The Economic Value of Public Transit in Alaska

Developed by EBP US, Inc. for the Alaska Department of Transportation & Public Facilities

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Alaska Transit Agencies

The study includes the providers that receive grant funding from the Alaska Community Transit Office:

- Anchorage People Mover and AnchorRIDES
- Bethel Bethel Transit Bus System
- Central Kenai Peninsula Central Area Rural Transit (CARTS)
- Fairbanks Metropolitan Area Commuter System (MACS) and Van Tran
- Girdwood Glacier Valley Transit (GVT)
- Gulkana Soaring Eagle Transit (SET)
- Hollis The Inter-Island Ferry Authority (IFA)
- Juneau Capital Transit
- Ketchikan Ketchikan Gateway Borough Transit (The Bus)
- Kodiak Kodiak Area Transit System (KATS)
- Wasilla Valley Transit
- Sitka The Ride
- Talkeetna Sunshine Transit
- Tok Interior Alaska Bus Line (IABL)

The Economic Value of Public Transit in Alaska

Public transportation agencies across Alaska serve residents, visitors, and businesses by providing safe, affordable, reliable, and accessible transportation. This report assesses the multifaceted benefits of transit and its importance to the Alaskan economy, including:

Statewide Economic Impacts of Transit Expenditures. Transit agency

expenditures create jobs and generate business sales throughout Alaska. This includes both jobs and sales directly supported by transit agencies as well as "multiplier" effects, including increased sales for suppliers and the spending of worker income at Alaskan businesses.

Transit Commuters and the Alaskan

Economy. Transit connects Alaskan businesses with their workforce. Using data from the American Community Survey, this study quantifies the number of transit commuters by industry who are able to get to work because of transit, alongside the wages they earn and the business sales they help generate.

Transit's Role in Providing Inclusive

Mobility. A crucial role of transit is providing inclusive mobility, particularly for those who may have limited or no alternative means of transportation. This study provides data on the cohorts for whom transit is especially important, including households without a vehicle, older adults, people with restricted mobility, and young people.

Performance Benefits of Transit. One way of understanding the ongoing value of providing transit services is to consider the counterfactual: "what would happen if transit were not available?" The study quantifies how transit helps avoid costs to people and society relative to other alternative modes of transportation which are often expensive and inconvenient. The evaluation includes user benefits like travel cost savings as well as broader societal effects on safety and the environment. The study also analyzes the value of enabling access to jobs, health care, and other social connections.

Transit Agency Highlights. Transit agency highlights developed based on interviews with transit agency staff and other community members provide insights into the unique ways in which agencies serve their communities across the state.

To capture stable conditions before disruptions caused by the COVID-19 pandemic, the study relies on data from the years 2017 to 2019. Findings from interviews provide additional insights into the impacts of the pandemic and how agencies responded and adapted to continue to safely serve their riders.

Key Findings

 Statewide Economic Impacts of Transit Expenditures
 Transit Commuters and the Alaskan Economy
 Transit's Role in Providing Inclusive Mobility
 Performance Benefits of Transit

 Image: Transit Commuters and the Alaskan Economy
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831 Jobs \$113.9 Million in Annual Sales Supported by transit agency

expenditures on operations, maintenance, and capital projects

\$1.9 in Business Sales for Every \$1

Spent within Alaska on transit

5,645 Workers Can get to work because of transit

\$203 Million in Annual Wages Brought home by transit commuters

\$941 Million in Annual Sales Facilitated by transit commuters

> 2 Percent Transit commuter share, statewide

28 Percent Of AK transit commuters live in households without a car available

\$24,826 Median income of AK transit commuters

52 Percent Of AK transit commuters identify as non-white

24 Percent Of AK transit trips by young people under the age of 16

34 Percent Of AK transit trips by people who are 60+ years of age

1 Million Trips enabled by Alaska transit agencies that would not be possible otherwise

\$117 Million On average in annual benefits from Alaska transit

Compared to

\$56 Million On average in annual costs

Source: EBP Analysis. Enabled trips do not include Interior Alaska Bus Lines and the Inter-Island Ferry Authority. Benefits exclude Interior Alaska Bus Lines, Inter-Island Ferry Authority, and Gulkana Soaring Eagle Transit. Photo credits: Municipality of Anchorage, dba: Public Transportation, Capital Transit, Hall Anderson, Courtesy of Leslie Jackson, Ketchikan Gateway Borough Transit.



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1. Introduction

Public transportation agencies across Alaska serve residents, visitors, and businesses in the state by providing safe, affordable, reliable, and accessible transportation within and between Alaskan communities. This report assesses the economic impact and value of transit, bringing together both quantitative and qualitative findings to capture the multifaceted benefits of transit and its importance to the Alaskan economy. The study approach, depicted in Figure 1, joins best practices from national and state studies for capturing the economic value of transit, insights from interviews, and data collected from national and local sources.



Figure 1: Study Approach

The scope of the study includes the fourteen public transit providers that currently receive grant funding from the Alaska Community Transit Office:

- 1. Anchorage People Mover and AnchorRIDES
- 2. Bethel Bethel Transit Bus System
- 3. Central Kenai Peninsula Central Area Rural Transit System (CARTS)
- 4. Fairbanks Metropolitan Area Commuter System (MACS) and Van Tran
- 5. Girdwood Glacier Valley Transit (GVT)
- 6. Gulkana Soaring Eagle Transit (SET)
- 7. Hollis The Inter-Island Ferry Authority (IFA)
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- 12. Sitka The Ride
- 13. Talkeetna Sunshine Transit
- 14. Tok Interior Alaska Bus Line (IABL)

Figure 2 shows the location of the transit agencies across the state, with numbers corresponding to the list above.

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Figure 2: Alaska Transit Agency Locations Across the State

The study includes the following perspectives, organized in individual chapters within the report:

- Statewide Economic Impacts of Transit Expenditures. Transit agency expenditures create jobs and generate business sales throughout the State of Alaska. This includes both jobs and sales directly supported by transit agencies as well as "multiplier" effects, including increased sales for suppliers and the spending of worker income at Alaskan businesses, that ripple throughout the Alaskan economy. To help contextualize these findings, the report benchmarks financial productivity and sources of funding for Alaska transit alongside other low-density states.
- **Transit Commuters and the Alaskan Economy**. Transit plays a key role in connecting Alaskan businesses with their workforce across a range of industries. Using data from the American Community Survey, this study quantifies the number of transit commuters by industry who can get to work because of transit, alongside the wages they earn and the business sales they help generate.
- **Transit's Role in Providing Inclusive Mobility**. A crucial role of transit is providing inclusive mobility, particularly for those who may have limited or no alternative means of transportation. This study provides data on the cohorts for whom transit is especially important, including households without a vehicle, older adults, people with restricted mobility, and young people.
- **Performance Benefits of Transit**. One way of understanding the ongoing value of providing transit services is to consider the counterfactual: "what would happen if transit services were not available?" The study quantifies how transit helps avoid costs to people

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and society relative to other modal alternatives which are often expensive and inconvenient. The evaluation includes user benefits like travel cost savings as well as broader societal effects on safety and the environment. The study also analyzes the value of transit in terms of enabling access to jobs, health care, and other social connections in ways that would not be possible without transit.

• **Transit Agency Highlights.** While transit agencies share commonalities in terms of mission and benefits to Alaskans, every transit agency is unique. Individual agency highlights developed based on interviews with transit agency staff and other community members provide insights into the unique ways in which agencies serve their communities across the state.

To capture stable conditions before disruptions caused by the COVID-19 pandemic, the study relies on quantitative data from the years 2017 to 2019. These findings are supplemented with qualitative insights from interviews on the impacts of the pandemic and how transit agencies responded and adapted to continue to safely serve their riders.

2. Statewide Economic Impacts of Transit Expenditures

Transit agency expenditures create jobs and generate business sales throughout the State of Alaska, including both direct and multiplier effects.

2.1. Understanding Direct and Multiplier Effects

The total economic impacts of operations, maintenance, and capital expenditures by transit agencies are comprised of three distinct categories:

- Activity Directly Supported (Direct): Transit agencies employ workers, pay them wages, and invest in equipment and supplies.
- **Supplier Activity (Indirect):** Transit agencies purchase goods and services from Alaskan companies which in turn employ and pay workers.
- **Spending of Worker Income (Induced):** Transit agency and supplier employees spend their income, generating additional activity within the Alaska economy.

Supplier activity and spending of worker income together comprise multiplier effects. Each type of impact is quantified in terms of both jobs and output (business revenue or sales).

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Figure 3: Direct and Multiplier Effects

2.2. Direct Impacts

The fourteen transit agencies included in this study invested an average of \$62.3 million annually in operating, maintaining, and improving the statewide transit network between 2017 and 2019.¹ This includes \$56.8 million in operations and maintenance expenditures and \$5.5 million in capital projects. Figure 4 and Figure 5 summarize transit agency expenditures by type of expenditure, with operations and maintenance on top and capital on the bottom.

