



Tanana
Chiefs
Conference

Comprehensive Economic Development Strategy (CEDS) 2022-2026 & Economic Recovery Plan

Public Review Draft Appendices, March 2022

Appendix A: Detailed Background (expanded in March 2022 release)

Appendix B: CEDS Regional Survey Results

Appendix C: Outreach Materials

Appendix D: COVID-19 Recovery Resources (added in March 2022 release)

Appendix A: Detailed Background

Culture and History

Athabascan peoples have a long history in Interior Alaska dating at least back 12,000 years. Subsistence and traditional lifestyles are still widely practiced, with knowledges and methods handed down from each generation. Some Alaska Athabascan languages are still spoken and taught today; others are disappearing. Christian missionary and US federal government-sponsored boarding schools which operated over a century ago in Alaska have resulted in current primary home and public use of the English language by all Alaska Athabascan ethnic groups.

Total Athabascan ethnic groups and languages number above 40. Athabascan historical settlement areas extend from Alaska, northern and western Canada, the Pacific Northwest, California, and the Four Corners of Utah, Colorado, Arizona, and New Mexico. For a list of the major ethnic groups in the TCC region, see the callout box.

Today the TCC region has a mixed subsistence-cash economy, with many residents splitting time between subsistence and cash-based employment. Subsistence harvesting of salmon and other fish species, hunting of big game, and trapping of furbearing animals are all common and frequent activities in Interior Alaska. The Yukon River hosts five-species salmon runs, from Chinook, sockeye, coho, chum, and pink, while the Koyukuk River hosts all but sockeye. At least back to 2007, for both major rivers and five salmon species, runs have significantly declined, and in the past decade Chinook salmon runs have nearly crashed every season.

Athabascan Ethnic Groups in TCC Region

Gwich'in
Han
Upper Tanana
Tanacross
Lower Tanana
Koyukon
Upper Kuskokwim
Holikachuck
Deg Hit'an

List of TCC Villages, Tribes, Village Corporations by Subregion

List of TCC Villages and Tribes by Subregion

| TCC Subregion | Village | Tribe | Borough/ Census Area |
|-----------------|--------------------|------------------------------------|-------------------------|
| Upper Kuskokwim | McGrath | McGrath Native Village Council | Yukon-Koyukuk |
| | Medfra* | Medfra Traditional Council | Yukon-Koyukuk |
| | Nikolai | Edzeno' Native Village Council | Yukon-Koyukuk |
| | Takotna | Takotna Tribal Council | Yukon-Koyukuk |
| | Telida | Telida Native Village Council | Yukon-Koyukuk |
| Lower Yukon | Anvik | Anvik Tribal Council | Yukon-Koyukuk |
| | Grayling | Grayling IRA Council | Yukon-Koyukuk |
| | Holy Cross | Holy Cross Traditional Council | Yukon-Koyukuk |
| | Shageluk | Shageluk IRA Council | Yukon-Koyukuk |
| Upper Tanana | Dot Lake | Dot Lake Traditional Council | Southeast Fairbanks |
| | Eagle | Eagle IRA Council | Southeast Fairbanks |
| | Healy Lake | Healy Lake Traditional Council | Southeast Fairbanks |
| | Northway | Northway Traditional Council | Southeast Fairbanks |
| | Tanacross | Tanacross IRA Council | Southeast Fairbanks |
| | Tetlin | Tetlin IRA Council | Southeast Fairbanks |
| | Tok | Tok Native Association | Unorganized |
| Yukon Flats | Arctic Village | Arctic Village Traditional Council | Yukon-Koyukuk |
| | Beaver | Beaver Traditional Council | Yukon-Koyukuk |
| | Birch Creek | Denduu Gwich'in Tribal Council | Yukon-Koyukuk |
| | Canyon Village* | Canyon Village Tribal Council | Yukon-Koyukuk |
| | Chalkyitsik | Chalkyitsik Village Council | Yukon-Koyukuk |
| | Circle | Circle Tribal Council | Yukon-Koyukuk |
| | Fort Yukon | Native Village of Fort Yukon | Unorganized |
| | Venetie | Venetie Village Council | Yukon-Koyukuk |
| Yukon Koyukuk | Galena | Louden Tribal Council | Yukon-Koyukuk |
| | Huslia | Huslia Traditional Council | Yukon-Koyukuk |
| | Kaltag | Kaltag Tribal Council | Yukon-Koyukuk |
| | Koyukuk | Koyukuk Traditional Council | Yukon-Koyukuk |
| | Nulato | Nulato Tribal Council | Yukon-Koyukuk |
| | Ruby | Ruby Tribal Council | Yukon-Koyukuk |
| Yukon Tanana | Alatna | Alatna Village Council | Yukon-Koyukuk |
| | Allakaket | Allakaket Tribal Council | Yukon-Koyukuk |
| | Evansville | Evansville Tribal Council | Yukon-Koyukuk |
| | Hughes | Hughes Village Council | Yukon-Koyukuk |
| | Lake Minchumina* | Lake Minchumina Tribal Council | Yukon-Koyukuk |
| | Manley Hot Springs | MHS Traditional Council | Yukon-Koyukuk |
| | Minto | Minto Village Council | Yukon-Koyukuk |
| | Nenana | Nenana Native Village | Unorganized |

| | | | |
|--|-----------------|-----------------------------|----------------------|
| | Rampart | Rampart Village Council | Yukon-Koyukuk |
| | Stevens Village | Stevens Village IRA Council | Yukon-Koyukuk |
| | Tanana | Tanana Tribal Council | Yukon-Koyukuk |
| TCC | Fairbanks | Tanana Chiefs Conference | Fairbanks North Star |
| *Medfra, Canyon Village and Lake Minchumina do not have any year-round residents | | | |

List of Village Corporations in the TCC Region

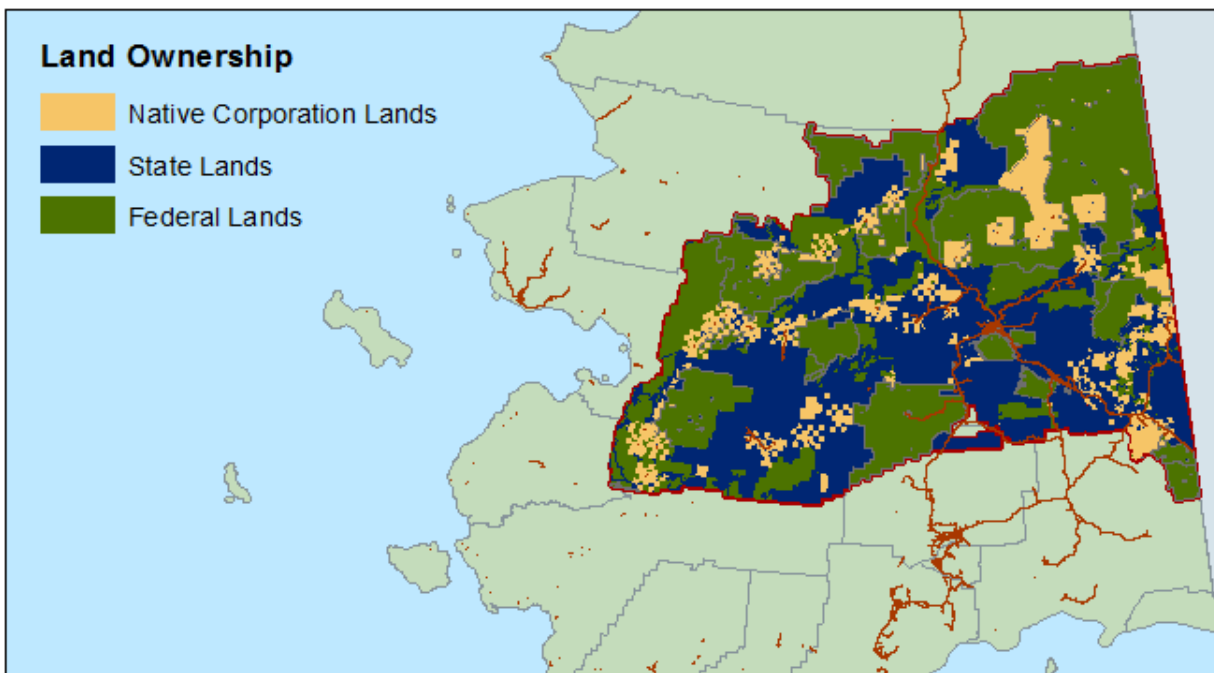
| Village Corporation | Village |
|--------------------------------|-----------------------------------|
| K'oyitl'ots'ina Corp. | Alatna, Allakaket, Hughes, Huslia |
| Deloy Ges, Inc | Anvik |
| Neets'ai Corporation | Arctic Village |
| Beaver Kwit'chin | Beaver |
| Tihteet'aii Inc. | Birch Creek |
| Chalkyitsik Native Corporation | Chalkyitsik |
| Danzhit Hanl'aii Corp. | Circle |
| Dot Lake Native Corp. | Dot Lake |
| Hungwitchin Corp | Eagle |
| Evansville Inc. | Evansville |
| Gwitchyaa Zhee Corp. | Fort Yukon |
| Gana-A' Yoo Ltd. | Galena, Kaltag, Nulato, Koyukuk |
| Hee-Yea-Lingde Corp. | Grayling |
| Mendas Cha-ag Native Corp | Healy Lake |
| Deloycheet Inc. | Holy Cross |
| Minchumina Natives Inc | Lake Minchumina |
| Bean Ridge | Manley Hot Springs |
| MTNT Ltd. | McGrath, Nikolai, Takotna, Telida |
| Medfra Native Council Inc. | Medfra |
| Seth-De-Ya-Ah Corp. | Minto |
| Toghotthele Corp. | Nenana |
| Northway Natives Inc. | Northway |
| Baan o yeel kon | Rampart |
| Dineega Corp. | Ruby |
| Zho-Tse Inc. | Shageluk |
| Dinyee Corp. | Stevens Village |
| Tanacross Inc. | Tanacross |
| Tozitna Ltd. | Tanana |
| Tok Native Association | Tok |
| Venetie Indian Reservation | Venetie |

Land Ownership Map

Land Ownership

The TCC region covers 235,000 square miles in Interior Alaska, an area equal to about 37 percent of the entire state and just slightly smaller than the state of Texas. Land ownership patterns in the region mirror the rest of the state. The federal government is the largest landowner, followed by the State of Alaska, and then, collectively, the largest private landowners – the Alaska Native Claims Settlement Act (ANCSA) Native Corporations.

TCC Regional Land Ownership Map



Map developed by PDC Engineers for the 2016 TCC CEDS with data from the Bureau of Land Management

The distribution of land ownership by acre for the region is as follows: ¹

- 63,212,373 acres are federally owned.
- 48,443,527 acres are owned by the State of Alaska.
- 7,922,107 acres are owned by Doyon, the Regional Native Corporation.
- 3,613,434 acres are owned by village corporations.
- 229,857 acres are private allotments.
- All subsurface areas below Doyon and village corporation land are owned by Doyon.²

¹ The data presented is derived from BLM's spatial data management system and is current as of December 2015.

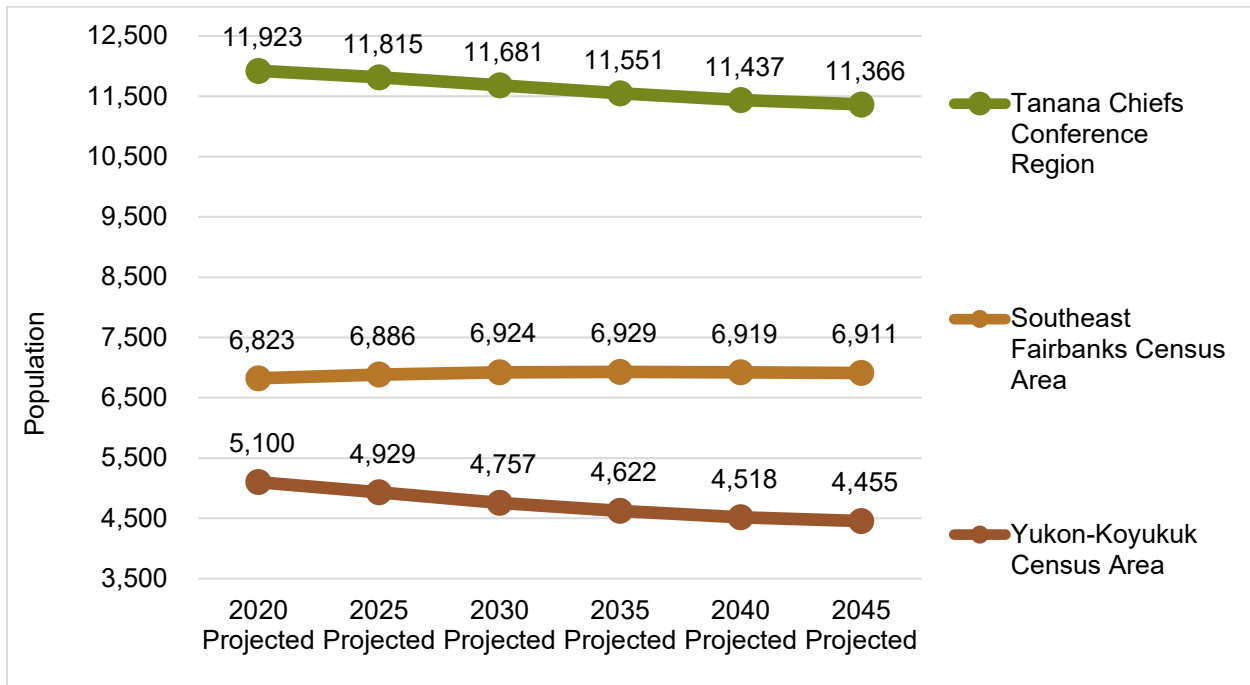
² The villages of Venetie, Arctic Village, and Tetlin are an exception to this rule. For more information, see the "Native Corporation Lands" section that follows.

Demographics

Population Projections

The population of the TCC region is expected to decline in the coming decades, though projected population change varies by census area (Figure 1). There are several components of change driving this decline: a slight projected decrease in the regional birth rate, a moderate increase in projected deaths (likely due to an aging population), and consistent trends of out-migration in the region.

Figure 1: Population Projections by Region, 2020 – 2045

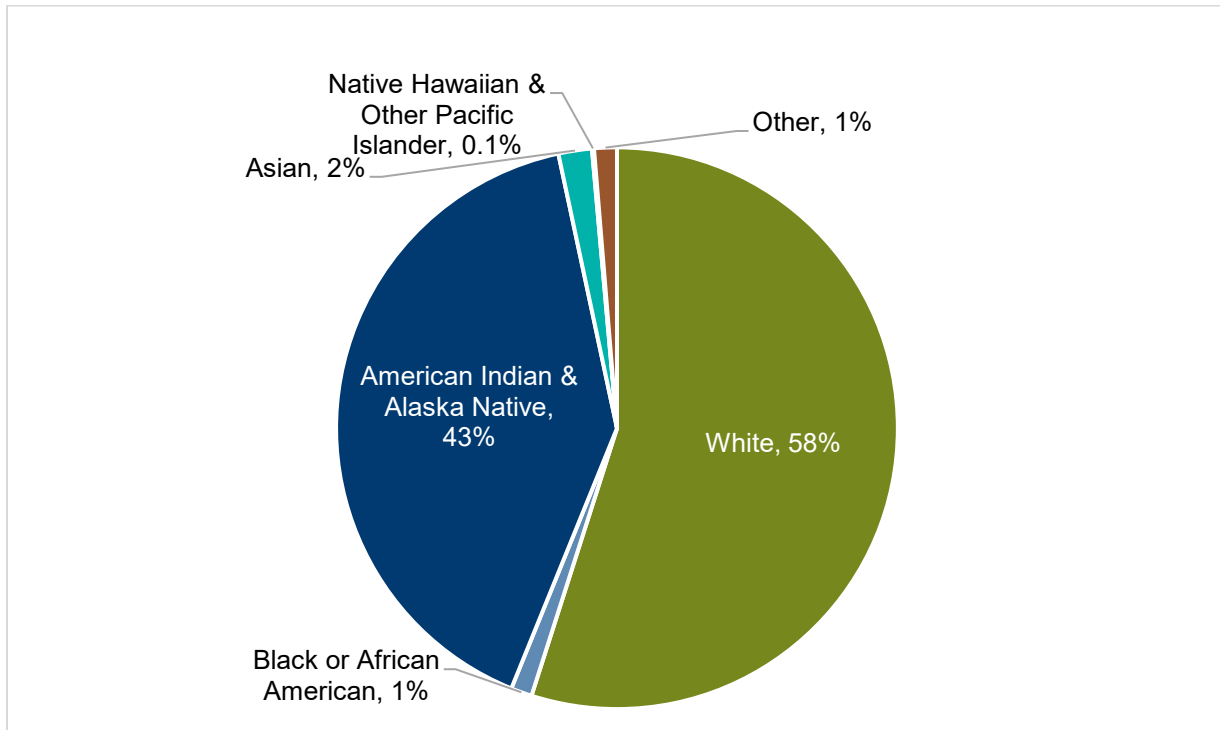


Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, “Population by Age and Sex, and Components of Change: 2019 to 2045,” 2019, Available at <https://live.laborstats.alaska.gov/pop/projections.html>

Racial Composition

The majority of the TCC region's population is white or Alaska Native (Figure 2). Fifty-eight percent of the population is white, 43 percent are American Indian or Alaska Native, 2 percent are Asian, 1 percent is Black or African American, and 1.1 percent identify with other races.

