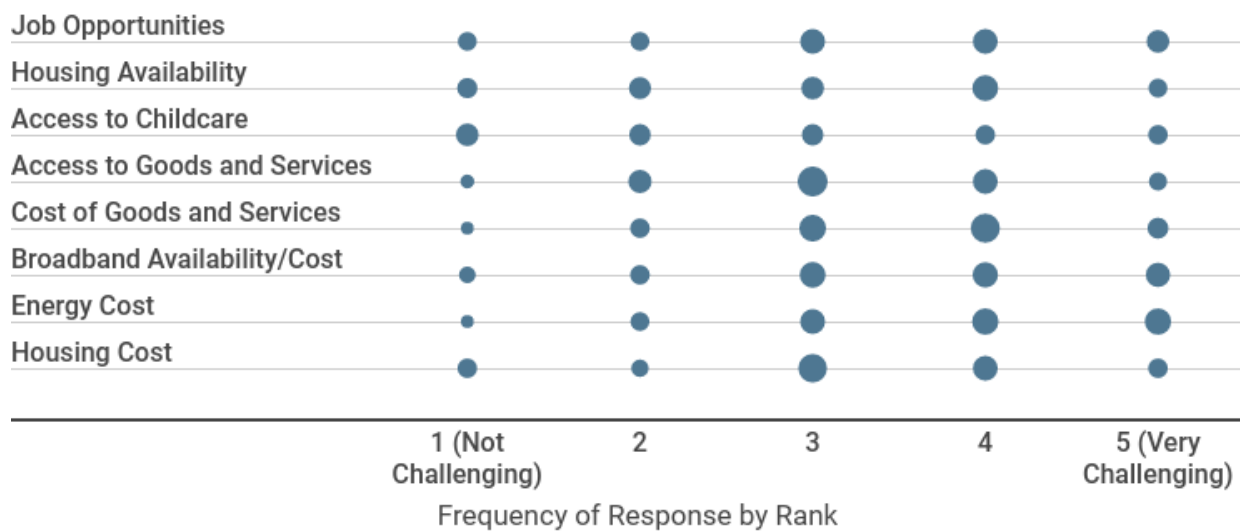


Figure 61: Perceptions of challenges of living in the borough by resident survey respondents.

Respondents were also asked about their perspectives on threats to the borough economy. Respondents were asked to rank threats as not a threat, moderate threat, significant threat, do not know, or not applicable. The highest ranked threats included:

- Disruptions to air and marine travel;
- Changes in the fishing industry;
- Decline in employment opportunities; and,
- State fiscal crisis.

Threats to the Kenai Peninsula

Perceptions on threats to the borough economy by respondents.

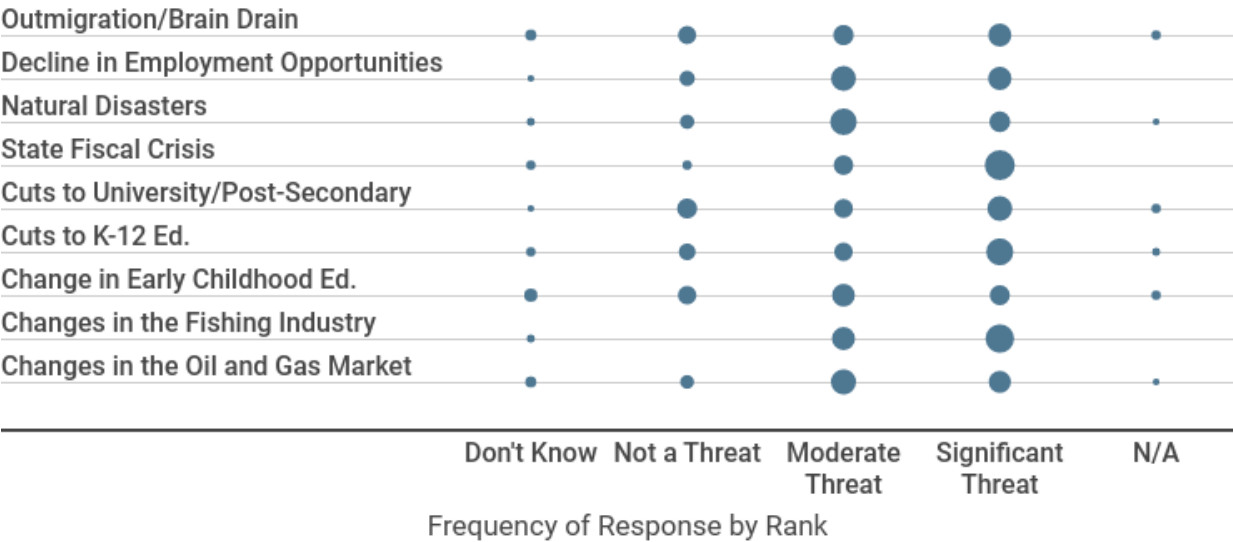


Figure 62: Perceptions on threats to the borough economy by resident survey respondents.

