

January 2016

The Economic Impacts of the Alaska Marine Highway System

Prepared for
Alaska Marine Highway System



Prepared by

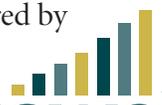

McDowell
GROUP

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Executive Summary

The Alaska Marine Highway System has been providing essential transportation to Alaska's coastal communities since 1963. Fifty-three years later, the system's 11 vessels serve 33 Alaska communities stretching from Metlakatla, north to Prince William Sound and the Kenai Peninsula, and east to the Aleutian chain. With only five of these communities connected to Alaska's road system, AMHS provides a critical transportation link for Alaska residents and businesses, as well as for non-residents visiting our state. With the State of Alaska facing a severe fiscal challenges, this is an



important time to examine how AMHS contributes to the state's economy and quality of life. AMHS contracted with McDowell Group to measure its economic impact for 2014. Following are key findings of the study.

The Alaska Marine Highway System accounted for 1,700 Alaska jobs and \$104 million in Alaska wages in 2014.

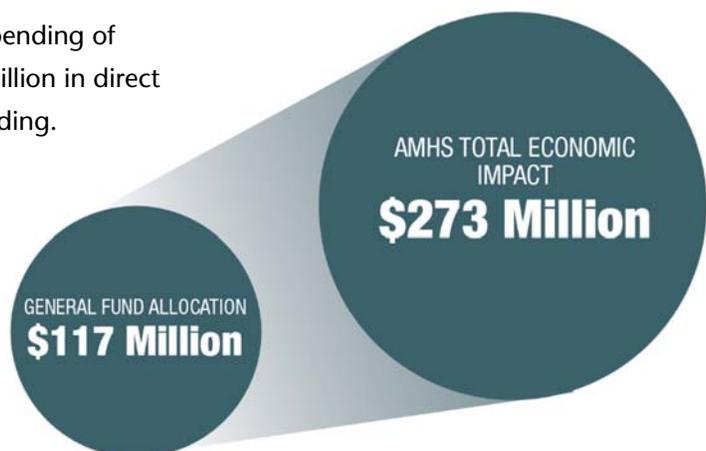
- AMHS employment and spending resulted in 1,700 Alaska jobs in 2014, including 1,017 direct jobs and 683 indirect jobs.
- AMHS accounted for \$103.7 million in Alaska wages in 2014, including \$65.0 million in direct wages and \$38.7 million in indirect wages.

Table ES-1. AMHS Employment and Wage Impacts in Alaska, 2014

	Employment	Wages
Direct impacts	1,017	\$65.0 million
Indirect/induced impacts	683	\$38.7 million
Total impacts	1,700	\$103.7 million

The State of Alaska's General Fund investment of \$117 million resulted in a total return on investment of \$273 million, a return of more than 2-to-1.

- AMHS' economic activity resulted in total spending of \$273.0 million in 2014, including \$184.7 million in direct spending and \$88.3 million in indirect spending.
- The State of Alaska invested \$117 million in General Fund monies in AMHS in fiscal year 2014. That investment was more than doubled in terms of economic benefits to Alaska.



AMHS employees reside in 44 different Alaska communities, bringing home over \$100 million in total wages and benefits in 2014.

- Nearly all AMHS employees reside in Alaska, representing 95 percent of all AMHS employment.
- Four-fifths (82 percent) of 2014 AMHS employees resided in the Southeast region; 17 percent in Southcentral; and 1 percent in Southwest. Wages were distributed similarly.
- Ketchikan has the highest number of AMHS employees of all Alaska communities. With 318 workers, AMHS is one of the community's largest employers.

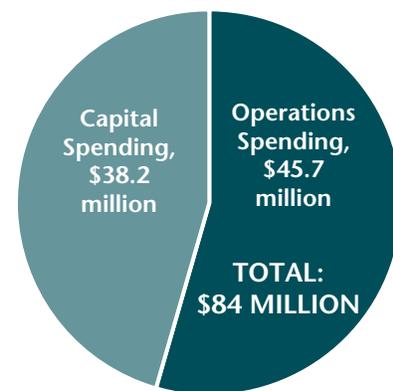


- While Anchorage is not an AMHS port, it is home to 34 AMHS employees.

AMHS directly spent \$84 million with over 500 Alaska businesses in 2014 in operations and capital expenditures.

- AMHS spent \$45.7 million on operations in 2014, not including personnel costs. Major spending categories include fuel/oil/lube (52 percent), services (30 percent), and supplies/ equipment (10 percent).
- Two-thirds (65 percent) of Alaska operations spending occurred in Southeast; 26 percent in Southcentral; and 8 percent in Southwest.
- AMHS spent \$38.2 million on capital projects in Alaska in 2014. Major capital projects included new engines for the Columbia ferry, initial construction of the new Alaska Class Ferry, and Kennicott refurbishment.
- Capital spending was heavily concentrated (94 percent) in Southeast Alaska due to shipbuilding and repair facilities located there.

Chart ES-1. AMHS Capital and Operations Spending, 2014



AMHS carried 319,000 passengers, 108,000 vehicles, and nearly 4,000 container vans in 2014.