Figure 2: Racial Composition for the TCC Region, 2015-2019



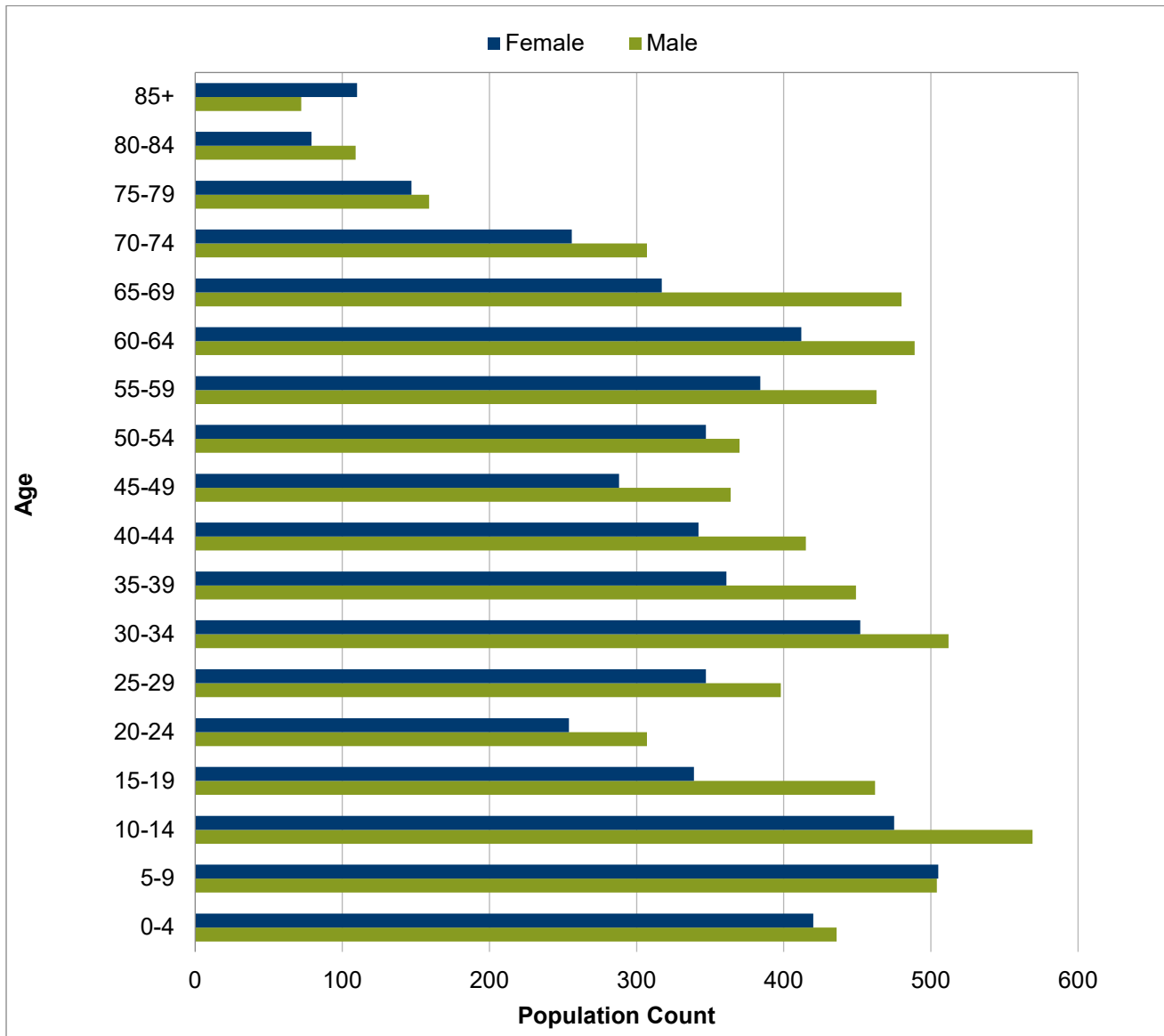
Note: This chart includes those of more than one race, so numbers exceed 100%.

Source: U.S. Census Bureau, "2015-2019 American Community Survey 5-Year Estimates," 2019 Available at <https://data.census.gov/cedsci/advanced>

Population by Age and Sex

The TCC region population by age and sex is shown in Figure 3. In terms of age, the number of residents in the 20-29 and 40-54 age groups is noticeably smaller than the number of residents in age groups immediately preceding them in age. These age groups make up an important component of the workforce in most communities and a reduction in that age group in the region could indicate that working-age residents are leaving for job and/or higher education opportunities outside the region.

Figure 3: Population by Age and Gender for the TCC Region, 2020

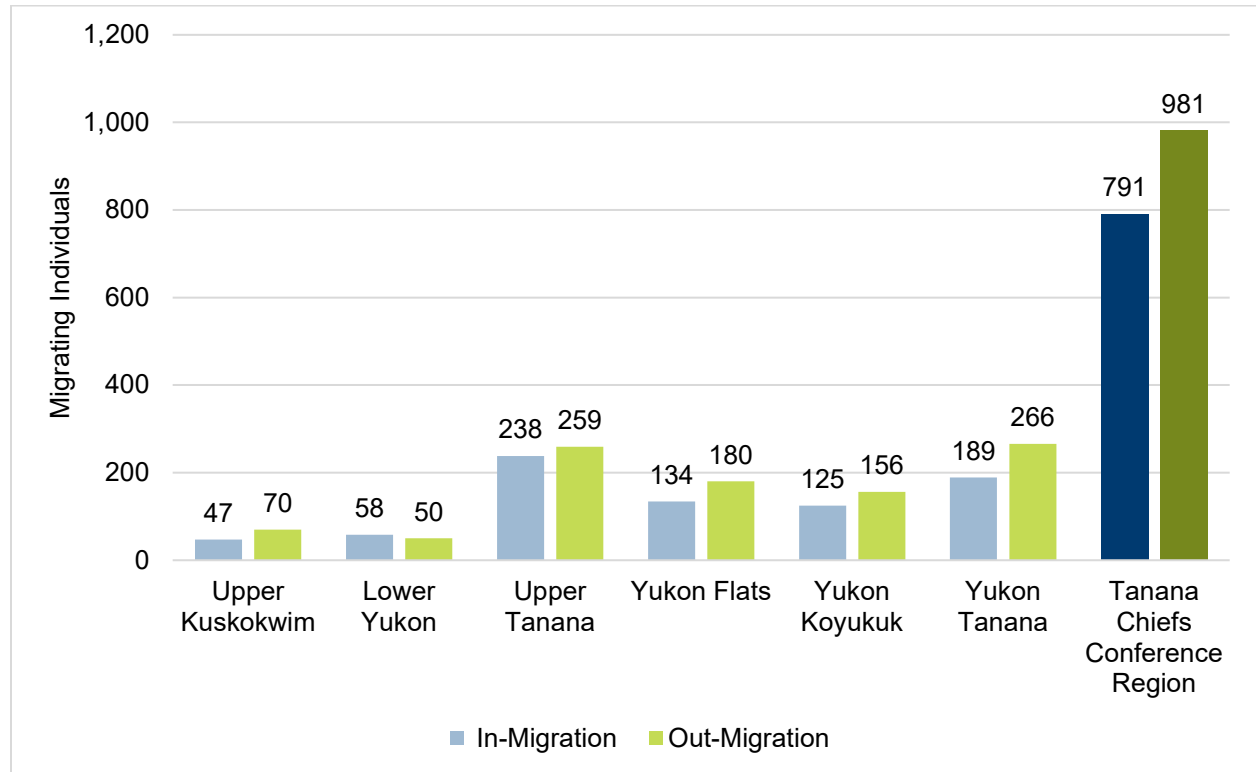


Source: Alaska Department of Labor and Workforce Development, “Economic Regions and Boroughs/Census Areas: Alaska Population by Age, Sex and Borough/Census Area” 2020, Available at <https://live.laborstats.alaska.gov/pop/index.cfm>

Migration

Figure 4 shows migration patterns in and out of the TCC region and subregion, based on Alaska Permanent Fund Dividend application data. There is a net migration out of the TCC region, though migration patterns vary among subregions.

Figure 4: Migration Patterns for TCC Subregions, 2019-2020



Source: Alaska Department of Labor and Workforce Development, “Change in Place of Residence for Alaska Permanent Fund Dividend (PFD) Applicants,” 2020, Available at <https://live.laborstats.alaska.gov/pop/migration.html>

Economy and Business

Industry Clusters

Location quotient data can tell us which industries are more specialized in a specific regional economy and help us understand the unique characteristics of a region. Location quotient data for the TCC region is shown in

Figure 5. Industries with higher concentration are shaded green; those with lower concentrations are shaded red. The concentration of employment in the natural resources and mining industry among TCC residents is approximately 19 times that of the United States as a whole.

Figure 5: Location Quotients for the TCC Region, 2020

| Industry | Annual Establishments | Annual Average Employment | Total Annual Wages | Employment Location Quotient | Wages Location Quotient |
|--------------------------------------|-----------------------|---------------------------|--------------------|------------------------------|-------------------------|
| Natural resources and mining | 17 | 587 | \$76,314,571 | 18.5 | 33.3 |
| Leisure and hospitality | 43 | 202 | \$5,534,818 | 6.9 | 11.7 |
| Public administration | 65 | 1,105 | \$52,433,868 | 6.0 | 4.4 |
| Education and health services | 42 | 1,313 | \$68,921,205 | 2.0 | 2.2 |
| Trade, transportation, and utilities | 132 | 613 | \$29,364,951 | 1.8 | 1.5 |
| Other services | 19 | 124 | \$5,545,843 | 1.0 | 1.5 |
| Construction | 27 | 133 | \$11,944,171 | 0.6 | 0.9 |
| Information | 14 | 28 | \$1,131,502 | 0.3 | 0.1 |
| Professional and business services | 42 | 183 | \$10,796,232 | 0.3 | 0.2 |
| Manufacturing | 7 | 35 | \$1,171,964 | 0.2 | 0.1 |
| Financial activities | 7 | 22 | \$1,030,320 | 0.2 | 0.1 |
| Total Industries | 510 | 4,572 | 279348563 | 1.0 | 1.0 |

Source: Bureau of Labor Statistics, “Quarterly Census of Employment and Wages, NAICS Sectors, Annual Averages, All establishment sizes,” 2020, Available at https://data.bls.gov/cew/apps/data_views/data_views.htm#tab=Tables

***Note:** Location quotients compare the concentration of an industry within a specific area to the concentration of that industry nationwide. Industries in shades of red have a low concentration compared with the rest of the nation, while those in shades of green have a higher concentration compared to the rest of the nation.

Businesses

Figure 6 shows percent change in annual private business employment in 2019 and 2020. The TCC region, Alaska, and the Fairbanks North Star Borough all experienced declines ranging from 2 to 11 percent in average private business employment between 2019 and 2020.

Figure 6: Percent Change in Annual Average Private Business Employment, 2019-2020

| Geography | 2019 | | 2020 | | 2019-2020 Percent Change in Private Business Employment |
|--|--------------------------|-------------------------|--------------------------|-------------------------|---|
| | Total Private Businesses | % of Workforce Employed | Total Private Businesses | % of Workforce Employed | |
| Alaska | 20,162 | 77% | 20,657 | 76% | -10% |
| Fairbanks North Star Borough | 2,162 | 74% | 2,166 | 73% | -8% |
| Tanana Chiefs Conference | 309 | 51% | 309 | 51% | -2% |
| Southeast Fairbanks Census Area | 189 | 68% | 188 | 68% | 2% |
| Yukon Koyukuk Census Area | 120 | 32% | 121 | 31% | -11% |

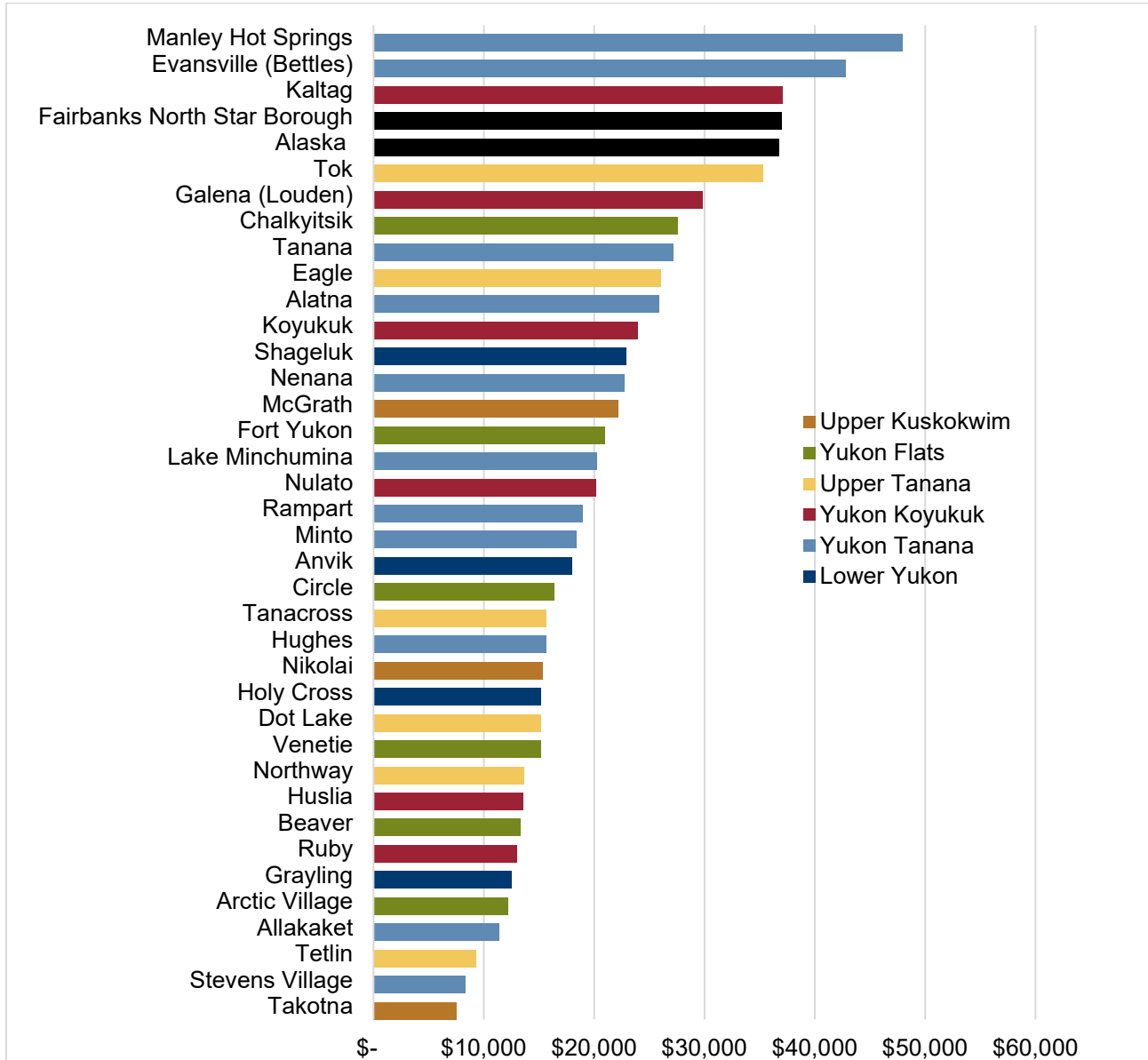
Source: Bureau of Labor Statistics, “Quarterly Census of Employment and Wages,” 2020, Available at https://data.bls.gov/cew/apps/data_views/data_views.htm#tab=Tables

Income

Per capita income varies across the TCC region (Figure 7). The per capita income for the majority of TCC communities is less than that of the Fairbanks North Star Borough and the state average.