Development Opportunities

Residents were asked for their perspectives on development opportunities on the borough, from amenities and infrastructure to quality of life projects and industry development.

Respondents were asked what amenities or services they thought were missing from their area. Responses were grouped thematically. Themes in responses included:

- Health care;
- Social services;
- Goods and services;
- Education;
- Housing;
- Utilities;
- Land;
- Public services; and,
- Recreation.

Missing Amenities and Services on the Kenai Peninsula from Survey Responses	
Health Care	<ul style="list-style-type: none"> • Medical specialties available locally. • Mental health support. • Drug intervention. • Resident rehabilitation services. • Affordable health care (for small business owners specifically). • More hospital services.
Social Services	<ul style="list-style-type: none"> • Homeless shelter. • Support for household food provision. • Senior housing. • Low income services.
Goods and Services	<ul style="list-style-type: none"> • Health foods store. • Restaurant variety. • Tourist attractions. • Big box stores. • After school activities and summer programs. • Banks. • Legal services. • Large meeting spaces. • Cold storage for agriculture products. • Livestock processing facilities. • Large grocery store (Fred Meyer). • Affordable shipping. • Local building suppliers. • Electric vehicle charging stations.
Education	<ul style="list-style-type: none"> • Smaller school class size. • Early childhood education. • Skill base classes. • School education quality. • Vocational training.
Housing	<ul style="list-style-type: none"> • Affordable year-round housing.
Utilities	<ul style="list-style-type: none"> • Broadband access and cell phone infrastructure. • Easy access to electricity. • Better internet connection. • Natural gas access.
Land	<ul style="list-style-type: none"> • State park access via road (Eastland). • Easy access to public land (recreation). • Parks access. • Non-motorized recreation access. • Bike and walking paths. • Affordable Agriculture land. • Public access to Kenai River. • Safer access to Funny River.
Public Services	<ul style="list-style-type: none"> • Childcare. • Better snowplowing.

	<ul style="list-style-type: none"> • Public transportation. • Community center. • More school funding. • Homer Airport Safety • Piped water (Kachemak City). • Water and sewer. • Quality roads. • Representation of outlying communities at local government level. • Larger harbor. • Walkable sidewalks. • Boat launch and post office. • Reliable postal service.
Recreation	<ul style="list-style-type: none"> • Affordable gym. • Community recreation center. • Alcohol free meeting spaces (not bars and restaurants). • Alcohol free adult entertainment (dance classes or events). • Professional entertainment.

Table 12: Missing Amenities and Services on the Kenai Peninsula from survey responses.

Respondents were also asked to rank infrastructure asset development by importance. Top ranked infrastructure projects included transportation, ports and harbors, and broadband.

Infrastructure on the Kenai Peninsula

Priorities for infrastructure development in the borough by respondents.