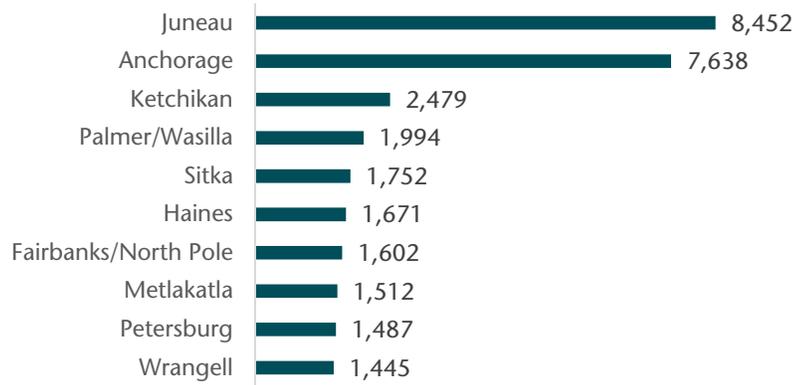
- About three-quarters of AMHS' 2014 passengers were attributable to the Southeast System, while one-quarter were Southwest System passengers. The top five embarkation ports in 2014 were Juneau (70,538 passengers), Haines (36,134), Ketchikan (33,254), Skagway (20,732), and Whittier (20,543).
- AMHS provides essential transport for not only passengers and their vehicles, but freight – including fresh seafood, groceries, and other products critical to Alaska businesses and residents. AMHS transported 3,862

container vans in 2014. The most important links were Homer-Kodiak (867 vans to/from) and Haines-Juneau (399 vans).

Two-thirds of AMHS passengers are Alaska residents – including significant numbers from non-AMHS communities like Anchorage and Palmer/Wasilla.

- AMHS transported 215,509 Alaska residents in 2014, representing 68 percent of all passengers.
- Passengers who booked AMHS trips hailed from across the state, not only port communities. Anchorage was the number two source of AMHS trips booked. Additional non-AMHS port communities that landed in the top 10 were Palmer/Wasilla (#4) and Fairbanks/North Pole (#7).

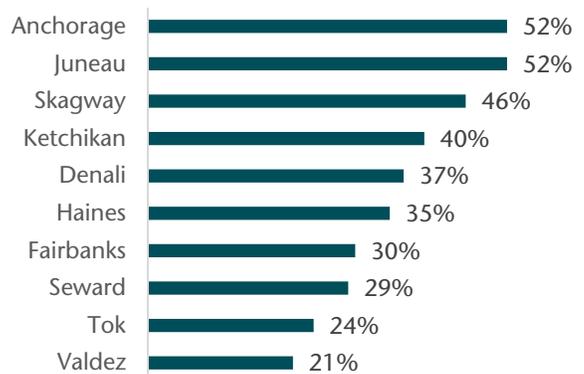
Chart ES-2. Number of AMHS Trips Booked by Community of Residence, Top 10, 2014



AMHS plays an integral role in Alaska’s visitor industry, carrying over 100,000 non-resident passengers annually and bringing in outside dollars to the state.

- In 2014, AMHS carried 103,000 non-resident passengers, along with 27,000 vehicles. AMHS carried 4,320 RVs in 2014.
- Ferry visitors travel widely throughout the state, with just over half (52 percent) of summer passengers visiting Anchorage. Other popular destinations not served by AMHS included Denali (37 percent), Fairbanks (30 percent), and Tok (24 percent).
- AMHS non-resident summer passengers spend about \$1,300 per person while in Alaska (according to a summer 2011 survey), making a wide range of purchases including lodging, dining, tours, and transportation.
- Among those who entered and/or exited Alaska via AMHS, the average per-person spending was \$1,700 – significantly higher than the average among all Alaska summer visitors (\$941). Applying this average to the roughly 17,000 ferry passengers who enter/exit Alaska via the ferry yields a total Alaska spending estimate of \$29 million.

Chart ES-3. Top Ten Destinations of AMHS Visitors, Summer 2011



AMHS contributes to a wide variety of business and resident activity in Alaska. Coastal communities are particularly dependent on the ferry for their economic health.

Following are some examples of the various ways in which coastal Alaska's residents and businesses rely on the ferry system.

- **Employment:** AMHS is a valuable employer in many coastal communities, providing an important source of family-wage and year-round jobs.
- **Sales of goods and services:** AMHS makes purchases from over 500 Alaska businesses annually. These purchases impact a wide variety of businesses: engineering, architecture, ship repair, fuel, groceries, laundry, and business supplies, for example.
- **Tourism:** AMHS brings visitors to communities who may not otherwise visit, particularly those traveling with their vehicles. Spending by these visitors supports a wide variety of local businesses including restaurants, tour companies, transportation providers, and retail stores.
- **Seafood shipment:** A number of seafood companies rely on AMHS for shipment of fresh seafood. The ferry offers an essential alternative to air freight, which can be prohibitively expensive, have insufficient capacity, and lack proper refrigeration. Having a ferry option lowers transportation costs, allowing seafood processors to pay local fishermen more for their product.
- **Shipment of groceries and other goods:** Many communities rely on the ferry system for delivery of groceries as well as other essential freight such as construction equipment and supplies, seafood processing equipment, household goods, etc.
- **Health care:** Smaller communities with limited health care resources rely on AMHS for access to health care in larger population centers like Anchorage and Juneau. AMHS is particularly critical in communities where flights are frequently canceled due to weather.
- **School travel:** AMHS allows students in Alaska's coastal communities to visit other schools for a variety of purposes including sports, leadership development, drama/debate, and arts-related events. For most of these events, air travel is not reliable or financially feasible.