Most communities in the region had a per capita income of less than \$30,000 in 2019, while three of the region’s communities made less than \$10,000 per capita. Only two communities (Manley Hot Springs and Evansville/Bettles) made over \$40,000 per capita in 2019.

Figure 7: Per Capita Income by Community and Subregion, 2015-2019



Note: Dataset timeframe does not reflect pandemic conditions.

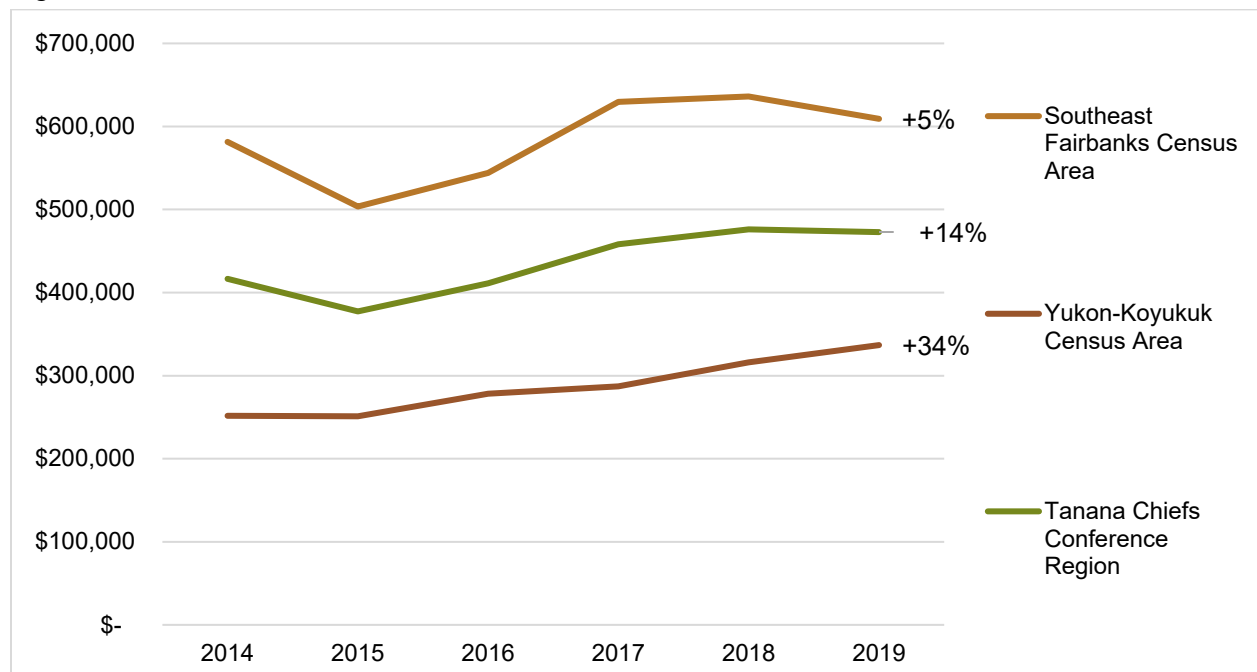
Source: U.S. Census Bureau, “American Community Survey Estimates Detailed Tables,” 2015-2019, Available at <https://data.census.gov/cedsci/all?t=Income%20and%20Poverty>

Gross Domestic Product

According to the Bureau of Economic Analysis, gross domestic product (GDP) by county and metropolitan area is the “measure of the market value of all final goods and services produced within an area in a particular period of time.” In concept, an industry's GDP by county and metropolitan area, referred to as its “value added,” is equivalent to its gross output (sales or receipts and other operating income, commodity taxes, and inventory change), minus its intermediate inputs (consumption of goods and services purchased from other U.S. industries or imported). GDP by county and metropolitan area is the local area counterpart of the nation's GDP, BEA's featured measure of U.S. production. GDP for the TCC region is shown in Figure 8. Since 2015, the TCC region has experienced positive change in current-dollar GDP, though all regions have consistently seen a drop in annual growth in 2017-18 and 2018-19. Notable trends include:

- Between 2014 and 2019, both the Southeast Fairbanks Census Area and Yukon -Koyukuk Census Area experienced GDP growth.
- The TCC region experienced a higher percent increase in GDP between 2014 and 2019 (14 percent) compared with Alaska and the Fairbanks North Star Borough, which experienced a 2 percent decrease and 8 percent increase respectively during this time span.

Figure 8: Annual Current-dollar GDP, 2015-2019



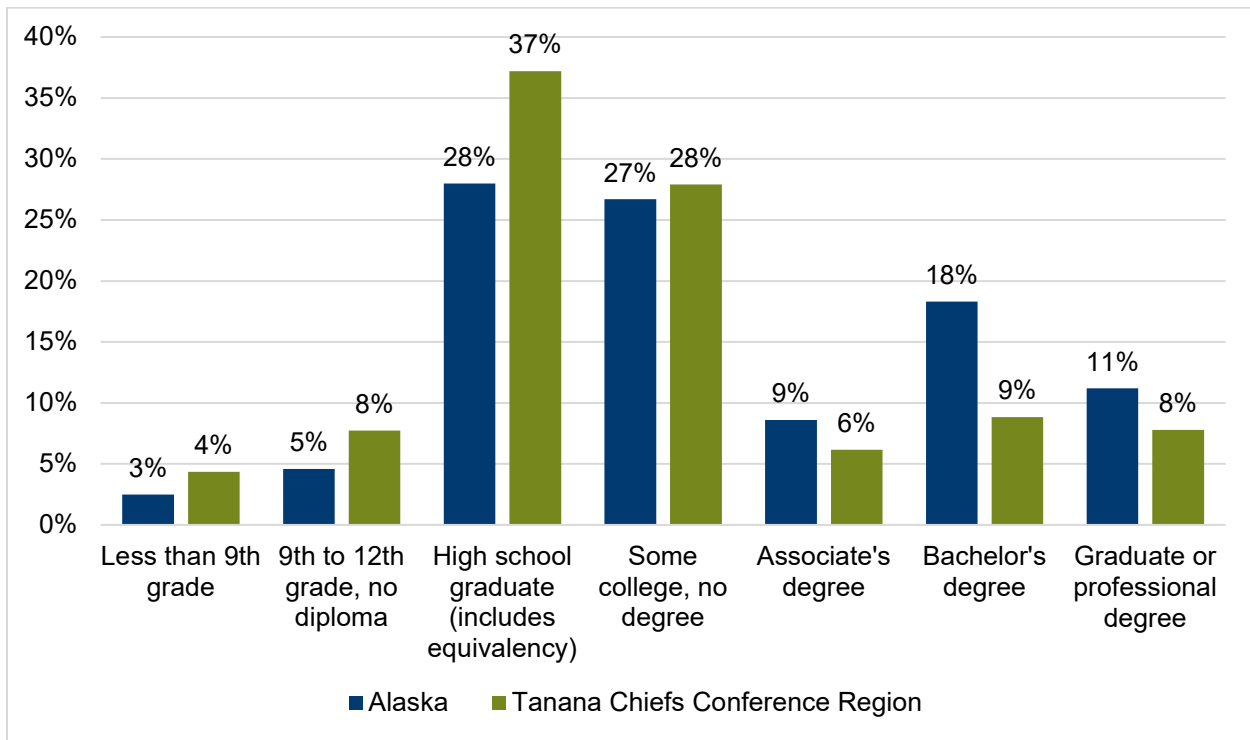
Note: Dataset timeframe does not reflect pandemic conditions.

Source: Bureau of Economic Analysis, “CAGDP1 Gross Domestic Product (GDP) summary by county and metropolitan area,” 2019, Available at <https://www.bea.gov/data/gdp/gdp-county-metro-and-other-areas>

Educational Attainment

Figure 9 shows educational attainment rates for Alaska and the TCC region. Most of the adult population in the TCC region has a high school diploma and many have at least some college. Educational attainment in the region is lower than the state average, with a larger proportion of the TCC population not completing high school and a smaller proportion having earned a bachelor's degree or higher when compared with the state average.

Figure 9: Educational Attainment by Region, 2015-2019



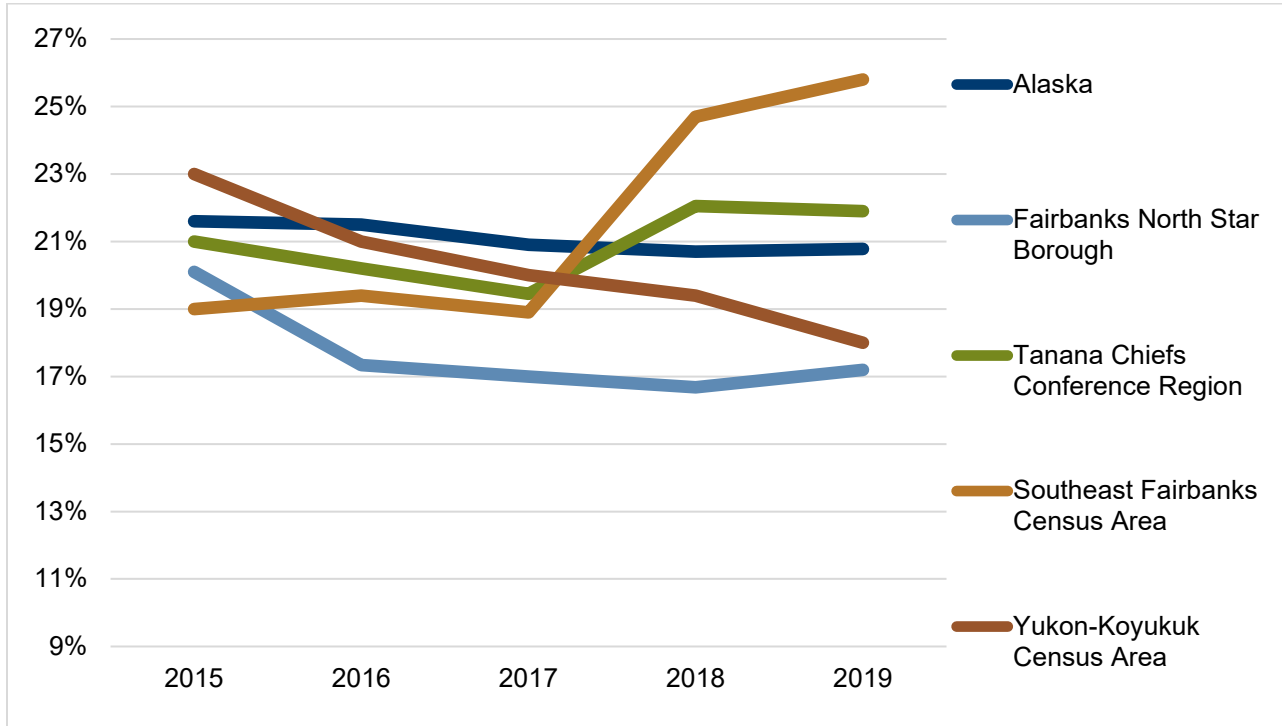
Note: Graph includes only traditional collegiate programs; many vocational education programs and related certifications may not be reflected. Dataset timeframe does not reflect pandemic conditions.

Source: U.S. Census Bureau, "2015-2019 American Community Survey Estimates Detailed Tables," 2015-2019, Available at <https://data.census.gov/cedsci/advanced>

Resident vs. Nonresident Workers

Figure 10 shows the percentage of nonresident workers in the TCC region and other comparative Alaska regions. The TCC region saw a 1 percent increase in private sector nonresident workers between 2015 and 2019, with all this growth attributed to the Southeast Fairbanks Census Area.

Figure 10: Nonresident Workers by Area (private sector), 2015-2019



Note: Dataset timeframe does not reflect pandemic conditions.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, “Nonresidents Working in Alaska” publications, 2015-2019, Available at <https://live.laborstats.alaska.gov/reshire/index.cfm>

Wages

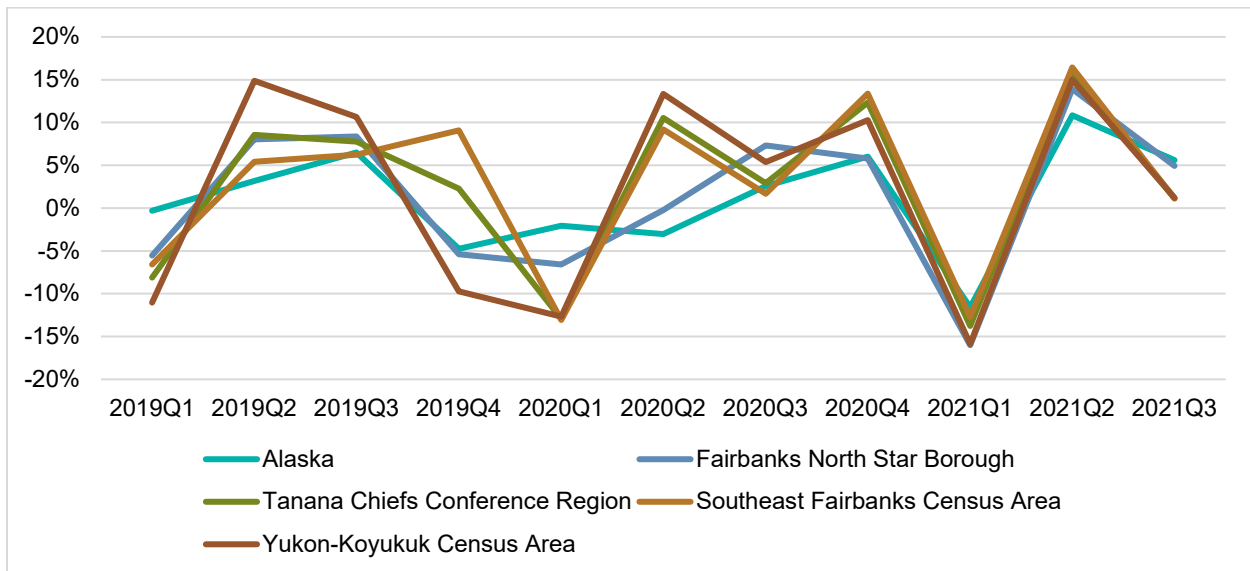
Wages across these regions are influenced by seasonal employment (Figure 11). As shown in Figure 12, total industry wages in the TCC region experienced fluctuations similar to those of Alaska and the Fairbanks North Star Borough, with the sharpest declines occurring in the first quarter of every year (wintertime). 2020 total wages for the TCC region overall did not experience declines when compared with the same quarters of 2019, though this varies by census area within the region.