Approximately 71 percent of operating costs are allocated to worker salaries, wages, and benefits. Transit agency staff include both vehicle operators and staff who plan, maintain, and administer transit services. Another 20 percent of operating expenditures cover vehicle operations, fuel and lubricants, and materials and supplies, as shown in Figure 4.

Figure 4: Composition of \$56.8 Million in Average Annual Transit Operations and Maintenance Expenditures by Category (3-Year Average, 2017-2019)



Source: Federal Transit Administration National Transit Database and Alaska DOT Transit Agency Financial Reports. Note: Percentages shown may not sum exactly to 100% due to rounding, but all expenditures are included.

¹ Data on total expenditures from the Federal Transit Administration's National Transit Database to which transit agencies report key financial and performance metrics.



The majority of capital expenditures are used to purchase vehicles and construct stations, with significant additional investment in maintenance buildings and communications equipment (Figure 5).

Figure 5: Composition of \$5.5 Million in Average Annual Transit Capital Expenditures by Category (3-Year Average, 2017-2019)



Source: Federal Transit Administration National Transit Database and Alaska DOT Transit Agency Financial Reports. Note: Percentages shown may not sum exactly to 100% due to rounding, but all expenditures are included. "Other" includes costs such as vehicle branding, shelters, signs, and passenger amenities (e.g., benches) not in passenger stations, as well as other furniture and equipment.

2.3. Total Stimulus Impacts on the State Economy

Figure 6 summarizes the average annual economic impact of transit agency expenditures in Alaska. The annual impact of ongoing transit operations and maintenance expenditures, including multiplier impacts, is 805 jobs, contributing over \$110 million in total output to the state's economy. From 2017 to 2019, transit capital expenditures supported an average of 26 jobs and \$3.7 million in total output each year. The total impact figures demonstrate how every

831 Jobs\$113.9 Million in Annual SalesSupported by Transit Agency Expenditures

on Operations, Maintenance, and Capital Projects.

\$1.9 in Business Sales for Every \$1 Spent within Alaska on transit

dollar that is spent within Alaska on transit generates \$1.9 in business sales.²

² 1.9 represents the ratio between total and direct impacts (\$113.9 divided by \$59.1 million). Excluded from this calculation are expenditures that "leak out" of the Alaska economy such purchases of vehicles manufactured outside the state.



Figure 6: Total Economic Impact of Transit Operations, Maintenance, and Capital Expenditures, Including Both Direct and Multiplier Effects (3-Year Average, 2017-2019)



Source: EBP analysis using TREDTransit.

Direct expenditures support jobs in the transportation industry and construction, as expected. However, the multiplier impacts of supplier purchases and employee spending extend to other industries within the Alaska economy, as shown below in Figure 7. Supplier industries include transportation (including transit services contracted to outside parties) and professional and business services. Employee spending supports activity within the education & health, retail, and other service industries.







Figure 7: Composition of "Multiplier" Job Impacts by Sector

Source: EBP analysis using TREDTransit.

2.4. Alaska Transit Funding by Source and Peer Comparison

Transit agencies in the State of Alaska leverage multiple sources to fund their operating and capital costs. According to data from the 2019 National Transit Database (NTD), the Alaska transit agencies in this study invested over \$59 million in operating expenditures in 2019 alone. As shown in Figure 8, approximately 56 percent of these funds came from local funding sources, followed by federal funds (25 percent), fares and other directly generated sources (18 percent), and state funds (1 percent). Funding sourced from outside of Alaska effectively brings money into the state, supporting Alaska's transit users and the state's economy.

Figure 8 also compares Alaska's funding sources to those used for transit in the six other lowest density states by population in the United States (Idaho, Montana, New Mexico, North Dakota, South Dakota, and Wyoming). Compared to these peers, the Alaska transit agencies received a lower share of state funding than all peer states but New Mexico (which provided zero state funding in 2019). The share of operating expenditures met by state funding is smaller in Alaska than in Montana, North Dakota, South Dakota, and Wyoming. Overall, Alaska transit agencies rely more heavily on local funding, fares, and other directly generated revenue to cover operating expenditures.



Figure 8: Share of Operating Expenditures in Alaska by Funding Source, Compared to Six Low-Density Peer States, 2019



Source: National Transit Database, 2019.

The Alaska transit agencies in this study also invested over \$4.1 million in capital expenditures in 2019, of which 75 percent of funding came from federal sources, 18 percent from local sources, and 7 percent from state sources (Figure 9). Compared to the six peer states, the Alaska transit agencies receive a larger share of capital funds from the state and a smaller share from federal sources.





Source: National Transit Database, 2019.



2 Percent State Funding

State sources accounted for just 2 percent of overall funding for the Alaska transit operators in this study in 2019. Local sources account for the greatest share of funding available for Alaska transit agencies. About 65 percent of all local funding in Alaska in 2019 came from general revenue funds allocated to the Municipality of Anchorage's Public Transportation by local government through its annual budgeting process. State sources accounted for just 2 percent of overall transit funding in Alaska in 2019.

Alaska transit agencies received approximately 28 percent of their total operating and capital funding from federal sources in 2019. Over half of the federal funding for Alaska transit agencies came from the Federal Transit Administration (FTA) Urbanized Area Formula Program (5307) and Bus & Bus Facilities (5339) program, which mostly went to agencies that serve Alaska's cities. The FTA Rural Program (5311) provided 36 percent of federal funds received by transit agencies in Alaska, funding the operations and capital improvements of agencies that serve rural areas. The remaining 13 percent came from other federal funding sources, including other sources from FTA and USDOT.

Approximately 18 percent of funding for Alaska transit agencies in 2019 was directly generated by the transit agencies. Of directly generated funds, 82 percent were from fare revenues. Approximately 3 percent was generated by advertising revenues, while the remaining 15 percent was generated by other sources, including donations and bond proceeds.

2.5. Benchmarking Ridership and Financial Productivity

Ridership per capita is an indicator of the extent to which people make use of transit services in a given area. Figure 10 shows the average ridership per capita for Alaska and six low population density peer states in 2019. The data include all transit agencies in the State of Alaska except The Alaska Railroad because of its unique operating characteristics and market. The Alaska Railroad provides both passenger and freight intercity service and as such is not comparable to the other local and regionally focused passenger transit services. The comparison state data similarly exclude rail modes, specifically, commuter rail service in New Mexico. Alaska has the highest ridership per capita among the seven states, followed by New Mexico. Given its population size and density, Alaska succeeds in attracting significant ridership when compared to other low-density peers. A contributing factor in this performance is likely to be the significant usage by tourists visiting the state in addition to use by residents.



Figure 10 Ridership Per Capita: Alaska and the Peer Low-Density States, 2019

Source: National Transit Database 2019. Excludes rail service.

Operating expenditures per trip provide an indicator of financial productivity, capturing how much it costs to serve a given number of trips. As shown below in Figure 11, Alaska transit agencies in this analysis invested \$9.72 per trip in operating expenditures in 2019. When compared with the other six low-density states, the Alaska transit agencies in this study conducted the second most passenger trips in 2019 and have the third-highest operating expenditures per trip. This means that Alaska transit agencies on the whole are serving riders in a cost-effective manner when compared to other low-density peer states.



Figure 11. Operating Expenditures per Trip, 2019

Source: National Transit Database 2019. Excludes rail service.



Though operating costs per trip for the Alaska transit agencies in this analysis are similar to that of other low-density states, Alaska transit agencies spend only \$0.69 per trip on transit capital investments, the lowest among the low-density states as shown in Figure 12. North Dakota, which conducted the second least passenger trips in 2019, invested the most in both operating and capital expenditures per trip. This indicates that Alaska transit may be underinvested in capital projects and transit agencies could struggle to keep up with demands to maintain their systems and fleets in a state of good repair. Consequences of underinvestment can include increased risk of vehicles breaking down leading to degradation of service for passengers, higher emissions from aging vehicles, and safety hazards.



Figure 12. Capital Expenditures per Trip, 2019

Source: National Transit Database 2019. Excludes rail service.