These issues are explored in more detail in a subsequent chapter of this report, which examines the role of AMHS in three "case study" communities: Haines, Cordova, and Angoon.

Introduction and Methodology

Introduction

The Alaska Marine Highway System (AMHS) has provided essential transportation service to coastal Alaska since its inception in 1963. Over the years its services have expanded to encompass 33 Alaska ports stretching from Ketchikan north to Prince William Sound, and west to the Aleutian Chain. Its 11 vessels carry visitors as well as Alaska residents, in addition to a wide variety of vehicles and freight, to these predominately small communities, most of which are unconnected to Alaska's road system.

Advantages of the state's marine highway system go beyond transporting people and goods between coastal communities. The system provides jobs to hundreds of Alaskans, supports businesses around the state, and plays an important role in the state's visitor industry.

Providing these services requires investment by the State of Alaska – AMHS was supported by \$117 million in General Fund revenue in fiscal year 2014. The state's current fiscal challenges resulted in significant budget cuts in 2015 and 2016. To better understand the role of AMHS in our state and communities, and the implications of potential further cuts, AMHS contracted with McDowell Group to analyze the economic impacts of AMHS in Alaska.

Methodology

AMHS provided the study team with extensive data on passenger and vehicle traffic, freight, employment, payroll, capital spending, and operational spending. The *AMHS Annual Traffic Volume Report 2014 (ATVR)* and *Annual Financial Report 2014 (AFR)* provided additional data. Visitor industry data was drawn from the *Alaska Visitors Statistics Program*, conducted by McDowell Group for the Alaska Department of Commerce, Community, and Economic Development.

Economic impact analysis was conducted using the econometric modeling tool IMPLAN. IMPLAN is a predictive input-output model of local and state economies, and is widely used to measure the economic impact of industries and industrial/commercial development.

For the "case study" communities of Haines, Cordova, and Angoon, the study team conducted 22 interviews with local community leaders and business owners. A list of these contacts is provided in the Appendix.

Unless otherwise indicated, all data in this report refers to calendar year 2014.

All photos were provided by AMHS with limited usage rights.

This chapter includes a brief history of AMHS and an overview of the fleet, services, and traffic.

AMHS History

The history of the Alaska Marine Highway System actually predates Alaska's statehood: the Territory of Alaska first purchased a ferry and started servicing Lynn Canal in 1951. The ferry was transferred to the new State along with other territorial assets upon statehood. The first Alaska Legislature approved the Alaska Ferry Transportation Act in 1959, authorizing the new Department of Public Works to acquire ferry terminals and regulate ferry operators. In 1960, Alaska voters statewide approved a bond proposition to invest in a marine highway system, with additional ferries and docking facilities. Operations of the Alaska Marine Highway began in 1963 with four vessels.



The service expanded rapidly in the 1960s and 1970s, with additional ships and ports being added to the point where in 1980, AMHS had nine ships and served 30 communities. The number of people and vehicles served by AMHS continued to grow steadily until traffic peaked in 1992 at over 420,000 passengers. A long-term decline in traffic lasted through the 1990s and early 2000s, likely attributable to several factors, including improvement of road conditions on the ALCAN, a downturn in the U.S. long-distance vehicle market, and increasing reliance on air travel. AMHS continued to improve service and vessels, adding the long-haul vessel Kennicott in

1998 and two fast ferries, the Fairweather (2004) and Chenega (2005).

The long-term decline in traffic ended in the late 2000s; traffic has fluctuated only slightly over the last ten years, averaging 320,000 passengers. AMHS continues to provide essential transportation service to coastal Alaska, calling at 33 Alaska communities – 28 of which are not connected to Alaska's road system. Two new day boats are currently under construction at the Vigor Shipyard in Ketchikan. They will have a capacity of 300 passengers and 53 standard vehicles, and are scheduled for delivery in 2018.

AMHS Vessels

The AMHS fleet consists of 11 vessels, including seven operating in the Southeast System and four in the Southwest System. Seven vessels were constructed in the 1960s and 1970s, with the remaining four constructed between 1998 and 2005.

Passenger capacity ranges from 149 (Lituya) to 600 (Columbia), while vehicle capacity for 20-foot vehicles ranges from 18 (Lituya) to 134 (Columbia). Six vessels have staterooms. Most vessels provide food service, shower facilities, observation lounges, and recliner lounges. The larger vessels provide additional amenities, including play areas for children.

Table 1. AMHS Vessels

	Year Built	Passenger Capacity	Vehicle Capacity (20-foot)	# of Staterooms
Matanuska	1963	499	88	106
Malaspina	1963	499	88	72
Taku	1963	370	69	40
Tustemena	1964	174	36	24
Columbia	1974	600	134	103
Leconte	1974	247	34	-
Aurora	1977	300	34	-
Kennicott	1998	499	80	109
Lituya	2004	149	18	-
Fairweather	2004	250	36	-
Chenega	2005	250	36	-

Source: AMHS.



AMHS Service and Traffic

AMHS currently provides year-round scheduled ferry service to Southeast, Southcentral, and Southwest Alaska, in addition to serving two non-Alaska ports: Prince Rupert, British Columbia and Bellingham, Washington. Following are more details on routes, traffic, and services.