Figure 11: Percent Change in Total Quarterly Wages (all industries), 2019-2020

| Geography | 2019Q1-2020Q1 Percent Change | 2019Q2-2020Q2 Percent Change | 2019Q3-2020Q3 Percent Change | 2019Q4-2020Q4 Percent Change |
|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Alaska | 2% | -4% | -7% | 3% |
| Fairbanks North Star Borough | 3% | -4% | -5% | 6% |
| Tanana Chiefs Conference Region | 4% | 6% | 1% | 11% |
| Southeast Fairbanks Census Area | 6% | 10% | 5% | 9% |
| Yukon Koyukuk Census Area | 0% | -1% | -6% | 15% |

Source: Alaska Department of Labor and Workforce Development, “Current Quarterly Census of Employment and Wages,” 2021, Available at <https://live.laborstats.alaska.gov/qcew/index.html>

Figure 12: Percent Change from Previous Quarter in Total Industry Wages, 2019Q1 - 2021Q3

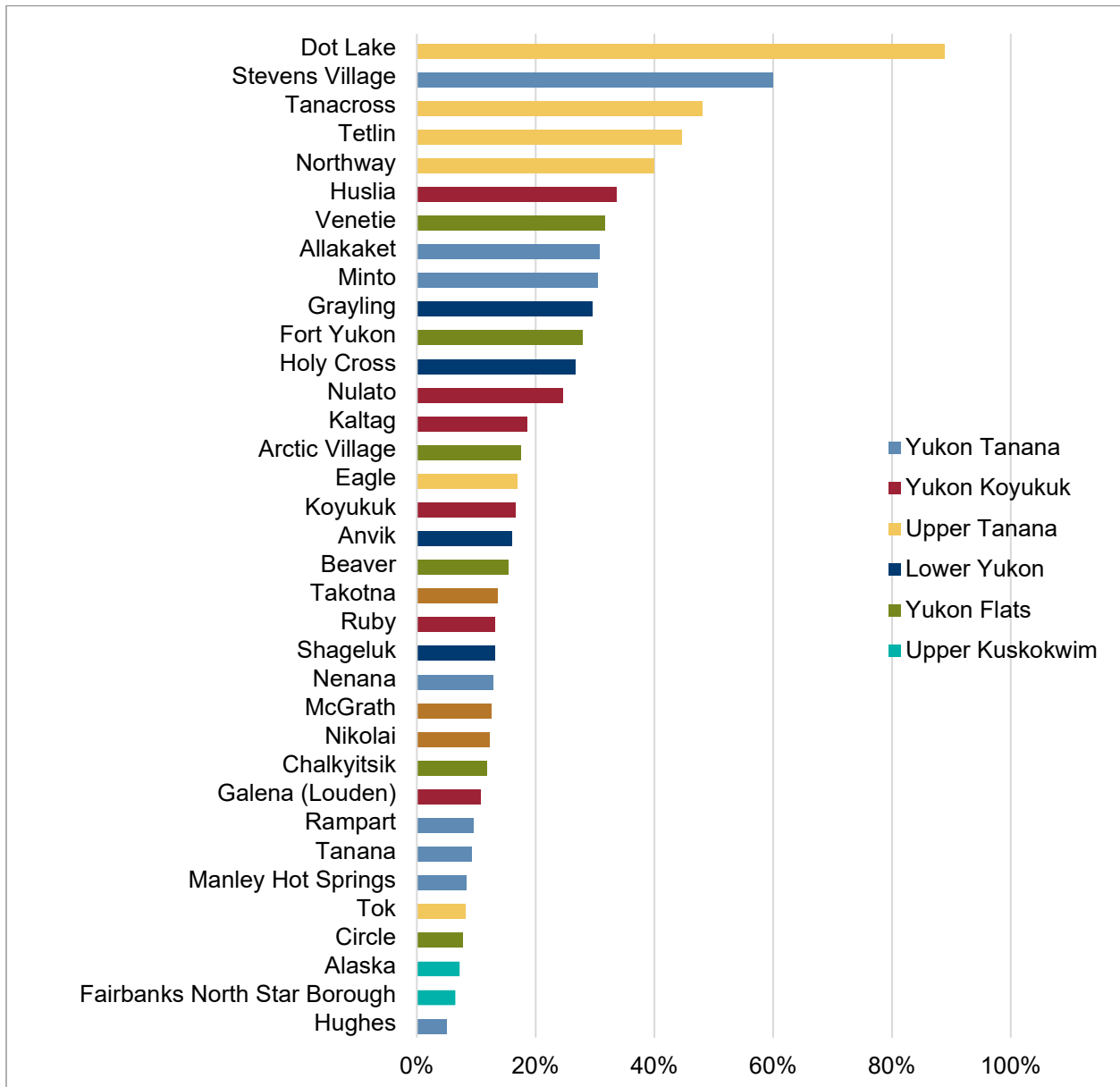


Source: Alaska Department of Labor and Workforce Development, “Current Quarterly Census of Employment and Wages,” 2021, Available at <https://live.laborstats.alaska.gov/qcew/index.html>

Unemployment

Unemployment rates vary between communities in the TCC region and between each of its subregions (Figure 13). Between 2015 and 2019, the communities of Tetlin, Tanacross, Stevens Village, and Dot Lake experienced the highest unemployment rates, with over 40 percent of their respective populations claiming unemployment, while the communities of Hughes, Circle, and Tok experienced the lowest unemployment rates, with less than 10 percent of their respective populations claiming unemployment.

Figure 13: Unemployment Rate by Community and Region, 2015-2019



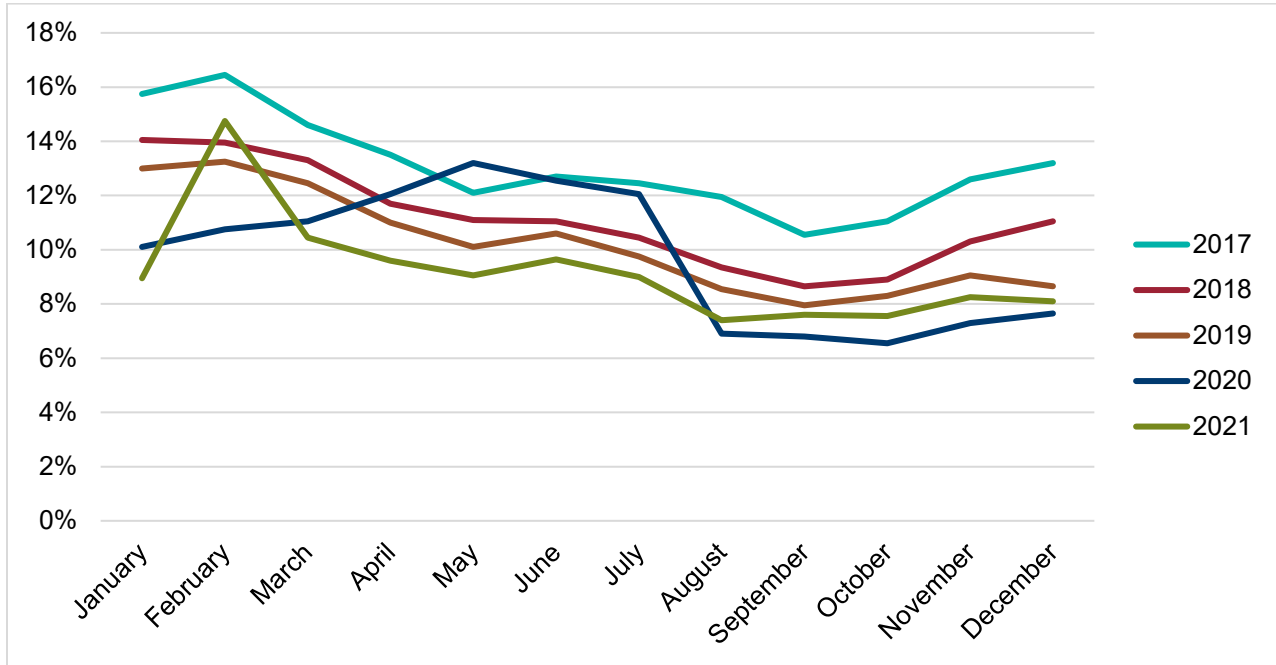
Note: Dataset timeframe does not reflect pandemic conditions.

Source: U.S. Census Bureau, “2015-2019 American Community Survey Estimates Detailed Tables,” 2019, Available at <https://data.census.gov/cedsci/advanced>

Seasonal Unemployment

Employment opportunities in the TCC region fluctuate throughout the year (Figure 14). Unemployment rates tend to be higher in the winter and early spring and lower in the summer and fall.

Figure 14: Seasonal Unemployment Rates in the TCC Region, 2017-2021

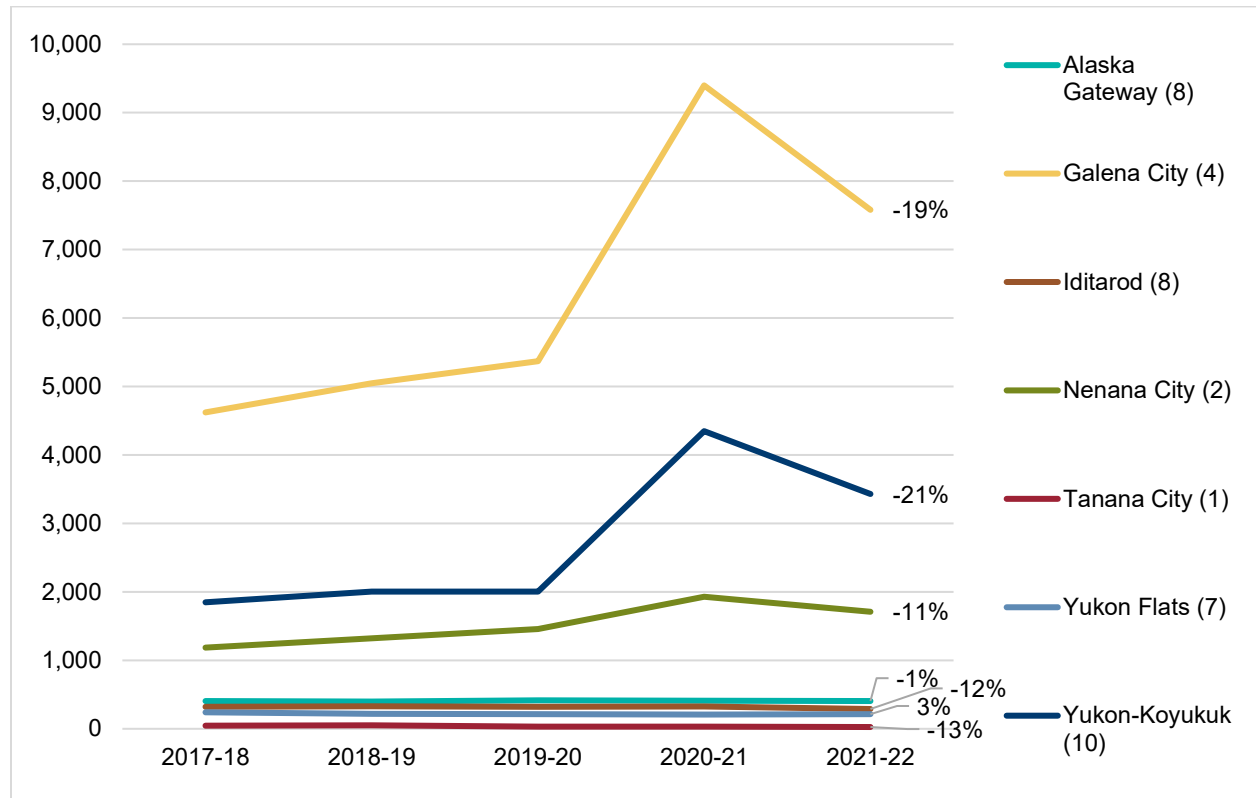


Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section, "Unemployment Rates by Area Not Seasonally Adjusted," 2017-2020, Available at <https://live.laborstats.alaska.gov/labforce/index.html>

School District Enrollment

Figure 15 shows pre-K through 12th grade enrollment by school district from 2017 through the 2021-2022 school year. The Galena City, Yukon-Koyukuk, and Nenana City school districts experienced a period of rapid growth in Pre-K through 12th grade enrollment between the 2019-2020 and 2020-2021 school year due to increased enrollment in their respective district’s homeschool program, though all school districts experienced a decline in enrollment in the following school year.

Figure 15: Pre-K Through 12th Grade Enrollment by School District, 2017-2022



Source: Alaska Department of Education and Early Development (DEED) Data Center, Statistics & Reports, “District Enrollment Totals for all Alaskan Public School Districts,” 2022, Available at <https://education.alaska.gov/data-center>

Infrastructure Summary

Transportation

History

The discovery of gold and subsequent gold rush in the late 1800s and early 1900s introduced a United States military presence into Interior Alaska, including new transportation routes. By 1901, a military road was available between Valdez and Eagle. The construction of the Alaska Railroad route between Fairbanks, Nenana and Seward began in 1915 and was completed in 1923. During the 1920s, airfield construction became popular throughout Alaska. World War II brought additional transportation upgrades, including the 1,522-mile Alaska Highway from Dawson Creek, British Columbia to Fairbanks.³

Overview of Existing Transportation Infrastructure

The TCC region contains approximately 2,500 miles of roads, including the City of Fairbanks. About 750 of these miles are in the Fairbanks North Star Borough. According to the TCC Transportation department, there are 1,603 miles in the TCC region included in the Indian Reservation Roads program.

Remote villages primarily depend on air transport for essential goods and services such as diesel fuel, mail, food items, medicine. Services such as stores, medical facilities, and more remain in hub communities. The 42 communities in the TCC region are served by 37 runways. Runways in the region are usually surfaced with packed dirt or gravel. The length of runways is the main factor that determines the size of aircraft that can land or take off.

³ Summarized from the Alaska Department of Transportation and Public Facilities' "Interior Alaska Transportation Plan." November 2010. Available at: <http://dot.alaska.gov/nreg/studies/iatp/files/chapter-2.pdf>

Figure 16 shows the list of TCC communities and the primary mode(s) of transportation used to access each community. Ten communities are accessible by road. In general, these communities have the lowest transportation costs when compared with communities accessed via air and barge. Seventeen communities are accessed by air. These communities struggle with increasing air travel costs and limited air carrier service options. Nineteen TCC communities are serviced by barge. In these communities, barge service can be limited by ice in the winter.

Figure 16: Primary Modes of Transportation per TCC Community

| 10 Road Communities | 17 Air Service Communities | 19 Barge Communities |
|---|---|---|
| <ul style="list-style-type: none"> • Nenana • Minto • Healy Lake (accessible by road in winter and road/boat in summer) • Dot Lake • Rampart (road close to the community and then boat service is available) • Tanacross • Tok • Tetlin • Northway • Eagle (road closed in winter) • Circle (road closed in winter) | <ul style="list-style-type: none"> • Shageluk • Nikolai • Telida • Takotna • Huslia • Hughes • Alatna (via Allakaket) • Allakaket • Evansville (at times ice road access via haul road) • Venetie • Arctic Village • Canyon Village (via Ft. Yukon) • Chalkyitsik • Birch Creek • Beaver • McGrath • Rampart | <ul style="list-style-type: none"> • Holy Cross • Anvik • Grayling • Beaver (varies) • Hughes (varies) • Huslia (varies) • Ruby • Koyukuk • McGrath • Kaltag • Nenana (hub for cargo) • Nulato • Koyukuk • Galena • Manley • Tanana • Rampart • Stevens Village • Fort Yukon |

Developed for the 2016 TCC CEDS with input from TCC staff

Transportation Financing

The State of Alaska relies heavily on federal funds to pay for capital transportation projects. State funding is used primarily for maintenance and as required match funds. The Federal Highway Administration (FHWA) also provides funding for Tribal transportation programs. Tribes can either receive their transportation funding directly through FHWA or can contract with the Bureau of Indian Affairs to help manage the Tribal FHWA funds.⁴

The 2019 TCC Regional Transportation Strategy provides an overview of the two types of transportation maintenance funding available to Tribes.

- **Tribal Transportation Program (TTP)** funding is from a Tribe’s annual TTP funds (which are received as Tribal Shares) that the Tribe uses for transportation facility maintenance. TTP funds can be used for maintenance only on facilities identified in the National Tribal Transportation Facility Inventory (NTTFI).
- **The BIA Transportation Facility Maintenance Program** is separate funding that is provided by Congress for the BIA Transportation Facility Maintenance Program in the annual Department of the Interior appropriations acts. Tribes may use these funds for maintaining BIA Road Systems and BIA transportation facilities. There is only one BIA maintained road in the State of Alaska.

⁴ Summarized from the Alaska Department of Transportation and Public Facilities’ Interior Alaska Transportation Plan. November 2010. <http://dot.alaska.gov/nreg/studies/iatp/files/chapter-2.pdf/>

Proposed Transportation Projects

The following are new transportation projects being considered in Interior Alaska.

- **Alberta to Alaska (A2A) Access Road to the State Highway System**

The Alberta to Alaska railway is designed to potentially be a central economic route for the Northwest region within North America. The addition of this 1,600-mile railway from northern Alberta to Alaska will expand important transportation connections between Canada and the United States. The project has gained a Presidential Border Crossing Permit and is currently seeking regulatory approvals.⁵

- **Ambler Road**

According to the 2019 TCC Regional Transportation Strategy, the Alaska Industrial Development and Export Authority (AIDEA) submitted an application in 2016 for the Ambler Access Project connecting the Dalton Highway to the Ambler Mining District. Government agencies such as the Alaska Department of Transportation and Public Facilities, the U.S. National Park Service, and the Bureau of Land Management are required to consult with Tribes on environmental impact regulations and are doing so.⁶ In February 2022, the Biden administration filed documents in a federal court seeking to revisit the issuance of a federal right-of-way permit for the road to AIDEA, which was approved under the Trump administration.⁷

TCC is firmly opposed to this road, and in 2014 the TCC full Board of Directors passed a resolution 54-14 opposing the Ambler Road project and directing TCC employees to monitor the State of Alaska's development proposals and activities.