3. Transit Commuters and the Alaskan Economy

Transit plays a key role in connecting Alaskan businesses with their workforce across a range of industries. The American Community Survey Public Use Microdata Sample, a product of the U.S. Census Bureau, collects data on a person's reported commuting mode, earnings, and the industry in which they are employed.³ In Alaska, this data counts approximately 5,600 workers in the state that use transit to reach their jobs. These individuals earn \$203 million in wages each year. While transit commuters comprise only 2 percent of all those traveling to work in Alaska, they nevertheless play a significant role in the state economy. In fact, they facilitate approximately

³ PUMS ACS 2015-2019 data files (and ACS2015_2019_PUMS_README.pdf) from US Census ACS: https://www.census.gov/programs-surveys/acs/microdata/access.2019.html

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\$941 million in annual business sales.⁴ Thirty-three percent of transit commuters are part-time workers, defined as people who work less than 35 hours per week.⁵

Table 1 provides additional detail on the industries in which transit commuters work. These include service sectors such as retail, accommodations and food services, education, health care, public administration, and professional, scientific, and technical services. Other industries such as transportation and warehousing,

5,645 Workers

Can get to work because of transit

\$203 Million in Annual Wages Brought home by transit commuters

\$941 Million in Annual Sales Facilitated by transit commuters

2 Percent

Transit commuter share, statewide

manufacturing, construction, and mining also rely on transit for access to their workforce.

| Major Industry | Transit Commuters | Averages Wage ^{1,3} | Wages (Millions) | Sales (Millions) ² | Transit Mode Share |
|---|----------------------|---------------------------------|---------------------|----------------------------------|--------------------------|
| Retail Trade | 822 | \$19,000 | \$16 | \$50 | 2% |
| Accommodation and Food Services | 760 | \$30,000 | \$23 | \$80 | 3% |
| Transportation and Warehousing | 601 | \$31,000 | \$18 | \$82 | 3% |
| Manufacturing | 472 | \$29,000 | \$14 | \$124 | 4% |
| Educational Services | 409 | \$13,000 | \$5 | \$16 | 1% |
| Health Care and Social Assistance | 392 | \$44,000 | \$17 | \$45 | 1% |
| Public Administration | 392 | \$62,000 | \$24 | \$46 | 1% |
| Construction | 378 | \$61,000 | \$23 | \$64 | 2% |
| Mining | 347 | \$87,000 | \$30 | \$293 | 4% |
| Professional, Scientific, and Technical Services | 323 | \$57,000 | \$18 | \$56 | 2% |
| Administration, Support, Waste Management, and Remediation Services | 199 | \$18,000 | \$4 | \$13 | 3% |
| Arts, Entertainment, and Recreation | 177 | \$17,000 | \$3 | \$18 | 3% |
| Other Sectors | 373 | \$20,000 | \$8 | \$53 | 1% |
| Total | 5,645 | \$36,000 | \$203 | \$941 | 2% |

Table 1: Transit commuters by wages earned, sales supported, and commute mode share

Source: EBP analysis using 2015-2019 American Community Survey 5-Year Estimates, Public Use Microdata Sample. Sales estimates are based on ratios from the IMPLAN model's 2019 industry detail and adjustment factor from the BEA to translate wage and salary income into total labor income.

Notes: (1) Wages or salary income in the past 12 months, in constant dollars, rounded to the nearest thousands; (2) Also called business revenues or total output; (3) Industry-specific notes: Wages reported in PUMS for Food and Beverage Stores, General Merchandise Stores, Administrative and Support Services, and Motion Picture and Sound Recording Industries are assumed to represent part-time and/or seasonal employment. Wages for Construction and Social Assistance were adjusted to all industry values from PUMS to correct for atypical values reported in the small sample of transit commuters.

⁴ Sales estimates are based on ratios from 2019 regional IMPLAN industry economic data and adjustment factor from the Bureau of Economic Analysis (BEA) to translate wage and salary income into total compensation.

⁵ Part-time work definition per U.S. Census: Frequently Asked Questions (FAQs) about Labor Force Statistics (census.gov)



In addition to the quantitative findings summarized above, interviews with individual staff from transit agencies across the state also highlighted businesses that rely on a transit commuter workforce. Figure 13 provides specific examples.





Source: Interviews with Transit Agencies.

4. Transit's Role in Providing Inclusive Mobility

28 Percent

Of AK transit commuters live in households without a car available

\$24,826

Median income of AK transit commuters

52 Percent

Of AK transit commuters identify as non-white

Alaska's transit agencies provide transportation opportunities across the state, connecting residents and visitors to essential services and destinations. Particularly during the pandemic, transit provided (and continues to provide) a lifeline for residents who lack other means of transportation to access medical appointments, reach job opportunities, and acquire groceries.

Although transit commuters account for a small share of total commuters in Alaska, there is a strong reliance on transit by people who do not own a vehicle, those who are

lower-income, and non-white residents of the state (Table 2). Over a quarter (27.8 percent) of transit commuters have 0 available household vehicles, compared to only 5 percent of all Alaskan commuters. These households can avoid the annual cost of car ownership and use their income for other of their needs and wants. According to AAA, the annual cost of car ownership in 2020 was approximately \$16,154 assuming 15,000 miles of driving per year. This includes ownership costs such as insurance, license/registration fees, taxes, depreciation, and financing. It also



includes per mile fuel and maintenance costs.⁶ Relatedly, the median income for transit commuters was approximately \$25,000 (\$24,826), while the median income for total commuters was roughly \$20,00 more (\$44,025). In addition, over half (52.3 percent) of transit commuters identify as non-white, compared to a third (33.8 percent) of total commuters.

Table 2: Demographics of Alaska transit commuters compared to total Alaskan commuters

| Demographic | Transit Commuters | Total Commuters | | |
|---|-------------------|-----------------|--|--|
| Zero Household Cars Available (%) | 27.8% | 5.4% | | |
| Non-White Racial/Ethnic Composition (%) | 52.3% | 33.8% | | |
| Median Income (2019 \$) | \$24,826 | \$44,025 | | |

Source: American Community Survey (ACS) 5-Year Estimates Subject Tables, 2015 – 2019. S0802: Means of Transportation to Work by Selected Characteristics. US Census.

Figure 14 further illustrates the relative affordability of transit compared to owning, operating, and maintaining a car. While car ownership could require up to 39 percent of the median income available to transit commuter households, two annual transit passes in Anchorage would only account for 3 percent of that same budget.

Figure 14: Comparison of Car Ownership and Transit Affordability to Median Household Income of Transit Commuters



Source: Annual Cost of Car Ownership from AAA (2020). Anchorage Full Cost Annual Transit Passes are \$660 each, with an assumed two commuters per household. Median Income of AK Transit Commuters from ACS 2015 – 2019.

⁶ 2020-Your-Driving-Costs-Brochure-Interactive-FINAL-12-9-20.pdf (aaa.com)

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Transit provides additional travel opportunities for older adults and younger people who may or may not be in the workforce. For children and younger adults, particularly for those who are unable to drive, transit provides a means to travel to school, after-school activities, and recreational opportunities. For older adults, transit can provide a social lifeline that enables independence, fosters connections with other riders, and facilitates

24 Percent

Of AK transit trips by young people under age 16

34 Percent Of AK transit trips by people who are 60+ years of age

mobility for elders seeking essential services or socialization activities.

According to the National Household Travel Survey (2017), 24 percent of transit trips (by commuters and non-commuters, alike) in Alaska are by people below the age of 16, compared to 18 percent for people traveling by all modes. Similarly, 34 percent of transit trips are by people aged 60 and above, while less than half (15 percent) of total trips are by people in the 60+ age group (Figure 15). Alaska has the fastest growing senior (65-plus) population per capita of any state nationwide.⁷ Alaska's 60-plus population grew 62.3 percent from 2010 to 2021.⁸ A 2018 survey of Alaskans aged 55 years and older identified transportation as one of the top five concerns or respondents.⁹ There is a growing need for transportation options, such as transit, that meet the needs of older adults.



Figure 15: Age distribution of Alaska transit trips (commute and non-commute) compared to all modes

Source: US Department of Transportation (US DOT) Federal Highway Administration (FHWA), 2017. National Household Travel Survey (NHTS). Count of Public Transit Usage by Respondent Age per State.

⁷ 2020 Profile of Older Americans, Administration on Aging cited in Alaska Commission on Aging (ACoA) Senior Snapshot Older Alaskans in 2020/21. <u>https://dhss.alaska.gov/acoa/Documents/ACoA_seniorsnapshot_2022.pdf</u>

⁸ Senior Snapshot Older Alaskans in 2020/21. <u>https://dhss.alaska.gov/acoa/Documents/ACoA_seniorsnapshot_2022.pdf</u>

⁹ The Alaska State Plan for Senior Services FFY 2020-2023



5. Performance Benefits of Transit

One way of understanding the ongoing value of providing transit services is to consider the counterfactual: "what would happen if transit were not available?" This chapter quantifies how transit helps people and society avoid costs when compared to other modal alternatives which are expensive or inconvenient. It also analyzes the value transit provides in terms of enabling trips to jobs, healthcare, or other social connections in ways that would not be possible without transit.