Routes and Ports

AMHS served 33 Alaska ports and two non-Alaska ports in 2014. Seventeen ports represent the “Southeast System” (which extends from Bellingham to Yakutat), and 18 ports comprise the “Southwest System” (covering the area between Cordova and Dutch Harbor).

The Southeast System is divided into “mainline” (multiple-day) routes, and “day boat” routes, where vessels typically return to their home port on the same day.

Vessels connect with the continental road system at four ports on the Southeast System (Bellingham, Prince Rupert, Haines, and Skagway) and three ports on the Southwest System (Valdez, Whittier, and Homer).

Figure 1. AMHS Southeast System Routes

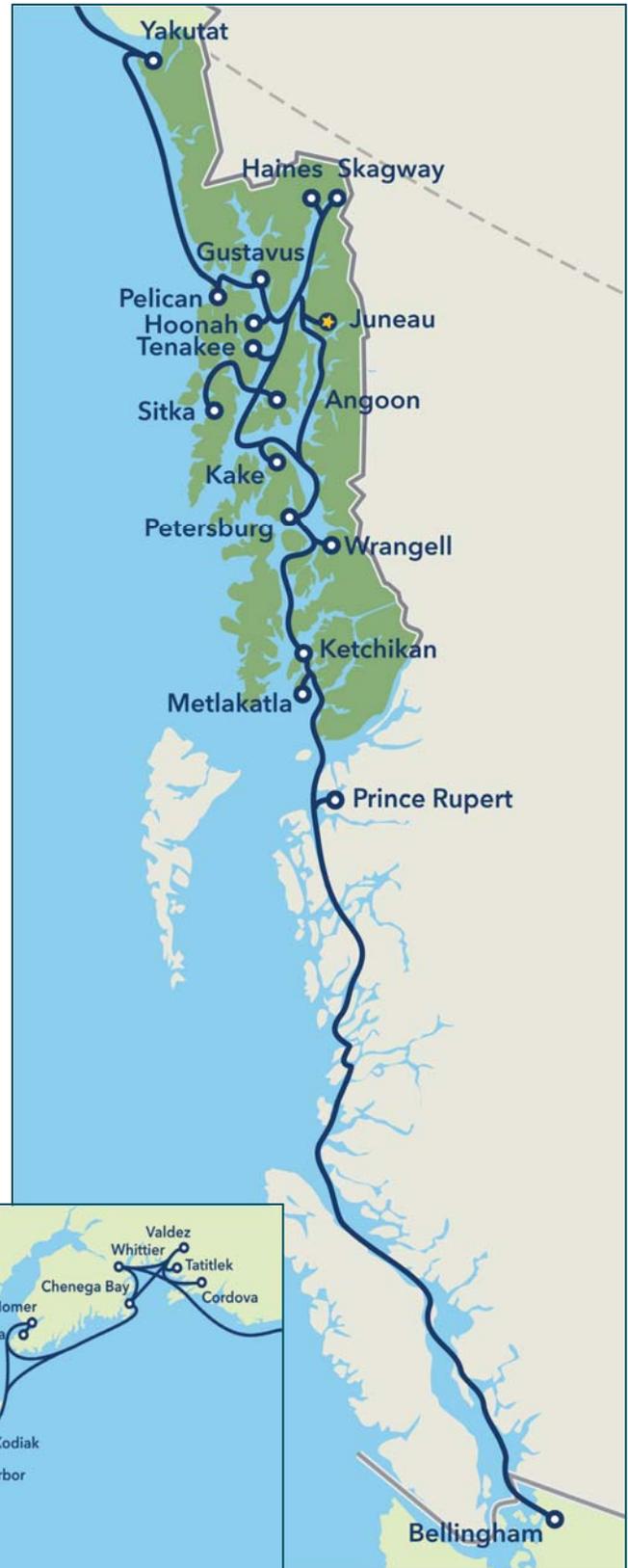


Figure 2. AMHS Southwest System Routes



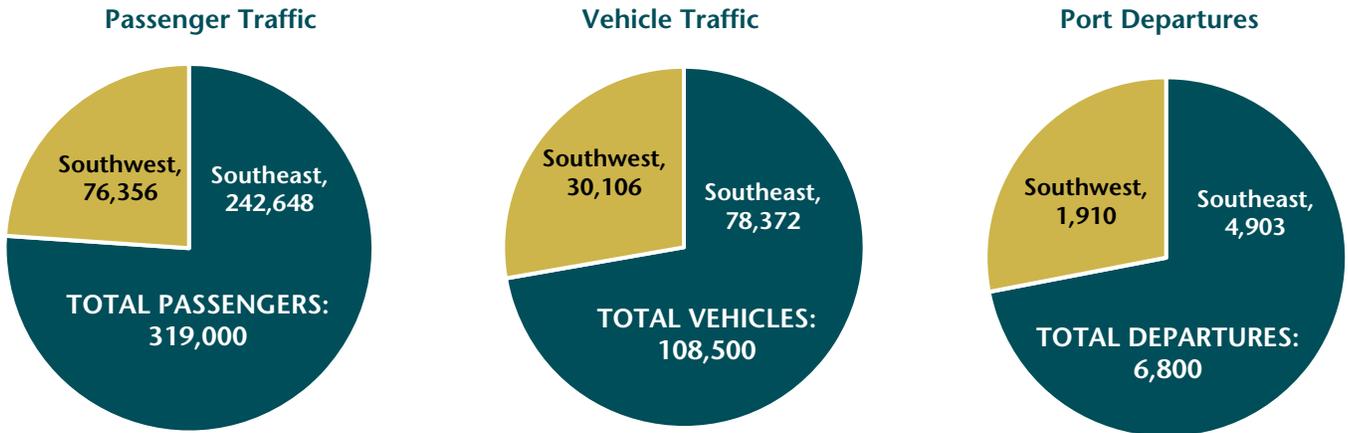
Source: AMHS.