- **Road to Rampart**

The State of Alaska began construction on the 30-mile stretch from Eureka to Rampart Village. The funding was depleted after finishing 17 miles, bringing the road to the Granite Creek crossing. Currently, the road is only operable as an ice road during the winter months. The Native Village of Rampart has been maintaining the road during the winter months as a secure route to the Alaska Highway system in case of emergencies. As of 2019, the Tribe was actively seeking funding for the remaining 13.9 miles from Granite Creek to the Yukon River.⁸

- **Yukon Kuskokwim Corridor Plan**

The YK Freight Corridor Plan has been completed. The project team found that due to the current economic climate, fuel supply chain logistics, and other factors, this project would not currently succeed in public finance project selection processes and is therefore unlikely to proceed into the NEPA/design phase in the short term. In the future, the Freight Corridor may still be viable if barge operators

⁵ Alaska To Alberta Rail, "About A2A," 2021, Available at <https://a2arail.com/about-a2a/>

⁶ Tanana Chiefs Conference, "Regional Transportation Strategy for Rural Villages Located in Alaska's Interior," July 2019, Available at <https://www.tananachiefs.org/wp-content/uploads/2020/10/FINAL-TCC-Transportation-Strategy-July-2019.pdf>

⁷ Anchorage Daily News, "Biden administration moves to review Ambler Road plans." February 2022. Available at <https://www.adn.com/alaska-news/rural-alaska/2022/02/22/biden-administration-to-review-trump-era-decision-advancing-ambler-road/>

⁸ Tanana Chiefs Conference, "Regional Transportation Strategy for Rural Villages Located in Alaska's Interior," July 2019, Available at <https://www.tananachiefs.org/wp-content/uploads/2020/10/FINAL-TCC-Transportation-Strategy-July-2019.pdf>

determine the fuel price differentials between the two rivers warrant overland transfers, or an Alaska natural gas pipeline project creates pricing opportunities for western Alaska freight markets.⁹

- **Yukon River Reconnaissance Study**

ADOT&PF is also conducting a Yukon River Reconnaissance Study. The study is evaluating the Dalton Highway Yukon River Bridge to identify current conditions and future transportation needs in the area.¹⁰

Energy

Energy Use in the Region

The 2018 Alaska Housing Assessment profiled the residential energy use and costs in the Doyon region, which includes the Fairbanks North Star Borough and the TCC region. The Doyon region has the highest annual home energy costs in the state (approximately 1.3 times the statewide average and 2.3 times the national average). Highlights from the assessment include:¹¹

- **Average Home Energy Use:** The average home in the Doyon region uses 237 million BTUs of energy annually, compared to the statewide average of 227 million BTUs.
- **Affordability:** Approximately 13,939 (35 percent) of households in the Doyon region are cost-burdened, compared with 31 percent statewide. Cost-burdened households are defined as households spending more than 30 percent of total household income on housing costs, including rent, utilities, and energy.
- **Retrofit Needs:** Approximately 26 percent of occupied homes in the region are drafty, and an additional 58 percent face the opposite issue of being relatively airtight but lacking a mechanical ventilation system. This is the highest percentage of homes that are airtight and without mechanical ventilation in Alaska and puts these homes at risk for moisture-related and indoor-air-quality-related problems. Approximately 41 percent of all homes in the Doyon region were built before 1980 and have not been retrofitted.

For most communities in the Interior, there are two sets of electric rates: the residential electric rate set by the utility based on cost of electricity production and profit share (if applicable) and the effective rate of electricity, which is a reduced rate paid by residents in communities with utilities enrolled in the Alaska Energy Authority (AEA)'s Power Cost Equalization (PCE) Program. In addition to residential homes, the PCE program subsidizes the rates of eligible Tribal and municipal community buildings and public facilities that are not operated for profit. While some parts of Alaska have made significant advances in the use of renewables, natural gas, and other energy alternatives, the TCC region still relies almost exclusively on diesel for electric generation.¹²

Fuel costs vary throughout the region. According to the fuel price survey conducted by the Alaska Division of Community and Regional Affairs, July 2021 gas prices ranged from a low of \$4.25 a gallon in Minto to

⁹ United States Department of Commerce, Economic Development Administration, "Yukon-Kuskokwim Region Comprehensive Economic Development Strategy 2018 – 2023," 2018, Available at http://www.avcp.org/wp-content/uploads/2020/03/Y-K-CEDS-2018-2023_FINAL_7-31-18_FULL.pdf

¹⁰ Alaska Department of Transportation & Public Facilities, Northern Region, "Yukon River Reconnaissance Study," Available at <https://dot.alaska.gov/nreg/yukonriverrecon/>

¹¹ Alaska Housing Finance Corporation, "2018 Alaska Housing Assessment," Available at <https://www.ahfc.us/pros/energy/alaska-housing-assessment/2018-housing-assessment>

\$8.00 a gallon in Arctic Village and Hughes. Heating oil prices are also variable across communities. According to the same fuel price survey, heating oil prices ranged from \$2.69 per gallon in Circle to \$12.00 per gallon in Arctic Village.¹³

The Interior Alaska Regional Energy Plan

TCC completed Phase II of the Interior Alaska Regional Energy Plan in July 2015. The Interior Alaska Regional Energy Plan is part of a statewide effort led by the Alaska Energy Authority, with the intention of identifying energy projects that have the potential to reduce long-term energy cost and fossil fuel dependence.¹⁴ The Phase II report identified six focus areas, each with defined goals and actions, and priority projects for each community and subregion.

Renewable Energy

The TCC region has renewable energy potential, ranging from biofuels (wood), solar, hydroelectric from river currents, geothermal and wind. Technology is advancing and it is becoming easier to integrate renewable energy into existing electric grids.¹⁵ With TCC's Tribal communities paying some of the highest energy costs in the nation, the TCC Energy Program works in partnership with Tribes to develop projects that can reduce the burden of high energy costs and encourage Tribal energy sovereignty.¹⁶ Past projects have included community-scale solar projects, high-efficiency building designs, diesel generator replacements and communitywide energy efficiency projects.

Water, Sewer and Solid Waste

In 2017, the United States Arctic Research Commission Alaska Rural Water and Sanitation Working Group prepared a report estimating that approximately 22 percent of rural Alaskan households lack in-home water and sewer service.¹⁷ The report also identified challenges to providing clean water and sanitation, including:

- High cost of building and maintaining rural sanitation facilities.
- Climate change impacts on water and wastewater infrastructure, making upgrades necessary.
- Lack of adequate funding to serve remaining homes or to make the improvements required for healthy living.
- Lack of necessary technologies to address health problems associated with water and sewer system deficiencies.

Villages can seek funding for water and sewer infrastructure projects through the State of Alaska Village Safe Water and the Indian Health Service Sanitation Deficiency System funding programs. Those with only a

¹³ Alaska Division of Community and Regional Affairs, "Fuel Price Survey," 2021, Available at <https://www.commerce.alaska.gov/web/dcra/researchanalysis/fuelpricesurvey.aspx>

¹⁴ Alaska Energy Authority, "Phase II Interior Alaska Regional Energy Plan," 2015, Available at <https://www.akenergyauthority.org/What-We-Do/Energy-Planning-Project-Development/Regional-Energy-Plans>

¹⁵ Tanana Chiefs Conference, "Energy Conservation," 2021, Available at <https://www.tananachiefs.org/services/energy-conservation/>

¹⁶ Tanana Chiefs Conference, "Energy Conservation," 2021, Available at <https://www.tananachiefs.org/services/energy-conservation/>

¹⁷ United States Arctic Research Commission, "Alaska Rural Water and Sanitation Working Group," 2017, Available at https://www.arctic.gov/uploads/assets/arswg_flyer_3-30-17.pdf

washeteria are considered “unserved” because they do not have piped water to homes.¹⁸ According to the State of Alaska, 13 communities in the TCC region are categorized as unserved communities: Alatna, Allakaket, Birch Creek, Chalkyitsik, Circle, Koyukuk, Ruby, Shageluk, Stevens Village, Takotna, Arctic Village, Eagle, and Venetie.

As a result of high construction costs, many rural residents haul water from a central (treated) water point, often a washeteria/laundromat. About 83 percent of Alaska’s public water systems and 90 percent of private wells rely on ground water.¹⁹ Alaska has a large quantity of groundwater (water that is found under the surface of the ground). Generally, this water requires less treatment than surface water. Groundwater is less available in northern parts of Alaska where the permafrost runs deep. In those cases, public water systems make frequent use of streams, rivers, lakes, and rainwater.

Recently, federal and State of Alaska funding for Village Safe Water (VSW) capital projects has declined severely while the estimated cost of addressing rural water and sewer needs has risen. The State of Alaska has committed funds to stimulate interest and encourage the private sector research and develop of new and cost-effective ways to deliver water and sewer services in rural Alaska. In 2013, the state initiated a multi-year process called the Alaska Water and Sewer Challenge to encourage the formation of teams and provide funding to develop and test innovative and cost-effective technologies to provide basic water and sewer services to homes in rural Alaska. As of 2021, the challenge is in phase 4 (Field System Development & Testing).²⁰

The funding process for water and sewer projects is complex. The TCC Office of Environmental Health (OEH) assists villages and works with the Alaska Native Tribal Health Consortium (ANTHC) and VSW to secure projects that meet the community needs and have potential to be competitive for funding. Once a project is funded OEH will conduct plan reviews at various stages of development.

OEH staff work with local water operators to develop preventative maintenance plans for village water treatment plants. Not only does this extend the life of the treatment facility and reduce operations costs, it also increases a community’s score when competing for water and sewer project funding.

Natural Hazards

Climate Change

Climate change has already warmed Alaska by an average of three degrees Fahrenheit over the past six decades. The daily maximum temperature statewide is projected to increase an additional four to eight degrees by 2065.²¹

¹⁸ An unserved community is one in which 55% or fewer homes are served by a piped, septic tank & well, or covered haul system.

¹⁹ *State of Alaska Department of Environmental Conservation, Division of Water*, “Groundwater in Alaska,” 2008, Available at <https://dec.alaska.gov/water/>

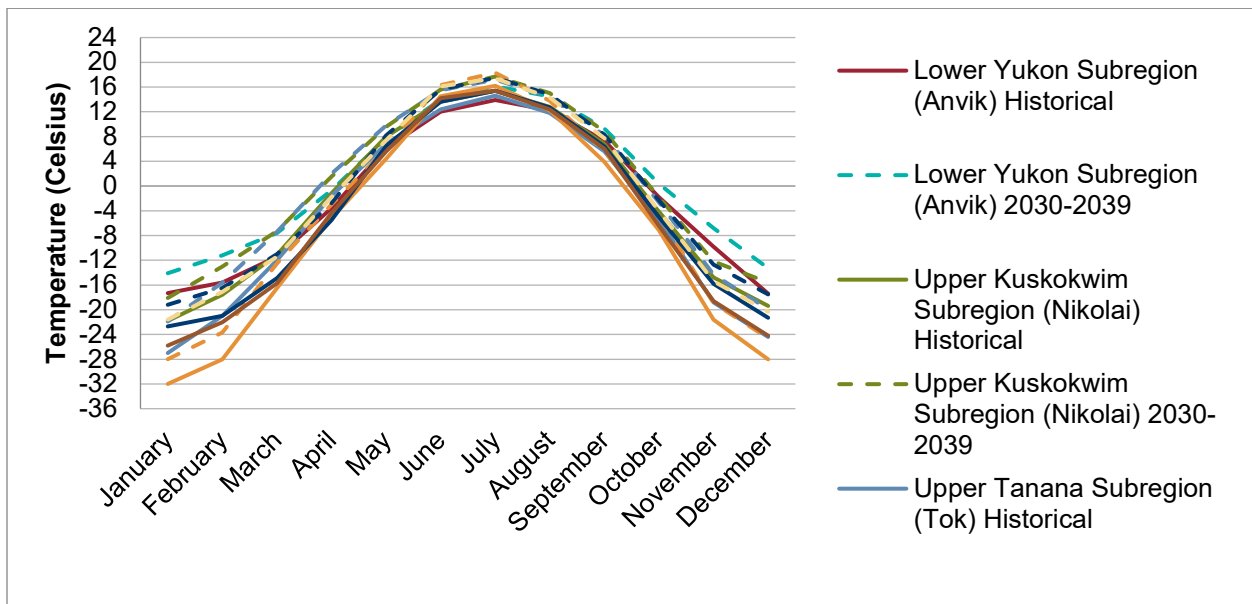
²⁰ *State of Alaska Department of Environmental Conservation, Division of Water*, “Alaska Water and Sewer Challenge” 2021, Available at <https://dec.alaska.gov/water/water-sewer-challenge/>

²¹ U.S. Government Publishing Office, “Fourth National Climate Assessment Volume II, Chapter 26: Alaska.” 2018, Available at <https://nca2018.globalchange.gov/>

Figure 17 through Figure 23 are based on community climate chart modeling from the SNAP Scenarios Network for Alaska & Arctic Planning. This tool uses “Representative Concentration Pathways (RCPs)” to display climate scenarios. RCPs describe paths to future climates based on atmospheric greenhouse gas concentrations. The following charts are based on a “medium” scenario that assumes greenhouse gas emissions peak in 2080 and radiative forcing stabilizes after 2100.²² In all models of TCC subregions, average temperatures are projected to increase by two to three degrees Celsius in the coming decades.

In addition to changing temperatures, climate change brings many impacts to the region, including a loss of ice and/or frozen ground needed for travel or food storage, precipitation changes, an increased fire risk, permafrost thaw and erosion, and changes in species composition to “favor species that are less cold-hardy (including desirable crops and invasive species).”²³

Figure 17: Projected Temperature Changes by TCC Interior Subregion with Medium Emission Impact (RCP 6.0) for 2030-2039

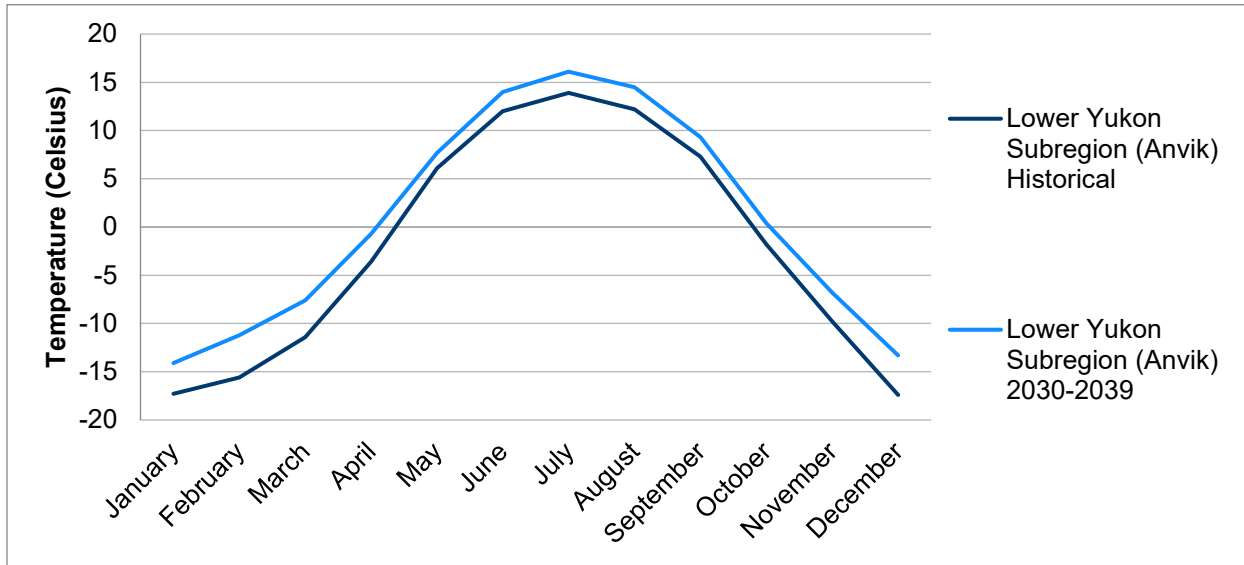


Source: SNAP Scenarios Network for Alaska & Arctic Planning, International Arctic Research Center at the University of Alaska Fairbanks, “Community Climate Charts,” 2022, Available at <https://snap.uaf.edu/tools/community-charts>