5.1. Methodology

5.1.1. Available Modal Alternatives and Travel Characteristics

The analysis relies on survey data to identify the modal alternatives that transit riders would rely on in the absence of transit services. Where available, the analysis leverages survey data from individual transit agencies to define the profile of these alternatives. In cases where transit agencies have not conducted rider surveys or where they only have partial information, the analysis relies on a national profile of modal alternatives from the American Public Transit Association (APTA), as shown in Figure 16.¹⁰ Unless more specific information is available, the analysis also assumes that driving alone, walking, and biking are not generally reasonable alternatives for demand response riders due to age or disabilities.

While the analysis is based on the characteristics of these various alternatives, there may be cases where even driving, walking, and biking are functionally infeasible due to seasonal weather and lack of access to other modal facilities (like sidewalks or bicycle lanes). The analysis is therefore conservative in assuming these options are available.

The study also relies on data from the NTD, including transit trips, vehicle revenue miles and hours to estimate transit speeds, safety statistics, fare revenue, and operating and capital costs. As a "Full Reporter" to the NTD,¹¹ the Municipality of Anchorage's Public Transportation (People Mover and AnchorRIDES) reports passenger miles traveled, meaning average miles per trip can be calculated. For the remaining transit agencies, which are "Reduced" urban or "Rural" reporters to NTD, the analysis uses average transit trip length from the 2017 National Household Travel Survey in Alaska – except in cases where the specific review of transit services necessitated an adjustment (see Table 5 in the Appendix).

¹⁰ APTA. Economic Impact of Public Transportation Investment. 2020 Update. <u>APTA-Economic-Impact-Public-Transit-2020.pdf</u> ¹¹ Large urban transit agencies are required to report additional data to the National Transit Database. For more information see "Reporter Types" in: <u>2021 NTD Policy Manual (Full Reporting) v1.1 (dot.gov)</u>

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Figure 16: Available Modal Alternatives Derived from National APTA Analysis

Source: TNC = Transportation Network Companies, such as Uber or Lyft. Derived from APTA. Economic Impact of Public Transportation Investment. 2020 Update. The bus profile redistributes the "other" category in the APTA report to the rest of the alternatives. Drive, walk, and bike are removed from demand response.

5.1.2. Transportation System User Benefits

The first set of outcomes considered are those that affect users of the transportation system, including both transit riders themselves and those that they may have no choice but to rely on in the absence of transit. Benefit categories include:

- **Travel time:** Travel time is valued based on USDOT guidelines for per hour values of time,¹² as well as wage rates for taxi drivers from the Bureau of Labor Statistics. The avoidance of walking, biking, and waiting time is valued at a higher rate than is time spent inside a vehicle. Travel time effects reflect differences in modal speeds (transit is generally slower than driving, but walking is slower than transit) as well as the additional time that others would spend carpooling with transit riders in transit's absence.¹³
- Vehicle Operating Costs: Vehicle operating costs for driving are calculated on a per-mile basis using rates recommended by USDOT and derived from the American Automobile Association.¹⁴ Operating costs include gasoline, maintenance, tires, and depreciation.

¹² USDOT. Benefit-Cost Analysis Guidance for Discretionary Grant Programs. March 2022. <u>Benefit Cost Analysis Guidance 2022</u> <u>Update (Final).pdf (transportation.gov)</u>

¹³ The analysis assumes that the driver of a carpool with go 50% further than the distance of the replaced transit trip.

¹⁴ USDOT. Benefit-Cost Analysis Guidance for Discretionary Grant Programs. March 2022. <u>Benefit Cost Analysis Guidance 2022</u> <u>Update (Final).pdf (transportation.gov)</u>; Derived from American Automobile Association, Your Driving Costs – 2020 Edition (2020) <u>https://newsroom.aaa.com/wp-content/uploads/2020/12/2020-Your-Driving-Costs-Brochure-Interactive-FINAL-12-9-20.pdf</u>



- Fare Savings: Fare savings are calculated by comparing the average fare revenue per trip paid by passengers and the cost of an equivalent trip using taxis or other "Transportation Network Company" (TNC) services such as Uber and Lyft. The analysis uses specific taxi/TNC pricing for each transit agency's service area where available and uses statewide averages otherwise.¹⁵
- **Reliability Benefits:** While not quantified, interviews conducted for this study highlighted how one of the benefits of transit in Alaska is providing a reliable mode during winter months and harsh weather when personal vehicles may become unreliable.

5.1.3. Broader Societal Benefits

In addition to the user benefits described above, the analysis also considers the following broader societal effects:

- **Safety:** Transit is a safer mode than driving personal vehicles. The analysis uses historical counts of transit fatalities, injuries, and other incidents reported by Alaska transit agencies to the NTD and per-mile crash rates for private vehicular travel from the Alaska Highway Safety Office and the Bureau of Transportation Statistics' (BTS) National Transportation Statistics (NTS). Avoided crashes are quantified using valuation factors set by USDOT for avoided loss of life, injury, and property damage.¹⁶
- **Emissions:** The analysis values the environmental and social costs of changes in emissions of volatile organic compounds (VOCs), nitrogen oxides (NO_x), sulfur dioxide (SO₂), fine particulate matter (PM_{2.5}), and carbon dioxide (CO₂). Emissions rates are derived from the EPA's MOVES3 model as well as fuel consumption rates by vehicle type. Per metric ton valuation factors are sourced from USDOT.¹⁷

5.1.4. Access and the Value of Enabled Trips

The third component of benefits considered is the value of providing affordable and accessible transportation options to riders that otherwise may not be able to meet their travel needs to reach essential destinations and services. This component of the analysis relies on the information described in section 5.1.1 to estimate the number of enabled trips by trip purpose and then calculates the value to society as follows:

¹⁵ Traditional benefit-cost studies have sometimes considered this type of effect to be a transfer between parties. They are included here to provide a comprehensive picture of out-of-pocket costs savings to travelers.

¹⁶ USDOT. Benefit-Cost Analysis Guidance for Discretionary Grant Programs. March 2022. <u>Benefit Cost Analysis Guidance 2022</u> <u>Update (Final).pdf (transportation.gov)</u>

¹⁷ NOx, SO2, PM2.5 factors from USDOT BCA Guidance 2022. VOC factor from 2018 USDOT Guidance, Updated to 2020\$.

- Enabled Work Trips and Avoided TANF/SNAP Costs: According to rider surveys, some current transit users would not be able to travel to work without transit and thus would possibly not be able to maintain employment, requiring other forms of government assistance. Enabling commuting trips, therefore, is valued based on estimated reductions in spending through the Temporary Assistance for Needy Families (TANF) program and the Supplemental Nutrition Assistance Program (SNAP).¹⁸
- Enabled Medical Trips: Missed health care trips can mean that people with chronic conditions such as chronic obstructive pulmonary disease (COPD), diabetes, asthma, and others, are faced with poorly rather than well-managed health care. This may result in a greater chance of acute episodes (like an asthma attack or heart attack), hospitalization, and degraded quality of life. Additionally, missed trips for preventative care such as vaccinations can yield poorer health outcomes and higher medical costs. Enabled medical trips are valued based on cost differences in health care and valuation of impacts on quality of life.¹⁹
- All Other Enabled Trips: All other enabled trips were valued in terms of "consumer surplus," an economic measure of the wellbeing that people gain from a good or service, in this case, transit. Consumer surplus per trip is estimated using the "rule of half": the analysis assumes that riders value their trips at least as much as the fare they paid to make them, but not as much as the cost of the next available alternative (assumed to be taxi). Therefore, the value of a trip for an average transit user is about half the difference between the taxi fare (the next best option) and the average transit fare paid per trip. While the benefits that riders gain from the ability to make a trip vary by person and by purpose of the trip, this method represents a way to quantify overall benefits on average.

In addition to these quantitative metrics, it is also important to recognize how transit's role in enabling trips benefits the entire Alaskan community in ways that may not be fully quantified but are vital to the state. Table 3 describes some of the community benefits of enabled trips, building on prior research by Goldsmith et al.

¹⁸ Methology follows that defined in Godavarthy, et al. Cost-Benefit Analysis of Rural and Small Urban Transit. National Center for Transit Research. 2014. Expenditures derived from <u>Characteristics and Financial Circumstances of TANF Recipients Fiscal Year</u> (<u>FY</u>) 2019 (hhs.gov) for Alaska and include SNAP and TANF Basic Assistance. Analysis assumes 260 workdays per year, 2 trips per day for each household, yielding a combined \$38.98 of avoided costs per one-way linked trip.

¹⁹ A value of \$357 per one-way linked trip is applied based on Godavarthy, et al. (2014) as developed by Hughes-Cromwick, P., R. Wallace, H. Mull, J. Bologna, C. Kangas, J. Lee, and S. Khasnabis. 2005. Cost Benefit Analysis of Providing Non-Emergency Medical Transportation. TCRP Web-Only Document 29 (Project B-27): Contractor's Final Report, Transit Cooperative Research Program, Transportation Research Board of the National Academies.