Passenger and Vehicle Traffic

TOTAL TRAFFIC

In 2014, AMHS transported just over 319,000 passengers and over 108,000 vehicles. There were nearly 7,000 port departures in 2014. About three-quarters of the traffic occurred in the Southeast System: 76 percent of passengers, and 72 percent of both vehicles and port departures.

Chart 1. AMHS Traffic by System, 2014

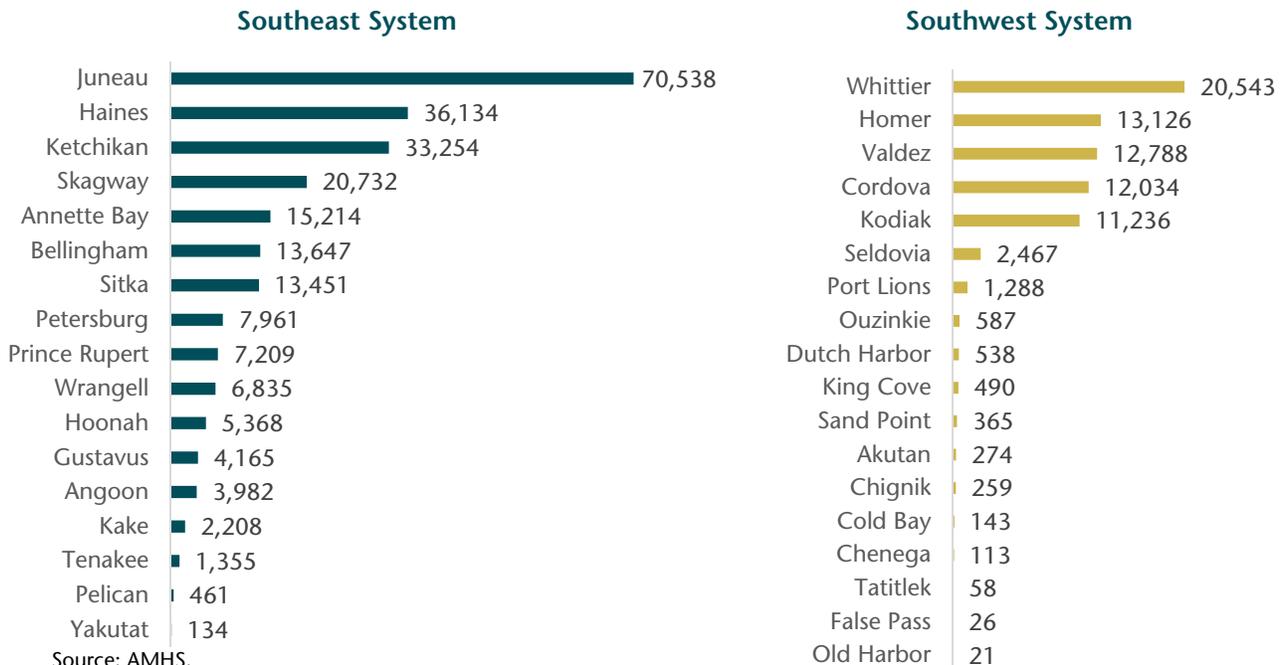


Source: AMHS.

TRAFFIC BY PORT

The charts below show embarking passenger traffic by port for each system. Juneau has by far the highest volume of passengers (70,538), followed by Haines (36,134), Ketchikan (33,254), Skagway (20,732), and Whittier (20,543).