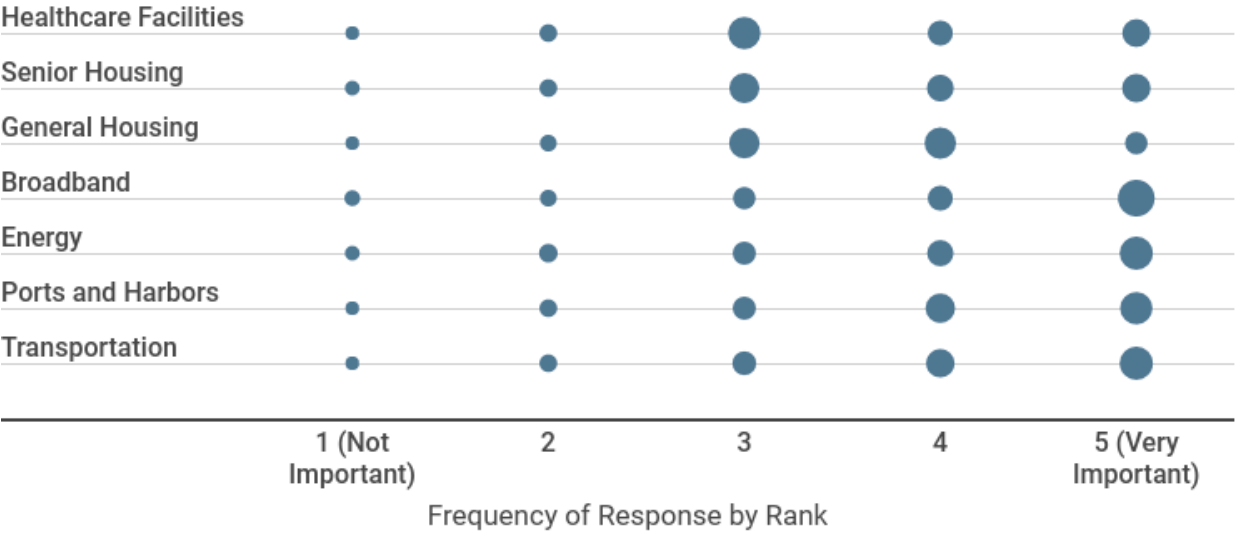


Figure 63: Priorities for infrastructure development in the borough by respondents.

Focused industry development opportunities are another component of the CEDS. Residents were asked to rank how supportive they were of developing. Top ranked industries included:

- Fisheries;
- Health Care;
- Tourism; and,
- Agriculture.

Industry on the Kenai Peninsula

Priorities for industry development in the borough by respondents.

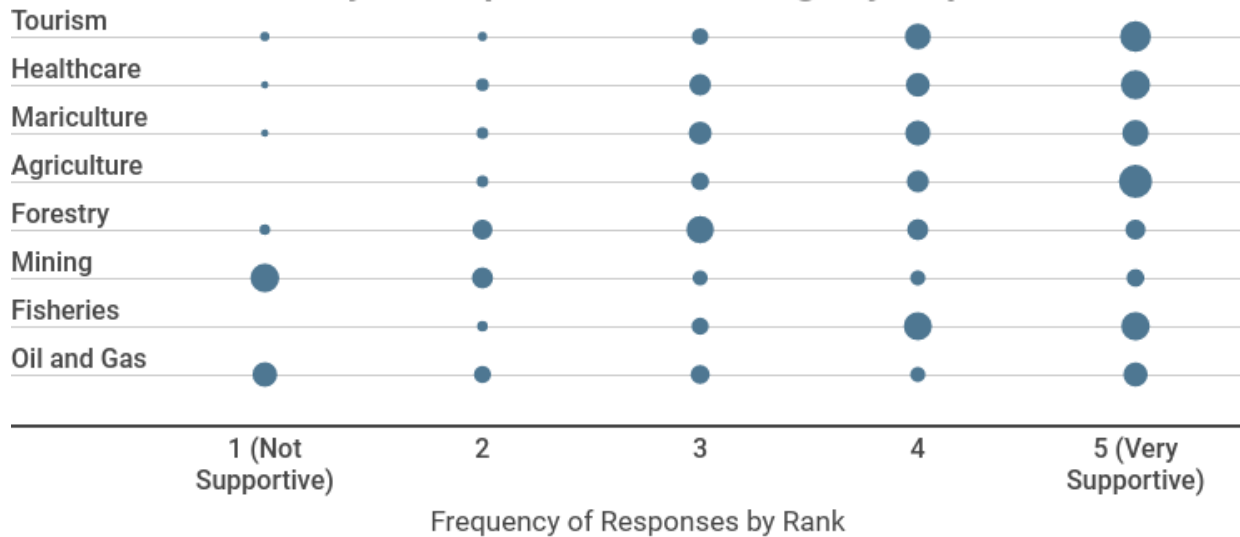


Figure 64: Priorities for industry development in the borough by respondents.

Finally, residents were asked a series of questions about their positions between two economic development extremes. These question included population development, development of government services, and land development.

Economic Development on the Kenai Peninsula

Positions on economic development options in the borough by respondents.