Table 3: Community Benefits from Transit Access and Enabled Trips

| Type of Access | Beneficiaries |
|------------------------------------|---|
| Work | Workers benefit from earning income and improved quality of life. Employers benefit from access to a larger labor pool, decreased turnover, reduced absenteeism, and in some cases reduced parking costs. The entire economy benefits from having more people working and fewer people depending on public support. |
| Medical Services | People benefit from access to medical care. This improves the quality of life and reduces long-term medical costs. The entire community benefits from improved public health. |
| Education | Students benefit from better access to schools and universities and an improved outlook in terms of professional opportunities and future earnings prospects. Employers and the overall economy benefit from having an educated and skilled workforce. |
| Shopping / Eating Out | People can access shopping and dining opportunities. This improves the quality of life by broadening the range of shopping/dining choices. The entire economy benefits from spending in the local economy. |
| Recreation/Tourism Destinations | Budget-conscious tourists and residents benefit from affordable access to recreational opportunities and tourist destinations. This supports the overall wellbeing of Alaskans and the Alaskan tourism industry. |
| Social Connections and Activities | People can travel to meet with family and friends. This improves quality of life by allowing people to maintain social connections to each other and their community. |

Source: Adapted from Goldsmith, S., Killorin, M., and Larson, E. The Economic Benefits of Public Transportation in Anchorage. May 2006. Institute of Social and Economic Research, University of Alaska Anchorage.

5.2. Performance Benefits Results

1.1 Million

trips enabled by Alaska transit agencies that would not be possible otherwise.

\$117 Million In average annual benefits from Alaska transit Between 2017 and 2019, transit in Alaska enabled upwards of 1.1 million trips annually that would not be possible without transit services. Based on available survey data, it is estimated that work trips are the largest category of trips made possible (389,000 per year), followed by trips made for shopping or eating out (245,000) and recreation or social purposes (220,000). Other categories enabled include those to medical or dental appointments (97,000) as well as other

destinations (68,000), as shown in Figure 17. These results include figures for all fourteen of the Alaska transit agencies of this study except Interior Alaska Bus Lines and the Inter-Island Ferry Authority, as these transit agencies serve very different markets and do not have the same kind of data available for analysis.





Figure 17: Average Annual Transit Enabled Trips by Trip Purpose (2017-2019, in thousands)

Source: EBP Analysis. Results include all Alaska transit agencies examined in this study except Interior Alaska Bus Lines and the Inter-Island Ferry Authority.

Alaska transit provides approximately \$117 million in annualized benefits to riders, visitors, and broader Alaskan society. These include transportation system user benefits, broader societal benefits, and the benefits of enabled trips for people who would simply not be able to travel were transit unavailable. These benefits significantly outweigh annual operating, maintenance, and capital expenditures in the state to provide transit services for the analyzed agencies. Table 4 provides details on results by individual benefit category. Because of data limitations, Gulkana Soaring Eagle Transit and Interior Alaska Bus Lines are not included in these benefit calculations, meaning that the results are conservative. Also not included is the Inter-Island Ferry Authority (IFA) because of the very different nature of its services and benefits. Details on the value of the IFA are provided in the agency's highlight.



Table 4: Average Annual Transit Benefits and Costs in Alaska (2017-2019)

| Benefits Category | Total in Millions | | | |
|-------------------------------------|-------------------|--|--|--|
| Transportation System User Benefits | | | | |
| Travel Time | \$17.66 | | | |
| Vehicle Operating Cost | \$14.58 | | | |
| Fare Savings | \$13.94 | | | |
| Broader Societal Benefits | | | | |
| Safety & Environmental | \$14.91 | | | |
| Enabled Trips | | | | |
| Work - Avoided TANF/SNAP | \$15.13 | | | |
| Medical | \$34.68 | | | |
| Consumer Surplus (All Other Trips) | \$6.19 | | | |
| Total Annual Benefits | \$117.10 | | | |
| Total Annual Costs | \$56.44 | | | |

Source: EBP Analysis. Results exclude Gulkana Soaring Eagle Transit and Interior Alaska Bus Lines due to data limitations (analyzed separately on a per-trip basis). The Inter-Island Ferry Authority was analyzed separately. Annualized results represent averages across 2017-2019, except Fairbanks MACS and VanTran which exclude 2017 due to the change in modal accounting in NTD between 2017 and 2018.

6. Transit Agency Highlights

The following section includes one-page summaries for each of the transit agencies included in this study. Each transit agency profile summarizes key statistics about the agency including modes operated, average annual ridership, the economic impacts of agency expenditures, and the performance benefits of transits. Additionally, findings from interviews are summarized to highlight the diverse ways in which Alaska transit agencies serve their riders and communities.



Fixed-route bus, Demand response, Vanpool

0

3,644,267 2017-2019 Annual Average Ridership

Spending Impacts Annually



Performance Benefits Annually

720,208 Trips enabled



\$3.3 M Consumer surplus

\$8.0 M TANF/SNAP Savings

\$28.1 M Medical

\$8.7 M Environmental & Safety

\$8.3 M Travel Time & Vehicle Operating Cost

\$5.2 M Fare Savings

\$61.7 M Annual Benefits \$32.8 M Annual Costs

Anchorage People Mover and AnchorRIDES



The Municipality of Anchorage operates a fixed-route service with 14 routes (People Mover), along with two commuter bus routes, on-demand paratransit service (AnchorRIDES), and a car or van share service. The primary service area is Anchorage, with commuter routes also serving South Anchorage and the Eagle River area.

The transit services provide affordable access to job centers, schools, and a variety of essential services. One reason people who work in the University Medical District and downtown choose transit is to avoid driving in congestion. Secondary students in the Anchorage school district use transit to get to school and ride for free through a contracted program. On Wednesdays, seniors ride for free and use transit to access services and community programs, many of which are offered at the public libraries and city hall. People with disabilities will also use transit to access services and programs. The transit service runs a Universal Pass Program which allows riders to simply show their university or employee ID to ride. The University of Alaska, Providence Hospital, and some private employers participate in this program to help manage parking and congestion in the city. While taxis and similar options like Uber and Lyft do exist as alternatives, they are not always accessible vehicles and can be quite expensive. Walking or biking is not always a viable option if the destination is far away, winter maintenance is lacking, or weather is inclement.

Transit plays an important role in supporting the local economy by transporting workers and customers to where they need to go. Some businesses in less-served areas of the city have reported that they've had issues with hiring due to a lack of transit access. During the height of the COVID-19 pandemic, the fixed-route service was stopped for a few months and the city only ran essential trips through its paratransit service. The public's response during this disruption underscored how many people rely on transit each day to access their jobs, grocery stores, medical appointments, the pharmacy, and more essential services. Fixed-route service is now fully restored and serving the community.



Modes Offered Fixed-route bus

24,255 2017-2019 Annual Average Ridership

Spending Impacts Annually



Performance Benefits Annually



\$396 K Annual Benefits \$315 K Annual Costs

Bethel Transit Bus System



The Bethel Transit Bus System operates a fixed bus route through the City of Bethel. The bus route provides transportation access to residents of the city as well as to members of 56 surrounding villages for which Bethel is a hub for essential services.

Bethel's Transit System serves city residents and people from nearby villages of varying ages. The service provides access to jobs, grocery stores, shopping centers, the post office, and medical care facilities, which is particularly important for those who live outside of the city and rely on an affordable means to connect to these necessities. Regular riders say that the bus system is a vital asset as their mode of transportation and that it allows them freedom of mobility. Public transit is a much more affordable option for locals than taxis, which can be expensive and often make multiple stops and carry multiple passengers anyway. The bus service is also an affordable alternative to owning and maintaining a personal vehicle. Car ownership varies within the service area, being higher among city residents but lower in the surrounding villages where people are more likely to rely on snow machines, 4wheelers, and personal boats for transportation. The bus service became fare free during the COVID-19 pandemic and remains that way until further notice.

The bus system plays an important role in supporting the local economy and public health within the community. Bethel's Transit Bus System provides local retail businesses in the City of Bethel with access to both customers and employees. During the COVID-19 pandemic, in addition to eliminating fares, the bus service also provided free access to vaccination sites. Looking forward, Bethel is hoping to add a few new buses to its service to increase frequency and improve upon the positive impact that it already has within the city and surrounding communities.

Image credit: City of Bethel.



Modes Offered Demand response



28,754 2017-2019 Annual Average Ridership

Spending Impacts Annually



22 Jobs

\$2 M Output (Revenue)

Performance Benefits Annually

8,478 Trips enabled
\$73 K Consumer surplus
\$162 K TANF/SNAP Savings
\$61 K Medical
\$123 K Environmental & Safety
\$450 K Travel Time
\$119 K Vehicle Operating Cost
\$190 K Fare Savings

\$1.2 M Annual Benefits\$1.1 M Annual Costs



Central Area Rural Transit System



Central Area Rural Transit System, Inc. (CARTS) provides demand response service to the central Kenai Peninsula. The service area includes the cities of Kenai and Soldotna, the communities of Funny River, Kasilof, Nikiski, and Sterling, and the areas between. The zones are sometimes extended to Clam Gulch if the driver is already headed that way (towards Kasilof).