Chart 2. AMHS Embarking Passenger Traffic, 2014, by System

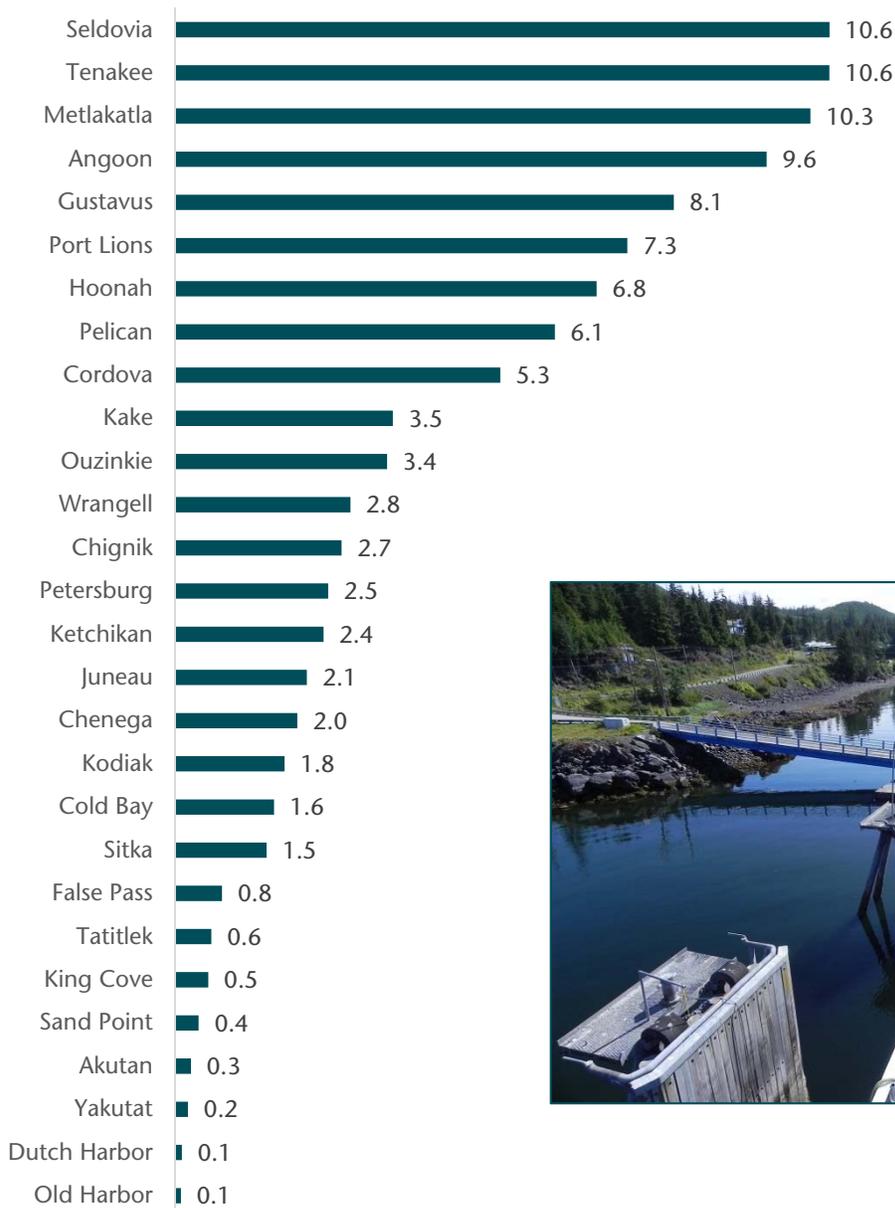


Source: AMHS.

AMHS AS ESSENTIAL TRANSPORTATION PROVIDER

Smaller communities not connected by road to the rest of the state are particularly reliant on AMHS. The chart below shows the ratio of resident population to embarking traffic in 2014 among communities not connected to the statewide road system. For example, Seldovia had 2,467 embarking passengers in 2014, and a population of 233: 2,467 divided by 233 is 10.6. For every one resident of Seldovia, there were 10.6 passenger embarkations in 2014. Seldovia, Tenakee, and Metlakatla had the highest ratios of traffic to population, implying a heavy reliance in these communities. The communities on the lower end of the spectrum, such as Yakutat, Dutch Harbor, and Old Harbor, tend to receive very few port calls: 30, 11, and 4 (respectively) in 2014.

Chart 3. Ratio of Resident Population to Passenger Embarkations, 2014, Communities Not On Statewide Road System



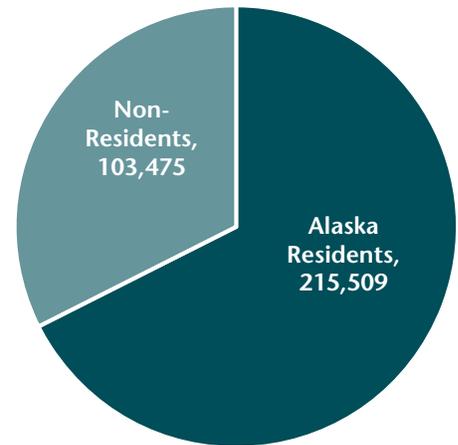
Source: AMHS. Population estimates from Alaska Department of Labor and Workforce Development.

TRAFFIC COMPOSITION

AMHS moves large numbers of both Alaska residents and non-resident visitors. Among Alaska resident travelers are people from all across the state.