²² SNAP Scenarios Network for Alaska & Arctic Planning, International Arctic Research Center at the University of Alaska Fairbanks, “Community Climate Charts,” 2022, Available at <https://snap.uaf.edu/tools/community-charts>

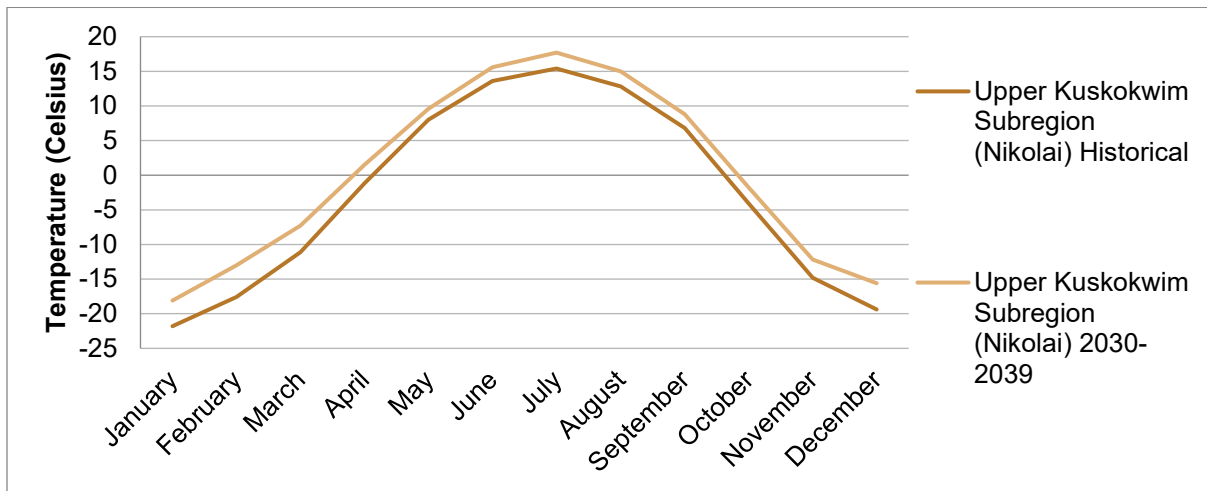
²³ SNAP Scenarios Network for Alaska & Arctic Planning, International Arctic Research Center at the University of Alaska Fairbanks, “Community Climate Charts,” 2022, Available at <https://snap.uaf.edu/tools/community-charts>

Figure 18: Lower Yukon Subregion Projected Temperature Changes



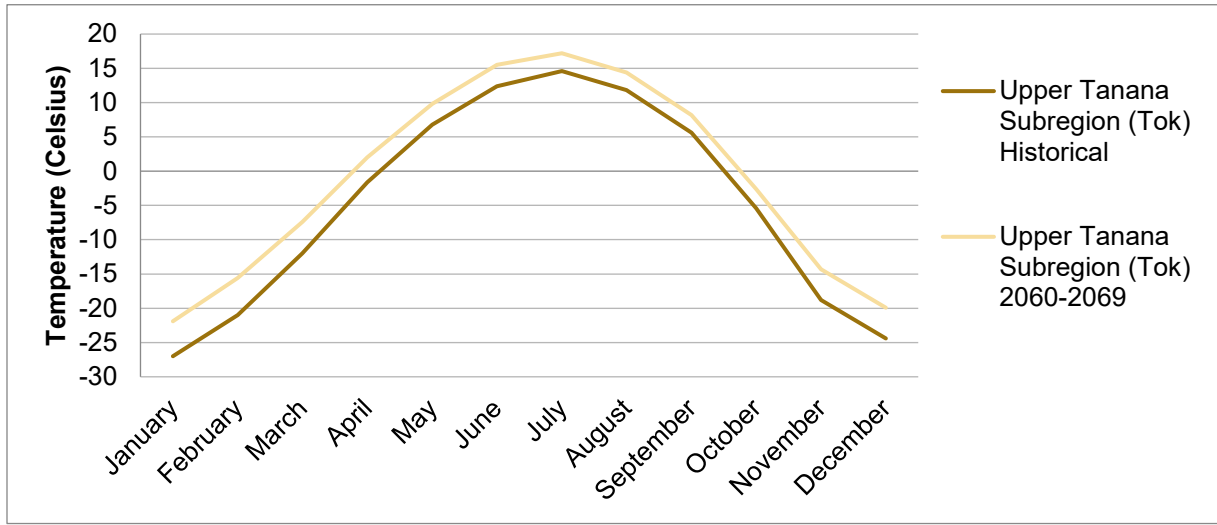
Source: SNAP Scenarios Network for Alaska & Arctic Planning, International Arctic Research Center at the University of Alaska Fairbanks, “Community Climate Charts,” 2022, Available at <https://snap.uaf.edu/tools/community-charts>

Figure 19: Upper Kuskokwim Subregion Projected Temperature Changes



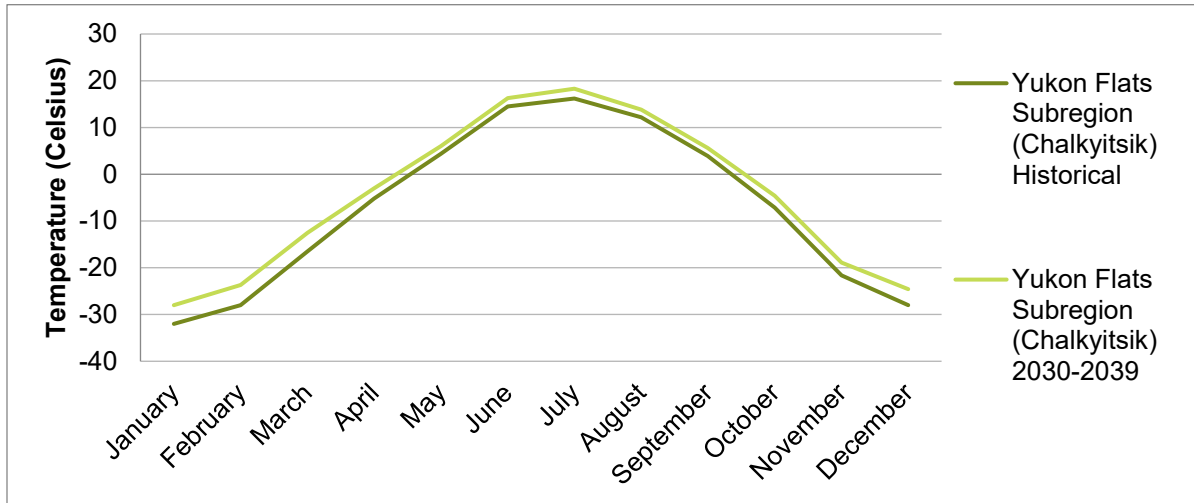
Source: SNAP Scenarios Network for Alaska & Arctic Planning, International Arctic Research Center at the University of Alaska Fairbanks, “Community Climate Charts,” 2022, Available at <https://snap.uaf.edu/tools/community-charts>

Figure 20: Upper Tanana Subregion Projected Temperature Changes



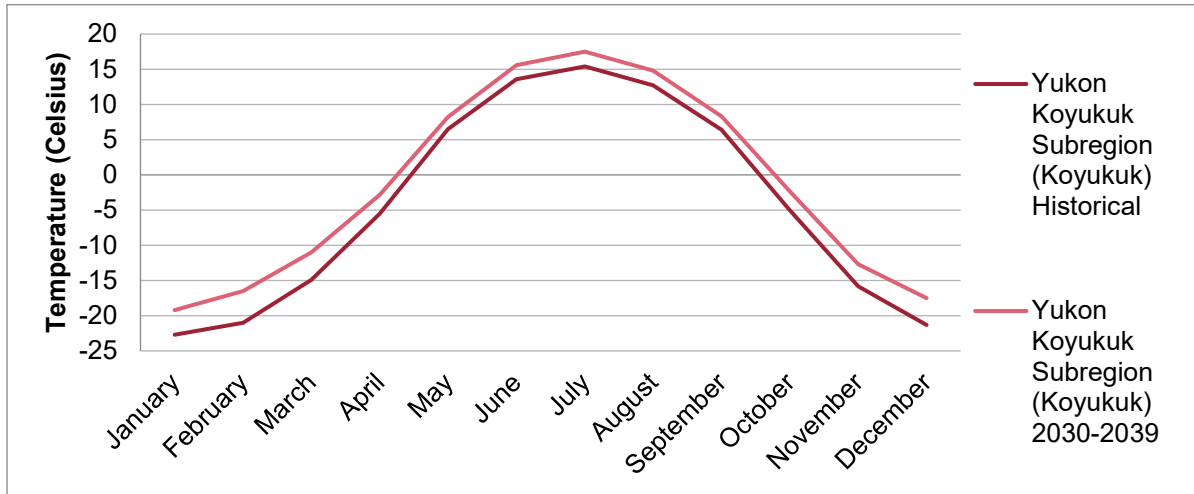
Source: SNAP Scenarios Network for Alaska & Arctic Planning, International Arctic Research Center at the University of Alaska Fairbanks, "Community Climate Charts," 2022, Available at <https://snap.uaf.edu/tools/community-charts>

Figure 21: Yukon Flats Subregion Projected Temperature Changes



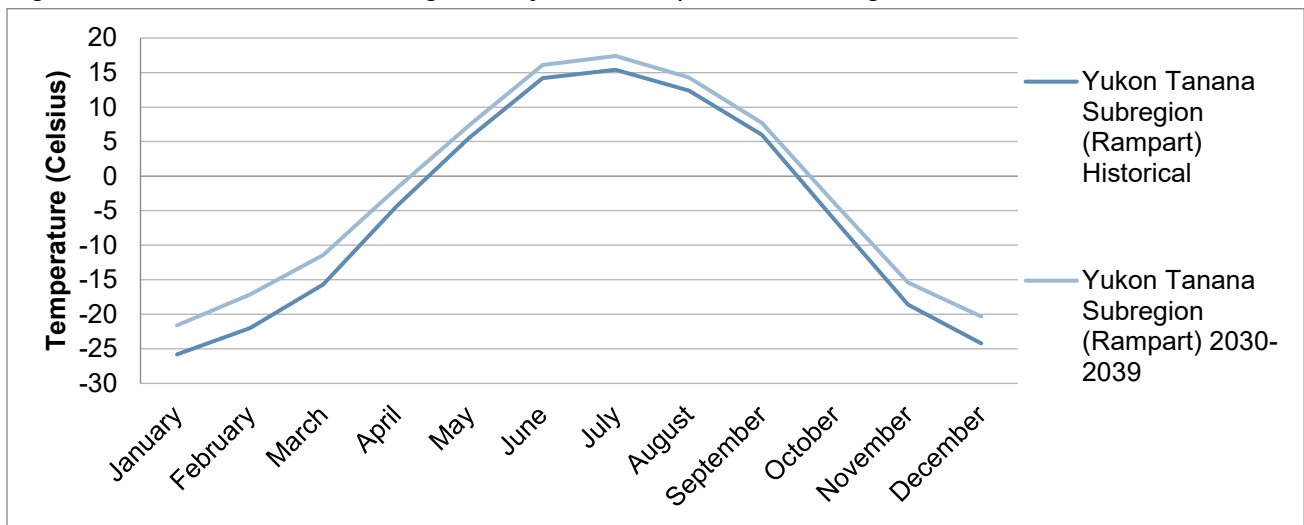
Source: SNAP Scenarios Network for Alaska & Arctic Planning, International Arctic Research Center at the University of Alaska Fairbanks, "Community Climate Charts," 2022, Available at <https://snap.uaf.edu/tools/community-charts>

Figure 22: Yukon Koyukuk Subregion Projected Temperature Changes



Source: SNAP Scenarios Network for Alaska & Arctic Planning, International Arctic Research Center at the University of Alaska Fairbanks, “Community Climate Charts,” 2022, Available at <https://snap.uaf.edu/tools/community-charts>

Figure 23: Yukon Tanana Subregion Projected Temperature Changes



Source: SNAP Scenarios Network for Alaska & Arctic Planning, International Arctic Research Center at the University of Alaska Fairbanks, “Community Climate Charts,” 2022, Available at <https://snap.uaf.edu/tools/community-charts>

Wildfires

According to the Alaska Center for Climate Assessment and Policy, the average wildfire area burned per decade in Alaska is projected to double by the middle of this century.²⁴ Since 1988, the frequency of years that burned over 250,000 acres on Yukon Flats quadrupled.²⁵

Floods

Many TCC communities are located alongside riverbanks or deltas and are susceptible to flooding because of ice jams, snow, glacial melts, rising sea levels, and heavy rainfall. With climate change, scientists expect increased water flow, flooding, and woody debris.²⁶

In 2019, a report prepared for the Denali Commission identified 38 “Group 1” Alaska communities in immediate danger of flooding and erosion. Ten are within the TCC region: Allakaket, Circle, Eagle, Fort Yukon, Galena, Hughes, Koyukuk, Nenana, Nulato, and McGrath. The threat of flooding and erosion for these communities is immediate to critical infrastructure. Damages resulting from a moderate flood or compounding erosion would impact community sustainability, present life safety concerns, affect access to emergency services, and/or require support from outside the region to assist the community in responding to the event.²⁷

Subsistence Resources

Yukon and Kuskokwim River salmon populations have been declining drastically since 1998, resulting in decreased allowable subsistence and commercial catch. In 2020 and 2021, the region experienced closures of subsistence fishing for Chinook and chum salmon runs. Run sizes are expected to continue declining into 2022.²⁸

Road access proposals and projects could potentially result in a surge of nonresident hunting and fishing of subsistence harvesting areas. This possibility could impact species that are important for subsistence.²⁹

²⁴ Climate Central, “THE AGE OF ALASKAN WILDFIRES,” 2015, Available at <http://assets.climatecentral.org/pdfs/AgeofAlaskanWildfires.pdf>

²⁵ Alaska Interagency Coordination Center, Alaska Fire Science Consortium, Available at <https://fire.ak.blm.gov/>

²⁶ Yukon Flats National Wildlife Refuge & International Arctic Research Center, “Yukon Flats changing environment” 2021, Available at <https://uaf-iarc.org/wp-content/uploads/2021/06/Yukon-Flats-Changing-Environment.pdf>

²⁷ Denali Commission, “Statewide Threat Assessment: Identification of Threats from Erosion, Flooding, and Thawing Permafrost in Remote Alaska Communities,” 2019, Available at <https://www.denali.gov/wp-content/uploads/2019/11/Statewide-Threat-Assessment-Final-Report-20-November-2019.pdf>

²⁸ Alaska Department of Fish & Game, Northern Bering Sea surface trawl survey, 2019, Available at https://s3-us-west-1.amazonaws.com/akssfapm/APM_Uploads/2017/51002/.pdf/2019northernberingseacruisereportakssfifinal.pdf

Earthquakes

The TCC region has several fault systems with the potential for major earthquakes. In 2002, a magnitude-7.9 earthquake occurred along the Denali Fault.³⁰

Industry Impacts

Continued high worldwide oil prices and long-term declines in statewide oil exploration and production will likely result in a decrease in the availability of oil industry jobs for Alaska residents.

Mining and resource extraction efforts in the region are a potential source of income but may also bring a variety of environmental risks and can undermine traditional ways of life, especially for anadromous waterways and other important fish and game habitat used by subsistence gatherers.

Wild Resource Harvests

Figure 24 summarizes per capita wild resource harvests by pounds of usable weight for different species by census area. Wild resource harvests contribute significantly to households in the TCC region, with the Southeast Alaska Census Area averaging 243.6 pounds of wild resource harvests per capita annually, and the Yukon-Koyukuk Census Area averaging 324.1 pounds annually. These numbers are both well over the statewide average of 61.6 pounds and more than ten times greater than the Fairbanks area.