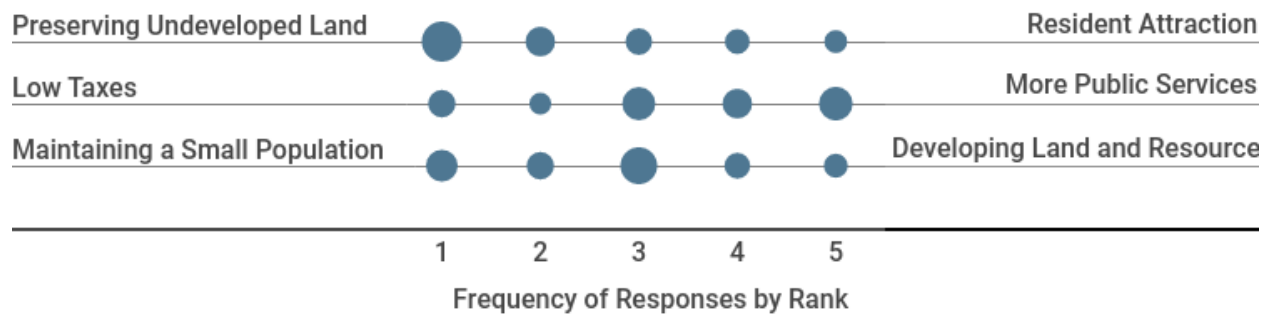


Figure 65: Positions on economic development options in the borough by respondents.

Projects and Other Opportunities

Survey respondents were asked two open ended questions to determine their interest in specific projects in the borough and other economic development opportunities. Responses included:

Projects to Improve Quality of Life:

“More senior housing with increasing levels of assistance built in.”

“Repair the bluff in Old Town, Kenai.”

“Accessible and reliable internet, affordable housing, more childcare options (esp. after school).”

“Increase broadband access, increase cell phone technologies so younger families and people can telecommute and contribute to the tax base.”

“A deep-water port, airport expansion, and a rail line.”

“Home solar and wind projects. Battery backup systems.”

“More youth programs and after school programs. More support of public schools and community colleges to educate and keep kids here.”

“Better road maintenance, lower property taxes for businesses.”

“Bike trails connecting communities.”

“More supports for working families and younger workers. More starter housing, childcare and before and after school programs.”

“More public spaces - parks and trails”

“Improved broadband and increased educational opportunities.”

Other Comments:

“I want to see KPB wisely use its resources, so that 100 years from now, people still have the same quality of life and access to the outdoors. We need to be intentional with our government spending, projects undertaken, and priorities, over a long-term horizon.”

“Startup funding for businesses along with the coaching you do would be amazing.”

“Develop and support cell technology, broadband infrastructure, and workforce development; there should be an intent to raise successful, intelligent, young humans that will want to come back to the Peninsula (if they left the area for secondary education or training) and contribute to the communities that they grew up in.”

“The Kenai is the only place I feel safe during the pandemic. It is a wonderful place with amazing people and I am lucky to be here.”