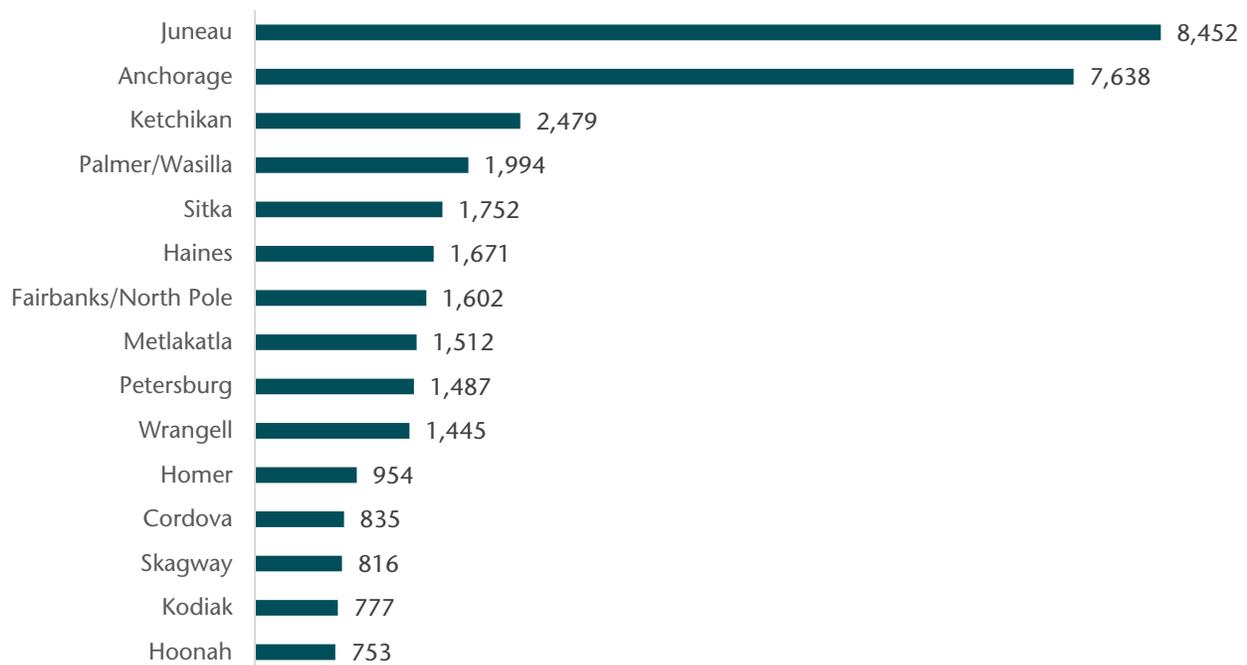
- Alaska residents represented 68 percent of all passengers; non-residents represented 32 percent.
- AMHS attracted passengers from all 50 states and over 80 different countries in 2014. Besides Canada, the top foreign countries of origin in terms of passenger volume were Germany, Australia, Switzerland, and United Kingdom.
- Among Alaska residents, Juneau residents booked the highest number of trips at 8,452 (see Chart 5).
- Anchorage residents booked the second highest number of trips at 7,638. Additional communities that landed in the top 15 despite not being AMHS ports were Palmer/Wasilla (#4) and Fairbanks/North Pole (#7).

Chart 4. Alaska Resident versus Non-Resident AMHS Passenger Traffic, 2014



Source: AMHS.

Chart 5. Number of AMHS Trips Booked by Community of Residence, 2014



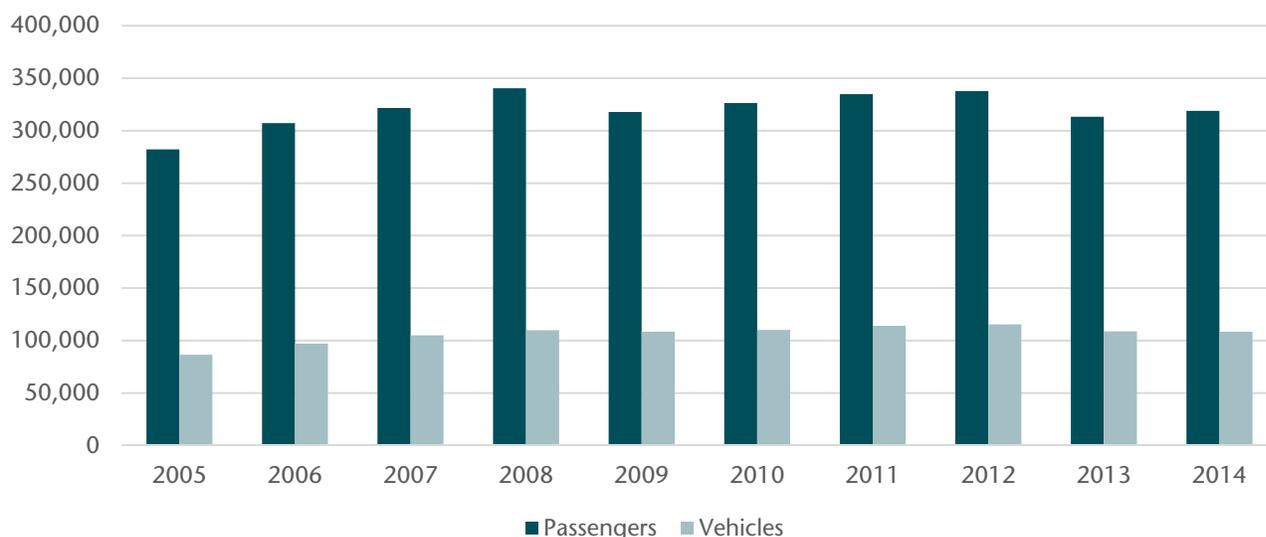
Source: AMHS.

TRAFFIC TRENDS

AMHS passenger traffic has averaged 320,000 passengers over the last ten years. The lowest traffic of the decade was in 2005 (282,236), while the peak was in 2008 (340,412). Passenger traffic in 2014 was about average at 319,000, and was up 2 percent over 2013.

AMHS vehicle traffic has averaged 106,400 vehicles over the last ten years. The lowest vehicle traffic of the decade was in 2005 (86,518), while the peak was in 2012 (115,448). Vehicle traffic in 2014 was a little above average at 108,500, about the same as in 2013.