Figure 24: Per capita wild resource harvest by pounds usable weight

| Census Area | Salmon | Other fish | Shellfish | Land mammals | Marine mammals | Birds and eggs | Wild plants | All resources |
|--|--------|------------|-----------|--------------|----------------|----------------|-------------|---------------|
| Southeast Fairbanks Census Area (portion) | 76.3 | 36.6 | 0.3 | 110.8 | 0 | 6.4 | 13 | 243.6 |
| Yukon-Koyukuk Census Area | 159 | 45.1 | 0.1 | 103.3 | 0 | 10.1 | 6.6 | 324.1 |
| Fairbanks Nonsubsistence Area | 7.1 | 1.3 | 0.1 | 7.9 | 0 | - | - | 16.4 |
| State | 22.8 | 12.4 | 1.6 | 15 | 6.7 | 1.3 | 1.9 | 61.6 |

Source: Alaska Dept of Fish and Game, “Estimated harvests of wild resources for home use in Alaska by census area, region, and category”, 2017, Available at <https://www.adfg.alaska.gov/static-sub/csis/pdfs/estimated%20harvests%20by%20region%20and%20census%20area.pdf>

³⁰ Alaska Earthquake Center. “Why Earthquakes Happen in Alaska,” 2015, Available at <http://earthquake.alaska.edu/earthquakes/about>

Cost of Living

In Figure 25, heating fuel costs in the TCC region are 200 percent higher than the national average while costs for basic grocery items like apples are nearly 500 percent higher than the national average. This paired with a lower per capita income contributes to an extremely high cost of living in the region.

Figure 25: Cost of Living Comparisons, 2021

| Region | Price per gallon for gasoline | Price per gallon for heating fuel | Price per kWh without PCE | PCE per kWh | Price per kWh with PCE | Price per lb of bananas | Price per lb of apples |
|------------------------|-------------------------------|-----------------------------------|---------------------------|-------------|------------------------|-------------------------|------------------------|
| United States | \$3.33 | \$2.89 | \$0.14 | - | - | \$0.57 | \$1.32 |
| Alaska | \$3.76 | \$3.39 | \$0.23 | - | - | \$0.89 | \$1.99 |
| TCC Region | \$5.33 | \$5.72 | \$0.72 | \$0.40 | \$0.32 | \$2.66 | \$6.08 |
| Upper Kuskokwim | \$6.55 | \$6.76 | \$0.90 | \$0.47 | \$0.43 | \$2.69 | \$3.99 |
| Lower Yukon | \$5.38 | \$5.60 | \$0.57 | \$0.31 | \$0.26 | \$2.09 | \$2.55 |
| Upper Tanana | \$4.50 | \$4.00 | \$0.52 | \$0.28 | \$0.24 | \$3.00 | \$11.00 |
| Yukon Flats | \$4.40 | \$7.35 | \$0.90 | \$0.54 | \$0.36 | \$2.69 | \$3.99 |
| Yukon Koyukuk | \$5.90 | \$5.27 | \$0.67 | \$0.32 | \$0.34 | \$2.50 | \$9.95 |
| Yukon Tanana | \$5.28 | \$5.36 | \$0.78 | \$0.47 | \$0.30 | \$3.00 | \$5.00 |

Note: Grocery data collected via phone interviews with grocery store clerks across the region.

Source: State of Alaska Department of Commerce, Community, and Economic Development, Division of Community and Regional Affairs, Research & Analysis, Fuel Price Survey, Historical Fuel Prices in 100 Communities, Available at <https://www.commerce.alaska.gov/web/dcra/researchanalysis/fuelpricesurvey.aspx>.

Appendix B: CEDS Regional Survey Results

Responses to Question #1, “What do you like most about living in the TCC region?” (196 responses)

Most Repeated Themes, with Sample Quotes

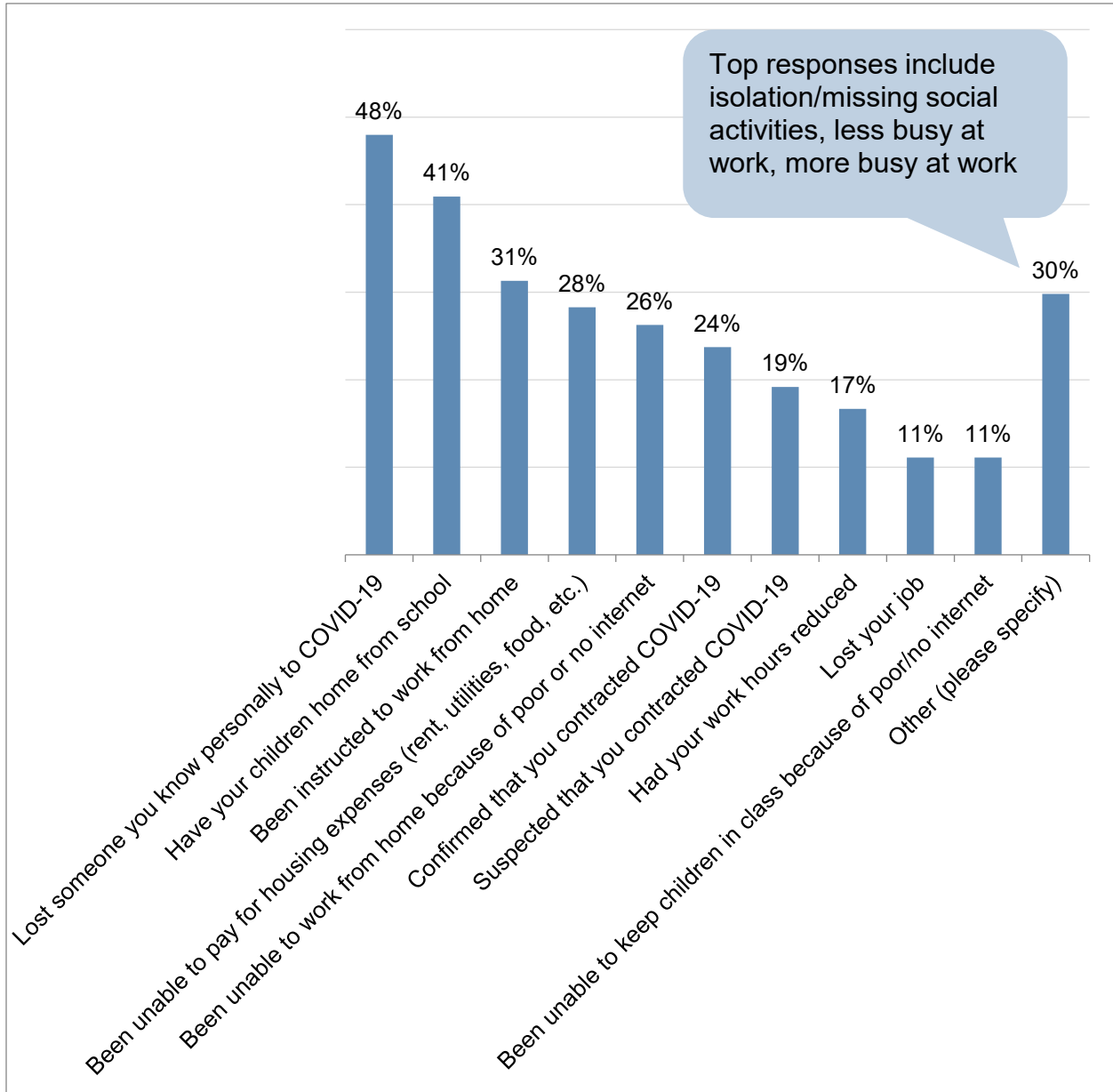
- **A strong sense of community, belonging, and home (75 responses)**
 - “Our region has become more together, we are working together and to me, that is what counts, like we are family, I love living here.”
 - “There is nowhere else in the world that feels like home. There is a sense of connectedness and community that can’t be broken. The right mix of new, traditional, and intermingled peoples, customs, and experiences.”
 - “I like how we are a big community and love how we support each other.”
 - “I love how our people come together when times are hard. Love seeing our people standing together through thick and thin.”
- **A subsistence lifestyle, and land and wildlife stewardship (48 responses)**
 - “The natural beauty. I am drawn to the boreal forest, with its hot summers, freezing snowy winters, and abundant wildlife, berries, and mushrooms! Also, the friendliness and ‘small-town’ feel of Fairbanks.”
 - “Interior Alaska is my ancestral homelands. Being able to get on the land for fishing, hunting and berry picking is the best life.”
 - “I like the Dine’ people here, the rivers, moose and the warmth in the summer and the skies.”
- **Tribes and Native organizations, and residents take care of one another, and Tribal organizations provide quality services (39 responses)**
 - “The corporations help their people a lot. And want to see their people succeed.”
 - “I like the fact that TCC is always finding ways and trying to better the communities whether it providing fish to our elders, sending cleaning packages, having sanitation jobs to help maintain a clean work safe environment for the employees and our community members that go to the public places.”
 - “Our Tribes, regional & subregional, works together for solutions of mutual benefit with TCC as moderator.”
- **Pride in culture and Alaska Native heritage (24 responses)**
 - “Our culture, the sense of community, our traditional foods, the Yukon, proximity to goods and services in Fairbanks.”
 - “It’s important to me, because my family and ancestors were born and raised in this region. I want to continue the legacy of our native people and ensure it’s survival by living in peace and happiness as they did.”
 - “Athabascan culture and the land!”

Responses to Question #2, “What do you like least about living in the TCC region?” (194 responses)

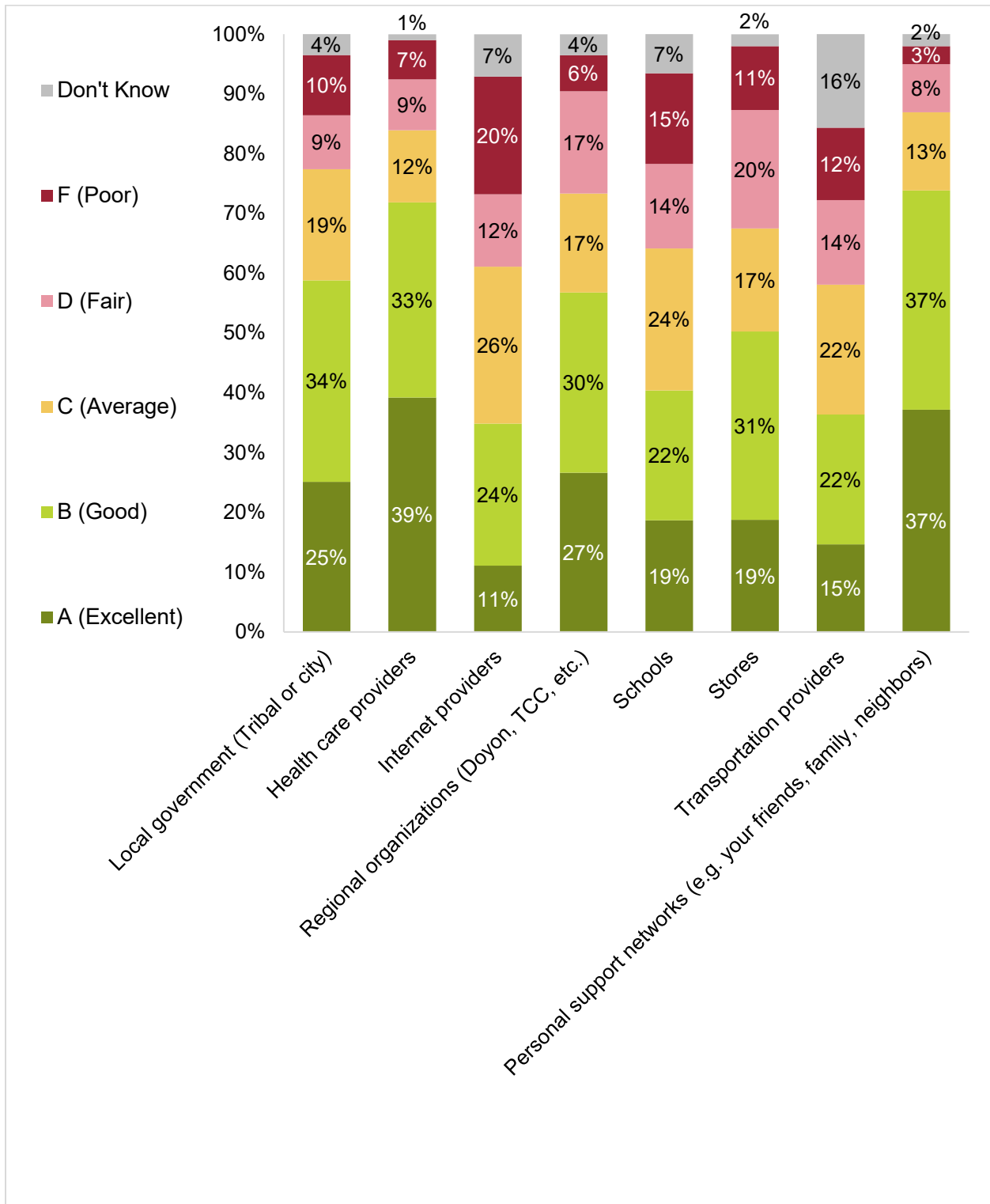
Most Repeated Themes, with Sample Quotes

- **Limited access to full health and social services (31 responses)**
 - “The difficulties and expense of travel to and from the village to obtain medical care or getting enough food and supplies.”
 - “Even though TCC has free health care it is very limited on what they are able to provide to the community.”
 - “Not enough help with mental health, addiction. Prevention and wellness.”
 - “The down side of living in village is not having adequate healthcare to fight the pandemic no ventilator in the villages we have to be medical if any of our people got covid and during the unpredictable weather that can be a life threatening scare if they do not make it out.”
- **Cold winters and seasonal weather (24 responses)**
 - “The bitter cold winter months.”
 - “The cold and dark, however, that’s just part of living in Alaska.”
 - “When I was younger I never thought of slippery winter streets/sidewalks, now as an elderly person I think about slipping/falling every time I go outside in the winter.”
- **High cost of living (23 responses)**
 - The cost of living and traveling to our villages.
 - High cost of living which deeply hinders the health and happiness of all our people.
 - Prices of everything being doubled in the villages.
- **Limited access off the road system, and a sense of remoteness for many villages (19 responses)**
 - “We are so far and not enough workers to help when needed such as asap and other programs.”
 - “Not on the road system so we’re not always able to get fresh produce.”
 - “How far apart we all are.”

Responses to Question #3, “Which of the following have you personally experienced since the beginning of the pandemic? Select all that apply.” (198 responses)



Responses to Question #4, “How would you grade our region’s response to the pandemic?” (199 responses)



Responses to Question #5, “What actions would best help TCC families, communities and businesses recover from the pandemic?” (198 responses)

Most Repeated Themes, with Sample Quotes

- **Job opportunities and getting people back to work (40 responses)**
 - “More support for people who have had lost jobs and reduced hours.”
 - “Create jobs so people can go back to work.”
 - “Help support people going back to work, there is a staffing crisis going on, so many vacant jobs and so many people that can work.”
 - “Create an online market to Support indigenous artists and the artists market. Most people are creating beautiful artwork from home but can’t sell because of Covid restrictions.”
- **Following COVID-19 mitigation strategies such as masking, distancing, sanitizing (32 responses)**
 - “Masking up, sanitizing, quarantine when travelling, no gatherings - like huge potlatches”
 - “Require masks to workers to keep elders safe and washing hands.”
 - “We seem to have weathered the pandemic okay so far, even with TCC and Tribal office employees having to work from home and quarantine. Maybe extend sick days for people who need to call out to get Covid testing after being exposed so that they don't have to go to work and potentially expose others because they can't afford to stay home.”
- **Providing financial assistance (31 responses)**
 - “Allow us to have access to the Covid monies received.”
 - “Maybe offering wage increase and having some kind of funds to help families and businesses.”
 - “Provide more help for those that could not afford the job loss or quarantine time during this pandemic. There are a lot that lives paycheck to paycheck and are right on the edge of losing their home, etc.”
- **Promote vaccinations and testing (26 responses)**
 - “I think something that would help is we try to push harder to encourage people to get vaccinated. Due to the rising numbers of COVID in Alaska masks should be required in every public place.”
 - “Making sure everyone gets the vaccination.”
 - “I think TCC response was adequate - vaccines readily available.”