CARTS provides reliable transit access to work, medical appointments, shopping, recreation, and school/college, as well as safe and affordable travel opportunities for riders with disabilities, riders who cannot or choose not to drive, and entrylevel workers. For many, CARTS provides the sole travel option on the peninsula. According to an on-board survey conducted in January 2018, 79 percent of riders chose to ride transit because it was the only transportation they had, while 31 percent chose it for convenience, and 29 percent chose transit as it was less expensive than driving. Although a local taxi company operates on the Kenai Peninsula, the taxi fees can be cost prohibitive, especially for entry-level workers.

During the COVID-19 pandemic, CARTS operators limited their demand response service to essential trips only, but soon realized that most of their trips were considered essential. Fortunately, CARTS prepared prior to the pandemic to ensure customers could conduct business (registration, ride reservations, purchasing fares) over the phone or online, so CARTS was able to continue providing essential service trips safely. As a vital service provider to the local economy, CARTS further supports the community (pre- and during the pandemic) by purchasing goods and services from local vendors.

Photo credit: Jennifer Beckmann, CARTS.



Fixed-route bus, Demand response



486,947 2018-2019* Annual Average Ridership

Spending Impacts Annually



98 Jobs

\$14 M Output (Revenue)

Performance Benefits Annually

43,749 Trips enabled \$181 K Consumer surplus **\$715 K** TANF/SNAP Savings \$1.3 M Medical **\$951 K** Environmental



\$3.7 M Travel Time

\$899 K Vehicle

Operating Cost

\$1.0 M Fare Savings

\$8.7 M Annual Benefits \$7.5 M Annual Costs

Fairbanks MACS and Van Tran



Fairbanks North Star Borough administers and operates the Metropolitan Area Commuter System (MACS), a fixed-route bus service, and the Van Tran system, a paratransit demand response service for those with limited mobility who are unable to use the fixed-route bus service. These transit systems serve most of the urban area within the borough.

Riders use the transit systems to get around town and access important destinations including shopping, medical appointments, social services, recreation, and getting to school or work. Seniors and those with disabilities use Van Tran to have independence in their mobility and to access essential services. Many lowincome residents do not own a vehicle. and rely on transit to commute to work

and school. Fairbanks has a large university student population, due to University of Alaska Fairbanks, who do not own vehicles and therefore rely on MACS. There are also Army and Airforce bases in the area. People stationed at these bases frequently do not own vehicles and therefore benefit from having transit service available. MACS also services tourists, including visitors to Pioneer Park, a historical theme park in the heart of the citv.

Public transit is an affordable and critical service for those who do not own a car, or whose car may not be working properly due to cold temperatures. Alternatives available to transit users are often less practical, such as carpooling, or unaffordable, such as taxis and similar services like Uber/Lyft. Walking or biking may not be feasible or comfortable for long trips and during cold weather. Overall, MACS and Van Tran are important services that promote transportation affordability, equity, and safety, and that serve residents and visitors alike.

Photo credit: Fairbanks North Star Borough.

*Performance analysis based on 2017-2019, after Commuter Bus Service was Reorganized into Overall Bus in NTD Data.





Modes Offered Flex-route bus



85,741 2017-2019 Annual Average Ridership

Spending Impacts Annually



8 Jobs



\$741 K Output (Revenue)

Performance Benefits Annually



\$1.98 M Annual Benefits \$0.42 M Annual Costs

Glacier Valley Transit

Glacier Valley Transit (GVT) provides flexroute service (modified fixed-route service where the bus can be diverted for ondemand service as well) to the town of Girdwood, AK, including service to the train depot, downtown Girdwood, and the Alyeska Resort, Alaska's largest ski area.

Residents and out-of-state visitors use GVT to commute to work or engage in recreational activities, including skiing, shopping, or dining at local restaurants. Walking, biking, and driving provide alternate modes of transportation around the resort town, but few transit riders own a vehicle of their own due to the high cost of ownership. GVT provides a safe and reliable option for regular riders to access work and recreation, as well as temporary riders who rely on transit when their car needs repairs or during inclement weather. Riders chose transit not only due to its affordability and safety benefits but also due to limited parking in and around Girdwood.

It is very difficult for residents and out-ofstate visitors lacking a car to access local businesses away from the resort, and as such, GVT provides vital business and tourism connections to the town of Girdwood. In the future, GVT plans to conduct a feasibility study for a commuter route as well as a non-emergency medical service route to Anchorage, with the hopes of increasing economic growth in Girdwood, and providing greater access in and out of Girdwood for residents and tourists, alike.



Photo credit: Glacier Valley Transit. https://glaciervalleytransit.com/flex-route/



Fixed-route bus, Demand response, Call-out service



8,071 2017-2019 Average Annual Ridership

Spending Impacts Annually



10 Jobs



\$665K Output (Revenue)

Performance Benefits

(2017-2019)



2,211 Trips enabled annually

Safety:



0 Transit Fatalities, Injuries, or Incidents Safer than driving

Affordability:



E.g., Glenallen-Anchorage: \$65 Soaring Eagle Transit \$75 Interior Alaska Bus Lines

\$81 Private vehicle permile operating costs

Soaring Eagle Transit



Gulkana Village Council operates Soaring Eagle Transit, which provides fixed-route, demand response, and call-out services. Soaring Eagle Transit serves the Copper River Basin between Glennallen and Copper Center, offers service to Anchorage and Valdez, and provides a call-out service that operates within an approximate 50-mile radius from Gulkana.

Locals and tourists use Soaring Eagle Transit to access jobs, schools, essential services, shops, and recreational areas such as national parks and areas for kayaking. Workers throughout the Copper River Basin use the transit service to get to work, including health care workers in Tazlina, Gulkana Village Council workers traveling to different villages, and seasonal fishery workers travelling between Anchorage and Valdez. In addition to transporting employees, Soaring Eagle Transit supports local businesses by providing transportation to customers. Elders and other locals use the transit service to fulfill essential needs, such as getting to grocery stores and medical appointments. Riders can alternatively use Interior Alaska Bus Lines to get to Anchorage. Otherwise, if a rider does not have access to a car, there are not many other transportation alternatives. Transit is more affordable than driving, particularly when gas prices increase, and is more reliable in the winter when personal vehicles may have issues.

Not only is Soaring Eagle Transit an important support to the local economy and a critical service connecting people to essential services and recreation, but it has also been a vital tool in combatting social isolation throughout the region. Many elders use the transit service to visit family, friends, and to engage with other members of their community. Supporting social connections was especially important during the COVID-19 pandemic when those living in remote areas became further isolated. Many riders depend on transit as a critical service that provides them with physical and emotional support, social interaction that energizes them, and that ultimately gets them where they need to be.

Photo Credit: <u>Rates - Public Transit Service</u> (gulkanacouncil.org). Note: Estimation of annual performance benefits was not feasible due to data limitations.



Modes Offered Ferryboat



42,648 2017-2019 Average Annual Ridership

Spending Impacts

Annually 2017-2019 (Operating, Maintenance, and Capitral Expenditures)



58 Jobs

\$8.5M Output (Revenue)

Select Facts & Figures 2019



2,900 Tourists and hunters to Prince of Wales Island

\$11.1 M Direct visitor spending



1,530 Patients traveling to Ketchikan and Sitka for medical purposes

\$12.1 M Ex-vessel value of seafood shipped

Source: 2019 Figures from Alaska's Inter-Island Ferry Authority by the Number 2020, by Rain Cost Data.

Inter-Island Ferry Authority



The Inter-Island Ferry Authority (IFA) provides ferry access for people and vehicles between Hollis and Ketchikan. The ferries (one primary, one in reserve in case of issues) have a capacity of 165 people and 15-19 vehicles, and operate daily, 3-hour, round-trip service. Although Alaska Air operates out of Ketchikan, it costs passengers \$135 to travel from Hollis to Ketchikan by plane,¹ and \$52 to travel by ferry.

Travelers use IFA to access medical appointments and the airport, to commute to work, and to transport seafood and freight for the Alaskan fishing & seafood industry. Large contractors based out of Ketchikan that serve the island rely on IFA service, as well as tourists traveling to Ketchikan for hunting/fishing, or cultural events, such as the Tlingit Native Alaskan totem pole raising ceremony. Younger students and older adults particularly rely on IFA service, as the ferry offers a 20% discount for school-aged children and receives a grant from the state of AK to provide free service to veterans accessing medical appointments. Flying is the only alternative to ferry transport, but airlines won't operate in inclement weather, making this service alternative unreliable as well as expensive.