VII. Work Cited

- ¹ Kenai Peninsula Borough. *Our Geography*. Retrieved from <http://www.kpb.us/our-geography>
- ² NOAA. *South Central Alaska, Kenai Peninsula*.
- ³ FAA. *Airport Data & Contact Information*. Retrieved from https://www.faa.gov/airports/airport_safety/airportdata_5010/
- ⁴ ADN. "Magnitude-7.1 quake rocks Alaska, damaging roads and displacing residents." Retrieved from <https://www.adn.com/alaska-news/article/strong-earthquake-shakes-southcentral-alaska/2016/01/24/>
- ⁵ Washington Post. "'Major' damage to Anchorage area after severe 7.0-magnitude earthquake in Alaska." Retrieved from <https://www.washingtonpost.com/science/2018/11/30/major-damage-tsunami-warning-issued-after-severe-magnitude-earthquake-alaska/>
- ⁶ U.S. Fish & Wildlife Service. *Kenai: National Wildlife Refuge, Alaska*. Retrieved from <https://www.fws.gov/refuge/Kenai/about.html>
- ⁷ AKDOLWD. *Alaska Population Estimates*. Retrieved from <https://live.laborstats.alaska.gov/pop/index.cfm>
- ⁸ AKDOLWD. *Alaska Population Projections*. Retrieved from <https://live.laborstats.alaska.gov/pop/projections.cfm>
- ⁹ AKDOLWD. *Alaska Population Estimates*. Retrieved from Retrieved from <https://live.laborstats.alaska.gov/pop/index.cfm>
- ¹⁰ AKDOLWD. *Alaska Population Estimates: Components of Change, 2010 to 2020*. Retrieved from <https://live.laborstats.alaska.gov/pop/index.cfm>
- ¹¹ AKDOLWD. *PFD-Based Migration Data*. Retrieved from <https://live.laborstats.alaska.gov/pop/migration.html>
- ¹² AKDOLWD. *Alaska Population Estimates: Age and Sex, 2010 to 2020*. Retrieved from <https://live.laborstats.alaska.gov/pop/index.cfm>
- ¹³ AKDOLWD. *Alaska Population Projections 2019 to 2045*. Retrieved from <https://live.laborstats.alaska.gov/pop/projections.cfm>
- ¹⁴ AKDOLWD. *Alaska Population Estimates: Race and Hispanic Origin, 2010 to 2019*. Retrieved from <https://live.laborstats.alaska.gov/pop/index.cfm>
- ¹⁵ AKDOLWD. *QCEW*. Retrieved from <https://live.laborstats.alaska.gov/qcew/index.cfm>
- ¹⁶ AKDOLWD. *Alaska Population Estimates: Age and Sex, 2010-2020*. Retrieved from <https://live.laborstats.alaska.gov/pop/index.cfm>
- ¹⁷ Alaska Department of Education & Early Development. *Statistics & Reports*. Retrieved from <https://education.alaska.gov/data-center>
- ¹⁸ AKDOLWD. *Alaska Population Estimates 2019 to 2045*. Retrieved from <https://live.laborstats.alaska.gov/pop/projections.cfm>
- ¹⁹ UAA. *Enrollment by Campus*. Retrieved from <https://app.powerbi.com/view?r=eyJrIjoieZjZlZnc1OTItZjA2ZC00YjRmLWI0MTktMTViOGM1ZDc5YTlyliwidCI6IjVhNmRjMDU5LTUwNjctNDE2ZS1hZjgxLTRiNTc5ZDkwMDMyMyIsImMiOjZ9>
- ²⁰ National Center for Education Statistics. *Alaska Vocational Technical Center*. Retrieved from <https://nces.ed.gov/collegenavigator/?q=avtec&id=102711#retgrad>
- ²¹ AKDOLWD. *Alaska Rental Costs and Vacancy Rates, All Units, Selected Areas, 2010-2020*. Retrieved from <https://live.laborstats.alaska.gov/housing/rentall.cfm>
- ²² AKDOLWD. *Single-Family Alaska Loan Activity By Area, 2009-2020*. Retrieved from <https://live.laborstats.alaska.gov/housing/loanarea.cfm?ht=1>

-
- ²³ <https://www.ahfc.us/pros/energy/alaska-housing-assessment/2018-housing-assessment>
- ²⁴ AHFC. *Housing Market Indicators Report*. Retrieved from <https://www.ahfc.us/efficiency/research-information-center/alaska-housing-market-indicators>
- ²⁵ AHFC. *2018 Statewide Housing Assessment*.
- ²⁶ AHFC. *2018 Statewide Housing Assessment*.
- ²⁷ U.S. Census Bureau. *American Community Survey 2019 5-Year Estimates*.
- ²⁸ AKDOLWD. *Quarterly Census of Employment and Wages*. Retrieved from AHFC. *2018 Statewide Housing Assessment*.
- ²⁹ AKDOLWD. *Unemployment Rate—Not Seasonally Adjusted*. Retrieved from <https://live.laborstats.alaska.gov/labforce/index.cfm>
- ³⁰ U.S. Census Bureau. *American Community Survey, 2019 5-Year Estimates*.
- ³¹ Denail Commission. *2020 Distressed Communities Report*. Retrieved from <https://secureservercdn.net/198.71.233.52/02e.11d.myftpupload.com/wp-content/uploads/2020/08/2020DistressedCommunitiesReport.pdf>
- ³² UAF Cooperative Extension Service. (2018). *Alaska Food Cost Survey*.
- ³³ State of Alaska Division of Community and Regional Affairs. *Alaska Fuel Price Report: Current Community Conditions—July 2020*. Retrieved from <https://dced.maps.arcgis.com/apps/MapJournal/index.html?appid=d034924345bd4658a5e82167c752380f>
- ³⁴ U.S. Census Bureau. *American Community Survey, 2019 5-Year Estimates*.
- ³⁵ The Denali Commission. (2019) *A Blueprint for Alaska’s Future*. Retrieved from https://secureservercdn.net/198.71.233.52/02e.11d.myftpupload.com/wp-content/uploads/2019/12/2019_Alaska_Broadband_Plan_Final-1.pdf
- ³⁶ Peninsula Clarion. “Tower construction promises rural internet expansion.” Published January 7, 2021. Retrieved from <https://www.peninsulaclarion.com/news/tower-construction-promises-rural-internet-expansion/>
- ³⁷ Kenai Peninsula Borough. “Road Service Area.” Retrieved from <https://www.kpb.us/rds-service-area/about-rds>
- ³⁸ Kenai Peninsula Borough. “North Road Extension Project.” Retrieved from <https://www.kpb.us/rds-service-area/north-road-extension-project>
- ³⁹ Peninsula Clarion. “Ravn shuts down, files for bankruptcy.” Retrieved from <https://www.peninsulaclarion.com/news/ravn-shuts-down-files-for-bankruptcy/>
- ⁴⁰ Alaska News Source. “Work group to recommend cost-cutting reforms for the Alaska Marine Highway System.” Published September 30, 2020. Retrieved from <https://www.alaskanewssource.com/2020/10/01/work-group-to-recommend-cost-cutting-reforms-for-the-alaska-marine-highway-system/>
- ⁴¹ NOAA Fisheries. *Top U.S. Ports*. Retrieved from https://www.fisheries.noaa.gov/foss/www_flow.accept
- ⁴² AKDOLWD. *Quarterly Census of Employment and Wages*.
- ⁴³ Alaska Commercial Fisheries Entry Commission. *Permit Data*. Retrieved from <https://www.cfec.state.ak.us/plook/#downloads>
- ⁴⁴ ADF&G. *Statewide Commercial Operator’s Annual Report*. Retrieved from https://www.adfg.alaska.gov/index.cfm?adfg=fishlicense.coar_buying
- ⁴⁵ NOAA Fisheries. *Top U.S. Ports*. Retrieved from https://www.fisheries.noaa.gov/foss/www_flow.accept
- ⁴⁶ Gross sales tax data provided by Kenai Peninsula Borough via public records request, dated February 19, 2021.