Responses to Question #6, “Lessons Learned: What should we do differently in the future to help us better prepare and respond to future disasters?” (192 responses)

Most Repeated Themes, with Sample Quotes

- **Importance of emergency planning and collaboration (54 responses)**
 - “This is a tough one, we lucked out and received a lot of funding from the government, but that may not be the case in the future, we should prepare ourselves, to self-support our native communities in times of need.”
 - “Create a plan in case of another pandemic. Provide each employee with a laptop/portable printer to be able to work from home, provide TCC region with the supplies to weather the disaster at hand. I believe TCC did a great job so far.”
 - “Planning, planning, planning. The biggest issue: adequate food in the interior and supply lines during a disaster. This desperately needs to be addressed. We have learned a lot from Covid. Apply our new knowledge to our current disaster plans. Most important I feel is that we need to have internet access in all villages for all residents.”
 - “Develop emergency plans for every emergency situation: winter storms, floods, earthquakes and wildfires.”
- **Promote general health and wellness and improve health care systems (18 responses)**
 - “Educate people on self-care like what needs to be done when home sick. How to take care of yourself at home.”
 - “I think for unexpected disasters like this, one thing I notice was there wasn’t enough places where critically ill people were able to be helped and it caused chaos for both the community and the people that were trying to help the community.”
 - “Improve wellness and prevention services, we were all isolated, scared, etc. what things could people do to help with all of this and increased anxiety, loss, etc. Also, more and easier access to counseling services.”
- **Prioritize communications to communities and residents (18 responses)**
 - “Have a hotline set up to call in with questions.”
 - “Emails, text messages of updates and tips on how to deal with the situation mentally.”
 - “Communication and working together to address the needs of all residents fairly and quickly!”
- **Provide household-level education and training on emergency planning (17 responses)**
 - “People need to be educated to do their own preparations for disasters. We’ve created too much dependency. The flood recovery was terrible and this is going to be even worst - we in general have developed an attitude of entitlement and dependency.”
 - “Free classes about current disasters, and ongoing classes for future possible disasters. On-line, or and, in-person.”
 - “Come together to solve problems. teach our people how to prepare for another disaster. Prepare them to gather food, supplies and knowledge of disasters.”
- **Improve food security (16 responses)**
 - “More food storage and how to preserve food.”
 - “Have a plan of logistics on how to expedite food and necessities to the communities.”
 - Food security preparedness, make sure everyone has what they need at home. Look after Elders.”

Responses to Question #7, “What can we do to better support new and existing businesses? (examples: improve transportation routes to expedite delivery of goods and services; implement energy efficiency improvements, improve internet access)” (189 responses)

Most Repeated Themes, with Sample Quotes

- **Reliable and Affordable Telecommunications (59 responses): Increase broadband and cell service connectivity**
 - “Improve internet!”
 - “High speed broadband to every home and community gathering place.”
 - “I think the best way to support our village businesses is to get broadband, faster internet would create more opportunities for our Tribal citizens.”
 - “Better internet to our rural communities. So many programs with funds are tied to the internet, and so many of our communities have poor internet, and cannot access web portals or even Zoom meetings.”
- **Transportation (36 responses): Take steps to increase transportation access and reduce the cost of shipping and material goods through improvements to transportation, especially air service**
 - “Encourage more customer-service friendly air carriers.”
 - “Support businesses by advocating for infrastructure improved docking and loading and unloading goods and services, with in each community served airports, boat launches and dock areas, for easy access.”
 - “Improve transportation routes to expedite delivery of goods and services.”
- **Business Development and Entrepreneurship (26 responses): Provide training, workshops, and startup funding for small business**
 - “Support with business plan development on how to survive through pandemics. Job training.”
 - “Provide businesses with professional support to seek out business capital, business growth, marketing, etc.”
 - “Provide startup funding for new businesses.”
- **Energy (19 responses): Reduce the cost of heat and electricity, which are high and impact the bottom line for small business in the region**
 - “Decrease the cost of energy.”
 - “Energy efficiency for sure.”
 - “Improving energy efficiency, especially reducing heat loss in all buildings, will help improve air quality and save money. As more people shift to working from home permanently, I would like to see incentives for energy savings in the home office as well, especially switching to renewable energy.”

Responses to Question #8, “What can we do to create more and better paying jobs? (examples: more residents trained in natural resources management, move forward with self-governance efforts and independent control of Tribal funds)” (194 responses)

Most Repeated Themes, with Sample Quotes

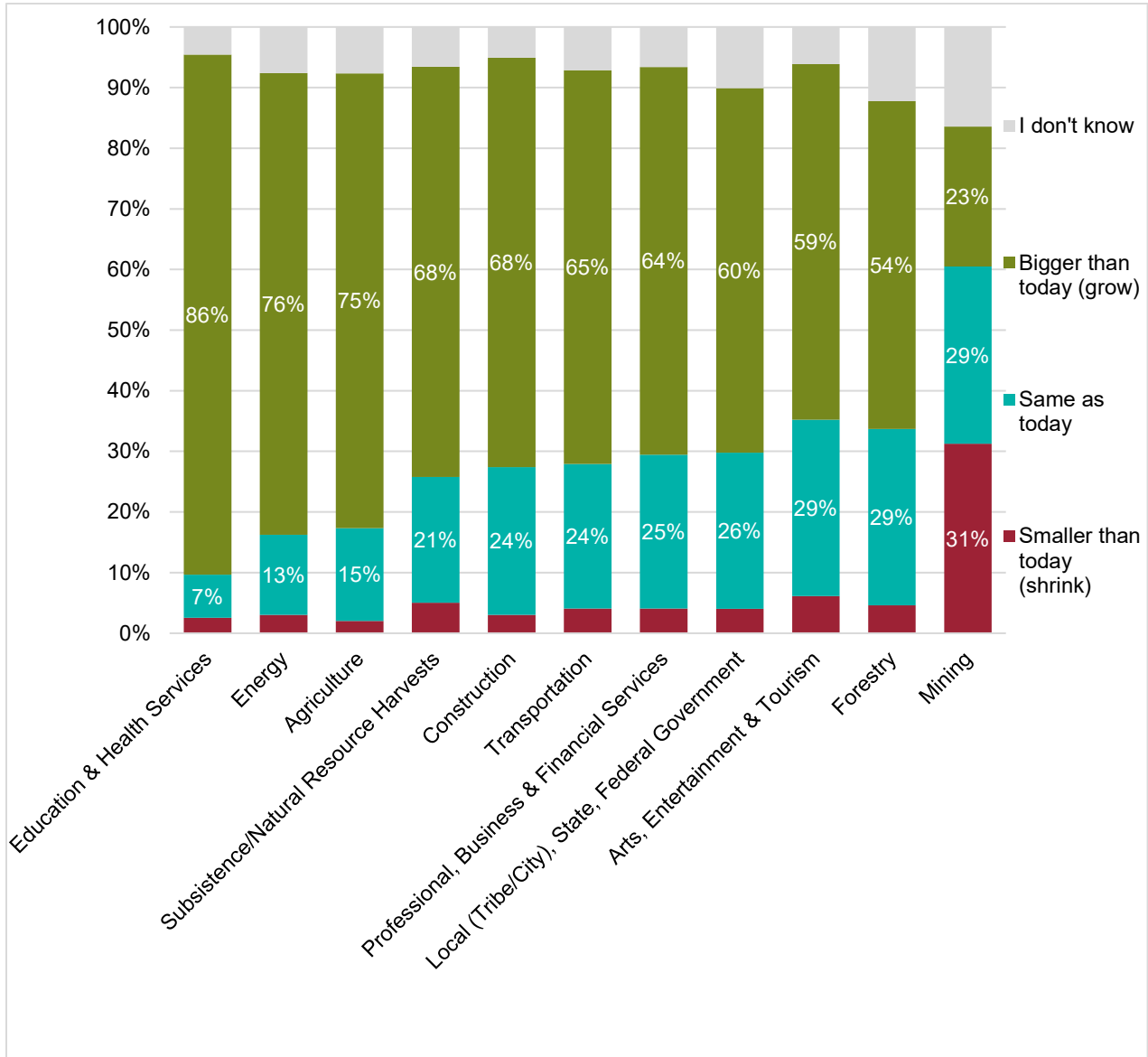
- Increase the availability of trainings (76 responses)
 - “Need to have a trained workforce for sure. Not just college educations, we need more electricians, plumbers, heavy equipment operators and mechanics, that can do the work locally that is needed.”
 - “Offer more training opportunities to people in the villages for jobs related to healthcare, office work, carpentry, and heavy equipment.”
 - “Train more people in medical fields or engineering so that they have the highest paying jobs.”
 - “Better on the job training and possibly trade schools. Stress the importance of local hire and hard work.”
- Improve workforce development in schools and better connect young people with jobs (26 responses)
 - “High school kids need to get involved with Fish & Game more classes on science so they could study our fish and climate weather to help us understand it.”
 - “Make training more easily available to young people or people new to working specialized jobs.”
 - “To support the education of our young people to be qualified for these jobs.”
- Increase the availability in jobs in villages (13 responses)
 - “Bring more jobs to the villages. Some TCC jobs in our village have been open for ten years. Help Tribal Members to go through the rigorous screening process to work for TCC.”
 - “Have more work-from-home jobs available in the case of another emergency. I enjoyed being an intern at TCC over the summer, so I wish I could’ve done that again - even over Zoom/emails.”
 - “Keep doing what your doing, TCC has a lot of village employees, which really helps.”
- Offer improved wages and benefits (13 responses)
 - “Pay better wages for those looking for work.”
 - “Compensation with extra days off for wellness.”
 - “I see too much temporary jobs without benefits. I’m retired and I see too much people with small SS checks.”

Responses to Question #9, “What can we do to better train and support workers and leaders in the TCC region? (example: Reduce barriers to training participation, such as offering guidance and support for child care, housing and transportation costs to out-of-community trainings.)” (187 responses)

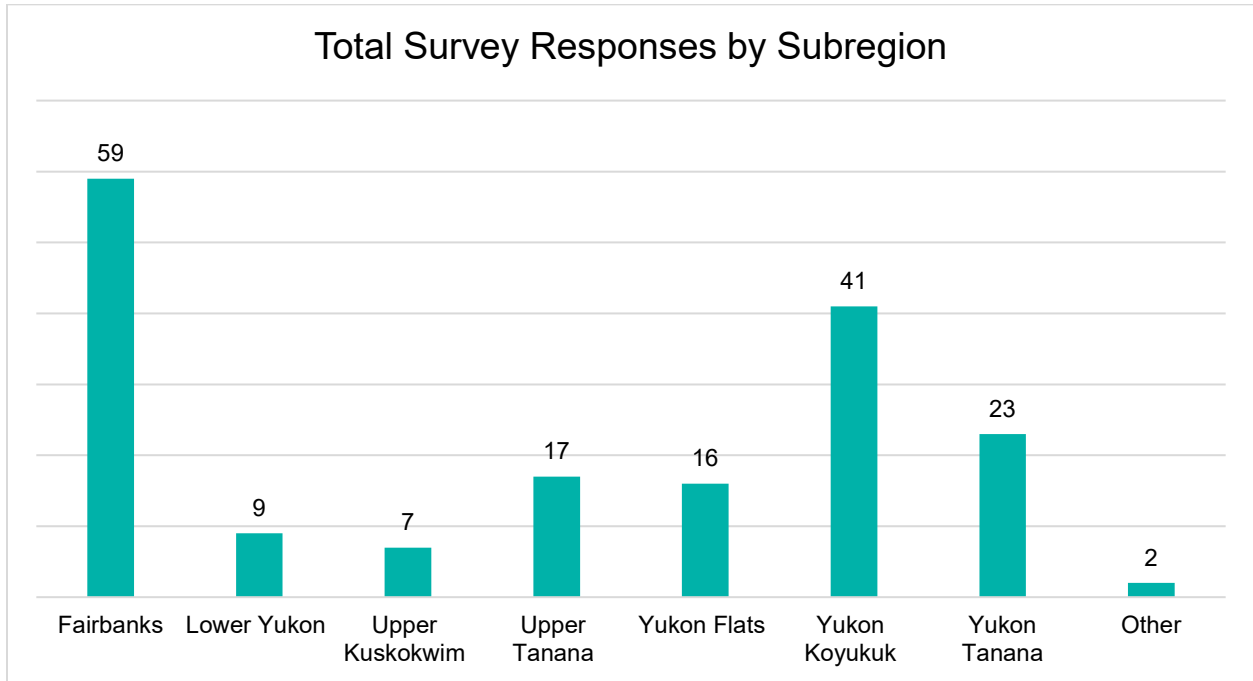
Most Repeated Themes, with Sample Quotes

- Improve access to training (providing training in communities or virtually and reducing barriers such as lack of transportation, housing or child care) (40 responses)
 - “Bring trainings to rural communities, increase economy in rural communities by doing so!”
 - “Offer housing, transportation and child-housing and housing costs. Bring more on-the-job trainings to our village.”
 - “If Tribe members can’t come to Fairbanks for training then hold Zoom trainings.”
- Increase availability of childcare in villages (33 responses)
 - “Child care is a big issue. Elders such as myself have to provide childcare on top of everything else. We need child care/early learning centers from 7:30 - 5:30. Provide trainings etc. in villages where appropriate. Partner with employers to provide training opportunities.”
 - “Housing and child care is needed for rural employees to hold/keep jobs in our rural communities. Many staff that would be excellent workers, do not have reliable housing or child care, and will leave a position or move from the village.”
 - “More day care for children.”
- Ensure adequate housing is available for village employment opportunities, and housing availability for out-of-town trainings (19 responses)
 - “Help with housing and transportation expenses for all TCC-affiliated community residents for out-of-community trainings.”
 - “Housing a big problem in the rural villages.”
 - “Child care assistance and offer more job trainings with housing and transportation assistance if out of the community.”
- Increase training availability in key industries/occupations and basic workplace habits (23 responses)
 - “Training is very important for new people coming into a job for the first time, operators, clerks, assistant workers.”
 - “Cohort style with practical skill development, community healing, childcare, home building skill development with itinerant support for self-help efforts.”
 - “Have leadership trainings in each subregion. Have Tribal council trainings.”
 - “A variety of job training would be great. For example...train women to be truck drivers.”

Responses to Question #10, “20 years from now, what is the ideal combination of industries in the TCC region? Which industries should grow, stay the same, or shrink?” (198 responses)



Responses to Question #12, “What community are you from?” (174 responses)



Note: there were also 18 respondents with an unidentified location due to an initial survey error with this question; these respondents are excluded from the chart above.

Appendix C: Outreach Materials

Project Flyer

Blank Copy of Project Survey

Announcement Emails

TCC CEDS Presentation Slides

Appendix D: COVID-19 and Economic Recovery Resources

- **Foraker Group:** [Alaska nonprofit resources allocated through the American Rescue Plan Act](#)
 - List of Alaska allocations
 - Summary of COVID-19 impacts on nonprofits nationally
 - Information on paid leave tax credits
 - Information on unemployment insurance reimbursement
 - Information on PPP and other COVID-19 relief loans
 - Information on the Aid for State, Local, Tribal, and Territorial Governments program
 - Full American Rescue Plan Act analysis by section
- **Alaska Federal Funding (joint informational coalition):** [State and federal grant resources for Alaska governments, businesses, organizations and individuals](#)
 - Comprehensive lists of active and pending grant opportunities
 - Information on eligibility and compliance for ARPA funding to Tribal governments
- **Anchorage Economic Development Corporation:** [Resource guide for COVID-19 relief and information](#)
 - Resources for business owners, employees, nonprofits and residents
 - Includes information in multiple languages
- **State of Alaska:** [Full list of federal COVID-19 relief funds appropriated for Alaska](#)
 - Includes breakdown of funding by Act
- **U.S. Treasury:** [Capital Projects Fund](#)
 - Includes a breakdown of the fund, which targets projects in rural, low-income and Tribal communities
 - Focuses on broadband and other modern infrastructure
 - Includes information on how to request funding, deadlines, funding amounts and eligible projects
- **State of Alaska:** [Alaska Economic Stabilization Team](#)
 - Full economic stabilization plan
 - Includes resources such as CDC guidelines, loans, unemployment, and eviction information
- **Alaska Municipal League:** [COVID-19 Resources for Municipalities](#)
 - Questions and answers for municipalities
 - Extensive CARES Act fact sheets and guides for municipalities, small businesses, and nonprofits
 - FEMA resources for Tribal governments and municipalities, including fact sheets and public assistance forms
 - Families First Corona Response Act information
 - Links to relevant State of Alaska resources, including industry specific guidelines and plans

- **Alaska Municipal League:** [ARPA Compliance Support Service Agreement](#)
 - Form to enter into an agreement with AML for support on ARPA compliance
 - Includes a fee structure based on size of allocation
- **Back To Biz:** [Business recovery program](#)
 - Resources to assist business recovery from the pandemic
 - Includes information on improving websites, reaching customers online, online sales platforms and tips and tricks for business owners and entrepreneurs
- **Alaska Federation of Natives:** Navigator program
 - Includes workshops and trainings
 - Includes funding opportunities
 - Includes other resources and partners for assistance grant writing assistance, child care, housing, and more