IFA service provides a vital link that enables people to remain living in the area they grew up due to the affordability, mobility, and reliability that the ferry provides, facilitating a high quality of life for these residents. Although the pandemic was difficult for IFA and service cuts and fare increases had to be implemented, the service is back in full operation now. As stated, by Chrissy Torsey-Lucero, IFA's Finance Manager, "Being there for folks and knowing they could count on the service was imperative. Safety and reliability are of vital importance."

Photo Credit: Inter-Island Ferry Authority.

¹ Price from taquanair.com as of April 14, 2022.



Fixed-route bus, Demand response



1,057,392 2017-2019 Annual Average Ridership

Spending Impacts Annually



95 Jobs



\$13.4 M Output (Revenue)

Performance Benefits Annually



\$8.2 M Annual Costs

Capital Transit



Capital Transit provides fixed-route bus and demand response service to the City and Borough of Juneau. Transit service operates from Mendenhall Valley to downtown Juneau, and from downtown Juneau to Douglas Island.

Capital Transit provides transportation for residents, temporary workers, and tourists. The service provides connections to jobs, essential medical appointments, and other key destinations such as grocery stores. Capital Transit is particularly important as an affordable mobility option for older adults and lowincome residents and workers. Transit also serves those who are unable to drive or who choose not to do so. Budgetconscious tourists utilize Capital Transit to explore downtown and venture to the Mendenhall Glacier. Approximately 10% of visitors to Juneau use public transportation.¹ Seasonal workers and visiting nurses, who often lack personal vehicles, also use transit to commute to and from work.

Capital Transit plays an important role in supporting the tourism economy and connecting business centers to the local workforce. While alternative modes of transportation exist (private car in some cases, private shuttles for tourists), they are far more expensive. If transit service was unavailable, older adults and essential service providers (e.g., healthcare and grocery store workers) may not have other travel options, creating ripple effects in the health of residents as well as the local economy. Beyond this, Capital Transit provides additional services to support its community members, such as delivering groceries to homebound individuals at the start of the pandemic. Capital Transit provides a reliable and affordable travel option that keeps the economy running, supports a vibrant downtown environment, and when needed helps get community members back on their feetat the benefit of riders and non-riders, alike.

Photo Credit: Capital Transit

¹ JUNEAU AIR AND FERRY VISITOR SURVEY. Summer 2018. Travel Juneau.



Modes Offered Fixed-route bus, Demand response



424,192 2017-2019 Annual Average Ridership

Spending Impacts Annually



40 Jobs

\$4.4 M Output (Revenue)

Performance Benefits Annually



\$10.7 M Annual Benefits \$2.7 M Annual Costs

Ketchikan Gateway Borough Transit



Ketchikan Gateway Borough Transit offers fixed-route bus and paratransit services. The operator serves the City of Ketchikan and Ketchikan Gateway Borough, which includes the Village of Saxman. Located on an island that is only accessible by boat or air, the transit service serves a large portion of the island.

Ketchikan Gateway Borough Transit provides transportation for city residents, people from outlying communities (e.g., Prince of Wales Island, Metlakatla Indian Community of the Annette Island Reserve) who travel to Ketchikan to access essential services, and seasonal tourists and tourism workers. The service connects people to jobs, schools, grocery stores, retail stores, the airport, medical appointments, government services, and recreation. Ketchikan Gateway Borough Transit is especially important as an affordable option for low- to moderateincome residents and workers. Some additional transit services operate in the area such as tribal transportation offerings and senior transportation services. While alternatives to transit exist, such as taxis and private vehicles, public transit is the most affordable. The transit service allows people to not need to own a car, meaning they have money to spend on other things.

The transit service plays an important role in supporting local businesses and the community's culture. Retail stores in the area recognize transit's importance in transporting their customers and employees and have lobbied to add transit service to their locations and have even installed shelters for bus stops near their businesses. With over 1 million people a year visiting Ketchikan, transit is vital for helping them get around to local businesses, state parks, and to cultural centers. The service provides access to a heritage center in town, as well as other Native Alaskan landmarks. Transit thus plays a vital role not only in connecting people with essential services and businesses, but also in the sharing of the community's heritage and culture.

Photo Credit: Hall Anderson, Courtesy of Leslie Jackson, Ketchikan Gateway Borough Transit.



Modes Offered "Dial-a-ride" bus



20,695 2017-2019 Annual Average Ridership

Spending Impacts Annually



8 Jobs



\$745 K Output (Revenue)

Performance Benefits Annually



\$397 K Annual Benefits \$390 K Annual Costs

Kodiak Area Transit System



Kodiak Area Transit System (KATS), administered by Senior Citizens of Kodiak, Inc., is a dial-a-ride service with public bus stops. KATS operates within the City of Kodiak with some services extending just outside of the city limits.

While KATS serves the general public, the service is most vital for Alaska Mental Health Trust beneficiaries, seniors, and people with disabilities, as KATS is the only handicapped-accessible transportation option in Kodiak. Locals use KATS to access a variety of necessities and essential services, such as getting to work, shopping areas, medical appointments, college, counseling, and social services. Transit users choose KATS because it is reliable, affordable, and accessible. Kodiak is not a walkable city and the only alternatives to transit are taxis which are not handicapped accessible and can be very costly. KATS also helps those who cannot drive to have mobility and allows those who cannot afford to own a car to avoid those costs and use their money for other things.

According to Pat Branson, CEO of Senior Citizens of Kodiak, "KATS keeps people in our community." By providing affordable and accessible transportation to Kodiak residents, it provides those who otherwise could not live in the area with the opportunity to stay. Going forward, KATS is hoping to expand service within their community to further support those for whom public transportation is essential.

Bus photo credit: Kodiak Area Transit System. https://www.facebook.com/katsbus/photos





Fixed-route bus, Demand response



61.519 2018-2019* Annual Average Ridership

Spending Impacts Annually



Performance Benefits Annually

21,047 Trips enabled

\$492 K Consumer

surplus

Savings



\$150 K Medical

\$922 K Environmental & Safety

\$283 K Travel Time & Vehicle Operating Cost **\$1.5 M** Fare Savings

\$3.8 M Annual Benefits \$1.4 M Annual Costs

Valley Transit

Valley Transit offers fixed-route bus service along the Glenn Highway between the Matanuska-Susitna (Mat-Su) Valley and Anchorage as well as demand response service within the Valley. Transit riders rely on the service for access to job opportunities, school or daycare, healthcare appointments, and leisure activities.

Valley Transit provides numerous benefits to the Mat-Su Valley-Anchorage service area, including decreasing congestion on the Glenn highway during peak hours and operating reliable transportation for people without alternate travel options. Without transit, riders would have to drive themselves or carpool if they have access to a car, or take a taxi/ride-share, although these modes can be expensive, especially over long distances. In contrast, Valley Transit supplies convenient transportation

service that is affordable with flat fares. (not distance-based) across the region and reliable even in challenging weather conditions, which is particularly important for those who rely on the service regularly.

If Valley Transit were not a viable travel option for people in the Mat-Su/Anchorage area, the cost and burden of transportation would be transferred to the local community and would greatly limit the current travel accessibility and flexibility provided to Valley Transit riders. In this way, not only does the transit service save the community additional and unnecessary costs, but it provides a vital link that enables communities and local economies along the Mat-Su/Anchorage corridor to operate at their fullest capacity.

*Analysis in 2018-2019 due to modal reorganization in 2017. Photo Credit: Valley Transit (valleytransitak.org)



VILLEYTRANSIT Mission: To provide accessible, sustainable, reliable, efficient and quality public transportation.



Fixed-route bus, Demand response



64,213 2017-2019 Annual Average Ridership





Performance Benefits Annually

18,996 Trips enabled
\$96 K Consumer surplus
\$363 K TANF/SNAP Savings
\$136 K Medical
\$136 K Medical
\$110 K Environmental
& Safety
\$40 K Travel Time
\$165 K Vehicle
Operating Cost
\$276 K Fare Savings

\$1.2 M Annual Benefits\$1.0 M Annual Costs

The RIDE (Sitka)



The Center for Community (CFC) contracts with Catholic Community Service, Sitka (CCS), and Sitka Tribe of Alaska, to provide comprehensive transit service for the island city of Sitka. CCS operates demand response service (Care-A-Van), and Sitka Tribe operates fixedroute bus service (the RIDE). Service operates on the main roads of Sitka to provide service to the nearly 9,000 people who live there.

The comprehensive Sitka transit service, referred to as the RIDE, provides reliable access for community members and visitors. This includes bringing older adults and people with disabilities to medical appointments and the grocery store, connecting university students with school and jobs, and serving coast guard personnel and hospital workers. Seasonal tourists and workers utilize the transit service, as do residents traveling downtown for business and personal shopping, and for activities such as bingo, concerts, churches, and community meals. Alternative transportation modes in Sitka include biking, hitchhiking, ridesharing, taxis, and private cars for those who can afford it. Transit provides a safe and affordable transportation option for those without personal cars, those who are unable to drive, and those who choose not to drive, particularly in the dark during the winter months.