-
- ⁴⁷ AKDOLWD. *Quarterly Census of Employment and Wages*.
- ⁴⁸ AKDOLWD. *Quarterly Census of Employment and Wages*.
- ⁴⁹ AKDOLWD. *Alaska Population Projections 2019 to 2045*. Retrieved from <http://live.laborstats.alaska.gov/pop/projections.cfm>
- ⁵⁰ Alaska Oil and Gas Conservation Commission. *Production*. Retrieved from <http://aogweb.state.ak.us/DataMiner3/Forms/Production.aspx>
- ⁵¹ McDowell Group. (2020). *Oil & Gas Industry in Alaska's Economy*. Retrieved from <https://www.aoga.org/wp-content/uploads/2021/01/Reports-2020.1.23-Economic-Impact-Report-McDowell-Group-CORRECTED-2020.12.3.pdf>
- ⁵² McDowell Group. (2020). *Oil & Gas Industry in Alaska's Economy*. Retrieved from <https://www.aoga.org/wp-content/uploads/2021/01/Reports-2020.1.23-Economic-Impact-Report-McDowell-Group-CORRECTED-2020.12.3.pdf>
- ⁵³ State of Alaska Department of Natural Resources. *Cook Inlet Natural Gas Availability*. Retrieved from https://dog.dnr.alaska.gov/Documents/ResourceEvaluation/CI_Natural_Gas_Availability_Study_2018.pdf
- ⁵⁴ NGI. "FERC clears Kenai LNG terminal in Alaska for imports." Published December 28, 2020. Retrieved from <https://www.naturalgasintel.com/ferc-clears-kenai-lng-terminal-in-alaska-for-imports/>
- ⁵⁵ Petroleum News. "Kenai plant re-opening? Agrium, Potash merge; natural gas supply key to re-opening Kenai facility." Vol. 23, No. 4. Retrieved from <https://www.petroleumnews.com/pntruncate/620028022.shtml>
- ⁵⁶ Marathon. *Kenai Refinery*. Retrieved from <https://www.marathonpetroleum.com/Operations/Refining/Kenai-Refinery/>
- ⁵⁷ State of Alaska Department of Natural Resources. *Cook Inlet Natural Gas Availability*. Retrieved from https://dog.dnr.alaska.gov/Documents/ResourceEvaluation/CI_Natural_Gas_Availability_Study_2018.pdf
- ⁵⁸ Alaska Journal of Commerce. "Hilcorp lone bidder once again at Cook Inlet lease sale." Published June 22, 2020. Retrieved from <https://www.alaskajournal.com/2020-06-22/hilcorp-lone-bidder-once-again-cook-inlet-lease-sale>
- ⁵⁹ Alaska Public Media. "Hilcorp eyes gas exploration near Anchor Point." Published February 4, 2021. Retrieved from <https://www.alaskapublic.org/2021/02/04/hilcorp-eyes-gas-exploration-near-anchor-point/>
- ⁶⁰ Alaska Oil and Gas Conservation Commission. *Production*. Retrieved from <http://aogweb.state.ak.us/DataMiner3/Forms/Production.aspx>
- ⁶¹ McDowell Group. (2016). *Alaska Visitor Statistics Program 7*. Retrieved from <https://www.alaskatia.org/wp-content/uploads/Full-AVSP-VII-Report.pdf>
- ⁶² McDowell Group. (2018). *AVSP Visitor Volume Summer 2017 Report*.
- ⁶³ McDowell Group. *Alaska Visitor Statistics Program 7*. Retrieved from <https://www.alaskatia.org/wp-content/uploads/Full-AVSP-VII-Report.pdf>
- ⁶⁴ Alaska Travel Industry Association (ATIA), 2019.
- ⁶⁵ McDowell Group. (2016). *Alaska Visitor Statistics Program 7*. Retrieved from <https://www.alaskatia.org/wp-content/uploads/Full-AVSP-VII-Report.pdf> and
- ⁶⁶ Gross sales tax data provided by Kenai Peninsula Borough via public records request, dated February 19, 2021.
- ⁶⁷ AKDOLWD. *Quarterly Census of Employment and Wages*.

-
- ⁶⁸UA CED. (2019). *Outdoor Recreation: Impacts and Opportunities*. Retrieved from <https://static1.squarespace.com/static/59f6b60bcf81e02892fd0261/t/5c7eff9415fcc0410111212a/1551826896433/Outdoor+Recreation+-+Impacts+and+Opportunities.pdf>
- ADF&G. (2007). *Economic Impacts and Contributions of Sportfishing in Alaska*. Retrieved from https://www.adfg.alaska.gov/static/home/library/pdfs/sportfish/2007economic_impacts_of_fishing.pdf
- ⁶⁹ Homer Soil and Water Conservation District. (2018). *Growing Local Food: A survey of commercial producers on the southern Kenai Peninsula*. Retrieved from <https://www.homerswcd.org/user-files//GrowersSurveyReport-HSWCD-2018.pdf>
- ⁷⁰ USDA. *National Agricultural Statistics Service*. Retrieved from https://www.nass.usda.gov/Quick_Stats/CDQT/chapter/2/table/1/state/AK/county/122/year/2017
- ⁷¹ Alaska Department of Natural Resource: Division of Agriculture. *Kenai Peninsula Alaska Farms*. Retrieved from <http://dnr.alaska.gov/ag/sourcebook/KNindex2016.html>
- ⁷² McDowell Group. (2015). *Ties that Bind: the enduring economic impact of Alaska on the Puget Sound region*.
- ⁷³ JAG Alaska Inc., Seward Shipyard. Retrieved from <https://jagalaska.com/#>
- ⁷⁴ ADF&G. *Aquatic Farming: Aquatic Plant Production*. Retrieved from https://www.adfg.alaska.gov/index.cfm?adfg=fishingaquaticfarming.aquaticfarminfo_aquaticplants
- ⁷⁵ ADF&G. *Aquatic Farming: Oyster Production Data*. Retrieved from https://www.adfg.alaska.gov/index.cfm?adfg=fishingaquaticfarming.aquaticfarminfo_oysters
- ⁷⁶ ADF&G. *Aquatic Farming Operations*. Retrieved from https://adfg.maps.arcgis.com/apps/webappviewer/index.html?id=f3ca95493c1042b39e42a3ecb5dcad6a&_ga=2.180336423.2070989561.1619027097-1101061199.1605656827
- ⁷⁷ <https://www.uaf.edu/cfos/research/index.php>
- ⁷⁸ <https://news.uaf.edu/uafs-seward-marine-center-celebrates-a-half-century/>
- ⁷⁹ NOAA Fisheries. *Top U.S. Ports*. Retrieved from https://www.fisheries.noaa.gov/foss/www_flow.accept
- ⁸⁰ Alaska Commercial Fisheries Entry Commission. *Permit Data*.
- ⁸¹ AKDOLWD. *Quarterly Census of Employment and Wages*.
- ⁸² McDowell Group. (2016). *Alaska Visitor Statistics Program 7*.
- ⁸³ AKDOLWD. *Quarterly Census of Employment and Wages*
- ⁸⁴ See Appendix A: Business and Resident Survey Results.
- ⁸⁵ Western Sustainable Agriculture Research and Education. *Building Agricultural Capacity in Alaska’s Kenai Peninsula One Row of Potatoes at a Time.* Retrieved from <https://western.sare.org/news/building-agricultural-capacity-in-alaskas-kenai-peninsula-one-row-of-potatoes-at-a-time/#:~:text=The%20Kenai%20Peninsula%20is%20the,markets%20or%20to%20local%20restaurants.>
- ⁸⁶ See Appendix A: Business and Resident Survey Results.
- ⁸⁷ AKDOLWD. *Alaska Housing Information*. Retrieved from <http://live.laborstats.alaska.gov/housing/index.cfm>
- ⁸⁸ FAA. *Airport Data*. Retrieved from https://www.faa.gov/airports/airport_safety/airportdata_5010/
- ⁸⁹ See Appendix A: Business and Resident Survey Results.
- ⁹⁰ See Appendix A: Business and Resident Survey Results.
- ⁹¹ Alaska Public Media. “Hilcorp gas pipeline springs another leak in Cook Inlet.” Published April 6, 2021. Retrieved from <https://www.alaskapublic.org/2021/04/06/hilcorp-gas-pipeline-springs-another-leak/>