At the beginning of the COVID-19 pandemic, the RIDE's service was shut down from late March through mid-July 2020 while operators waited on PPE supplies but has since resumed service. During the shutdown, the Sitka community stepped up to fill the void left by transit, and businesses started offering delivery and pick-up services to help provide food/supplies to community members. This speaks to the importance of the RIDE's ability to provide access to grocery stores, medical appointments, and other essential services for the Sitka community, and the reliance that the community has on public transit as a result.

Photo credit: Center for Community (CFC), Sitka.



Fixed-route bus, Demand response



15,624 2017-2019 Annual Average Ridership





Performance Benefits Annually

5,925 Trips enabled

\$153 K Consumer surplus

\$113 K TANF/SNAP Savings

\$42 K Medical

\$195 K Environmental & Safety

\$24 K Travel Time &Vehicle Operating Cost\$488 K Fare Savings

\$1.0 M Annual Benefits \$0.6 M Annual Costs

Sunshine Transit



Sunshine Transit provides public transportation to the Upper Susitna Valley, serving the rural areas of Trapper Creek, Talkeetna, Willow, Houston, and Wasilla. The transit operator runs one deviated fixed-route bus service as well as a demand response van service.

Diverse riders use Sunshine Transit to access necessities and essential services. Seniors, people with disabilities, and lowincome populations, in particular, rely on transit as their best available and affordable option for travel. People count on the transit service to access grocery stores, food banks, medical appointments, prescription pick up and drop off, and even to get clean drinking water, to which some very remote parts of the service area don't have access. Younger area residents such as students also use Sunshine Transit to connect to afterschool activities, including activities at the library, sports, and tutoring programs. There are not many reliable transportation alternatives available to users of Sunshine Transit; there are limited taxi services in the area, so people have to either walk long distances, hitchhike, get a ride from a friend or family member, or drive themselves if they are able, which can be difficult during inclement weather. Sunshine Transit provides safe, reliable, and affordable transportation to the area.

Sunshine Transit is a vital service that connects people to necessities and essential services, thus keeping riders and communities healthy. On top of the critical services it regularly provides, Sunshine Transit is available to help in times of need for individuals and communities. For example, one elderly rider who doesn't have family to depend on called Sunshine Transit when they ended up at the hospital and needed to coordinate a way to get home. When wildfires broke out in the region, Sunshine Transit aided in fire rescue services by evacuating people from their homes and delivering firefighters from the airport to the scene of the fire. Members of the community know that they can rely on Sunshine Transit at any time.

Photo credit: Sunshine Transit



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Modes Offered Inter-city bus and van service

Spending Impacts Annually



7 Jobs



\$490K Output (Revenue)

Key Dates

| 2011 | Inception of Company |
|------|----------------------|
| | |

2013 Purchased two new vans to add to the fleet

Began providing free transit to qualified Veterans through a Highly Rural Transit Grant

with the Veterans Association.

Purchased a new vehicle to2016 replace an aging one for the Northway route

2018

2015

Purchased 2 new buses to support growing ridership

2020

Purchased a new van to improve passenger comfort and replace an aging vehicle.

Interior Alaska Bus Line



Interior Alaska Bus Line operates fixedroute service from Anchorage to Tok (6-7hour trip) and Fairbanks to Tok (4-hour trip), with the service hub located in Tok. The bus line operated an additional ondemand service, the Northway route, but this line was suspended due to the COVID-19 pandemic. The areas served fall between Anchorage, Fairbanks, and Tok.

Interior Alaska Bus Line service provides access to medical appointments, particularly in winter months when people can't or choose not to drive, and provides access to hunters and tourists in summer months, when visitors travel to the area without a car. The bus line supplies yearround access to jobs, transportation opportunities for those without a car or who cannot drive, and valuable social connections, particularly for older adults. Interior Alaska Bus Line provides free service to Alaskan veterans, as well. Besides bus line service, travelers can drive or carpool if they have access to a car, or take air taxi, an expensive alternative with limited capacity and uncertain wheelchair accessibility. Compared to these alternatives, Interior Alaska Bus Line operates affordable and accessible transportation options for locals and tourists, alike.

Uniquely, Interior Alaska Bus Line facilitates time-sensitive small freight transport and delivery on which businesses and the community rely (e.g., transporting salmon eggs for school dissection, delivering water samples, and bringing medical supplies to local hospitals and urgent care centers). During the COVID-19 pandemic, the service additionally provided medication pickup, check pickup/deposit, mail delivery, and grocery delivery services for vulnerable community members. Interior Alaska Bus Line employees frequently go above and beyond their transportation responsibilities to ensure community members have access to essential services and remain connected with one another.

Photo credit: Interior Alaska Bus Line. Key Dates from Interior Alaska Bus Line.

Appendix

Glossary of Terms

Call-out service – Service available for people who need to schedule special rides not covered by the typical transit schedule. Soaring Eagle Transit uses this term.²⁰

Demand response service – A transit mode operating in response to calls from passengers (or their agents). Demand response service dispatches vehicles and a demand responsive basis to pick up passengers and transport them to their destination. Demand response service vehicles do not operate on a fixed route or schedule and vehicles may pick up passengers at several points before taking them to their respective destinations.²¹

Fixed-route bus service – A transit mode that operates rubber-tired passenger vehicles on fixed routes and schedules over roadways.²²

FTA Bus & Bus Facilities Program (5339) – Federal funding administered by the Federal Transit Administration. This program includes both formula and competitive grant funding to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities.²³

FTA Rural Program (5311) – Federal funding administered by the Federal Transit Administration. This formula-based funding program provides transit capital, planning, and operations funding to states to support public transportation in rural areas with populations less than 50,000.²⁴

FTA Urbanized Area Formula Program (5307) – Federal funding administered by the Federal Transit Administration. This formula-based funding program provides funding to public transit systems in Urbanized Areas (UZA) for capital, planning, job access and reverse commute projects, as well as operating expenses in certain circumstances.²⁵

²⁰ https://www.copperriverrecord.net/tributaries/soaring-eagle-transit-offers-new-passes

²¹ https://www.transit.dot.gov/ntd/national-transit-database-ntd-glossary

²² https://www.transit.dot.gov/ntd/national-transit-database-ntd-glossary

²³ <u>https://www.transit.dot.gov/grants</u>

²⁴ <u>https://www.transit.dot.gov/grants</u>

²⁵ <u>https://www.transit.dot.gov/grants</u>

Trip Length Assumptions

| Transit Agency | Bus | Demand Response | Van- pool | Ferry | Notes |
|---|------|--------------------|--------------|-------|---|
| Anchorage - People Mover and AnchorRIDES | 5.84 | 6.42 | 36.83 | | Derived from NTD and conversion from unlinked to linked trips based on rider survey data |
| Bethel – Bethel Transit Bus System | 8.8 | | | | 2017 NHTS Average Person Trip Length, AK Transit |
| Fairbanks - Metropolitan Area Commuter System (MACS) and Van Tran | 6.13 | 6.13 | | | Greater Fairbanks Transportation Survey, 2014 |
| Girdwood - Glacier Valley Transit (GVT) | 8.8 | 8.8 | | | 2017 NHTS Average Person Trip Length, AK Transit |
| Gulkana - Soaring Eagle Transit (SET) | | - | | | NHTS based assumption is invalid because of the range of long-distance services provided by the agency; no other trip length data is available |
| Hollis - The Inter-Island Ferry Authority (IFA) | | | | 42.2 | Derived from Google Maps |
| Juneau – Capital Transit | 8.8 | 8.8 | | | 2017 NHTS Average Person Trip Length, AK Transit |
| Ketchikan – Ketchikan Gateway Borough Transit (The Bus) | 8.8 | 8.8 | | | 2017 NHTS Average Person Trip Length, AK Transit |
| Kodiak – Kodiak Area Transit System (KATS) | 8.8 | | | | 2017 NHTS Average Person Trip Length, AK Transit |
| Wasilla – Valley Transit | 40 | 40 | | | Conservatively based on the route from Trunk Road Park and Ride to Downtown Anchorage |
| Sitka – The Ride | 8.8 | 8.8 | | | 2017 NHTS Average Person Trip Length, AK Transit |
| Central Kenai Peninsula – Central Area Rural Transit (CARTS) | 15 | 15 | | | Based on a review of origin-destination pairs within the service area |
| Talkeetna – Sunshine Transit | 35 | 35 | | | Provided by Sunshine Transit staff |
| Tok – Interior Alaska Bus Line (IABL) | | | | | Varies significantly by route and origin- destination pair; no data on averages available |

Table 5: Trip lengths used in performance benefit analysis (in miles)