-
- ⁹² Homer News. “Assembly unanimously approves construction of communications towers.” Published October 21, 2020. Retrieved from <https://www.homernews.com/news/assembly-unanimously-approves-construction-of-communications-towers/>
- ⁹³ Homer Alaska. *Port Expansion Project*. Retrieved from <https://www.cityofhomer-ak.gov/port/port-expansion-project>
- ⁹⁴ AMHS. 2016 and 2020 Annual Financial Reports. Retrieved from <http://dot.alaska.gov/amhs/reports.shtml>
- ⁹⁵ Peninsula Clarion. “Peninsula gets a new Ravn.” Retrieved from <https://www.peninsulaclarion.com/news/peninsula-gets-a-new-ravn/>
- ⁹⁶ Anchorage Daily News. “Gov. Dunleavy says state will reopen key Seward Highway maintenance station this winter.” Published December 19, 2020. Retrieved from <https://www.adn.com/alaska-news/2020/12/18/gov-dunleavy-says-state-will-reopen-key-seward-highway-maintenance-station-this-winter/>
- ⁹⁷ Homer News. “Cuts in governor’s budget would close DMV office in Homer.” Published January 13, 2021. Retrieved from <https://www.homernews.com/news/cuts-in-governors-budget-would-close-dmv-office-in-homer/>
- ⁹⁸ See Appendix A: Business and Resident Survey Results.
- ⁹⁹ See Appendix A: Business and Resident Survey Results
- ¹⁰⁰ Alaska Department of Education & Early Development. *Data Center*. Retrieved from <https://education.alaska.gov/data-center>
- ¹⁰¹ McKinley Research Group. *Alaska’s Early Childhood Education Data Dashboard*. Retrieved from <https://public.tableau.com/profile/mcdowell.group5295#!/vizhome/AlaskasEarlyCareandLearningDataDashboard2021DRAFT/AlaskasEarlyChildhoodEducationDataDashboard>
- ¹⁰² AKDOLWD. *Alaska Population Estimates: Components of Change, 2010-2020*.
- ¹⁰³ DOL&WD. *Quarterly Census of Employment and Wages*. Year-over-year, August 2019 to August 2020.
- ¹⁰⁴ Gross sales tax data provided by Kenai Peninsula Borough via public records request, dated February 19, 2021.
- ¹⁰⁵ Alaska Department of Health and Social Services. *Alaska COVID-19 Information Hub*. Retrieved from <https://alaska-coronavirus-vaccine-outreach-alaska-dhss.hub.arcgis.com/> on May 3, 2021.
- ¹⁰⁶ ADN. “After years of poor king salmon runs, renowned Kenai River sportfishing community adjusts.” Published July 7, 2018. Retrieved from <https://www.adn.com/features/business-economy/2018/07/07/pretty-devastating-after-years-of-poor-king-salmon-runs-renowned-kenai-river-sport-fishing-community-adjusts/>