Chart 6. AMHS Annual Passenger and Vehicle Embarkations, 2005-2014



Source: AMHS.

Freight and Other Transport

In addition to transporting passengers and their vehicles, AMHS plays an essential role in transporting freight (using container vans), vehicles without drivers, trailers, ATVs, etc.

- AMHS transported 13,110 vehicles without drivers and 4,320 RVs in 2014. RVs are defined as truck/campers, camper vans, motorhomes, and vehicles with trailers.
- AMHS transported 2,269 non-motorized vehicles in 2014. These include bicycles, kayaks, and canoes not being transported in a car, truck, or trailer.
- AMHS transported over 18,000 pets/livestock in 2014.

Table 2. Vehicles, Freight, and Other Car Deck Usage, 2014

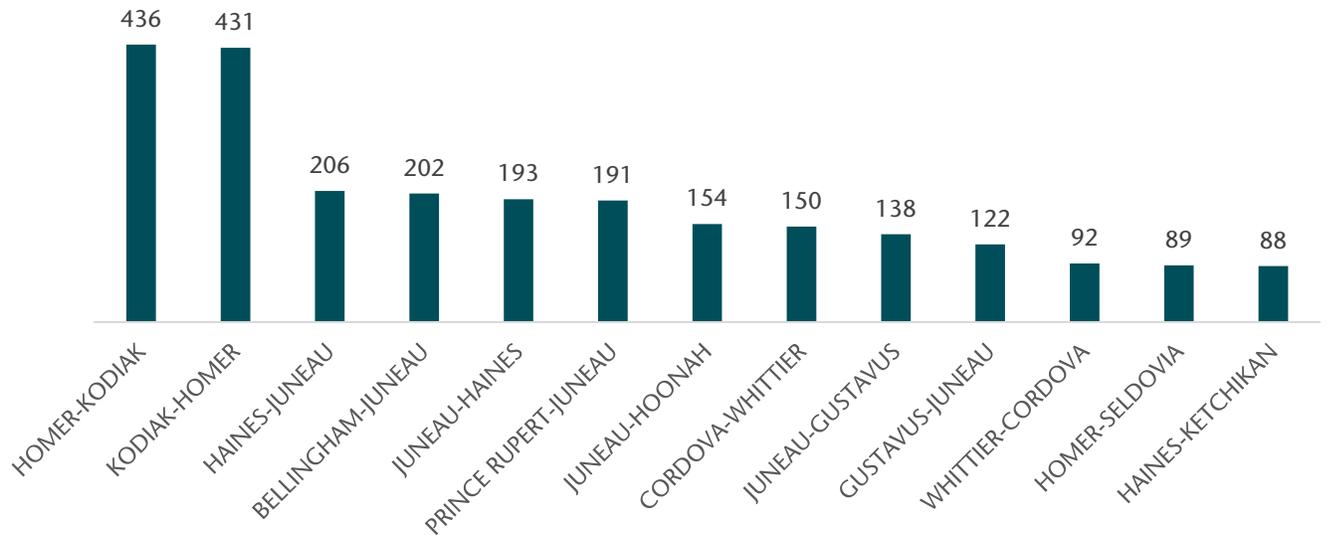
	Number Transported
Container vans	3,862
Vehicles w/o drivers	13,110
RVs	4,320
Non-motorized vehicles	2,269
Pets/livestock	18,016
ATVs	115
Trailers	331

Source: AMHS.

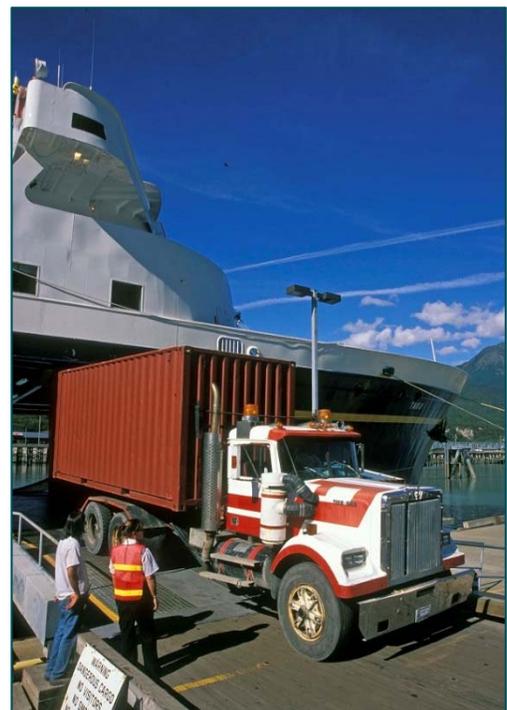
Marine freight plays a particularly important role for coastal communities, which rely on AMHS for transportation of time-sensitive cargo such as fresh produce, meat, and dairy products. Container vans are also used to move fresh Alaska fish and seafood to markets.¹

- AMHS transported nearly 4,000 container vans in 2014. The most important routes for container vans are Homer-Kodiak and Kodiak-Homer at 436 and 431 vans, respectively (see Chart 7). Juneau is also an important container van port, accounting for seven of the top 15 links.

Chart 7. Top 15 AMHS Container Van Links, 2014



Source: AMHS.



¹ ATVR.

AMHS Employment and Payroll

Jobs and income directly created by AMHS are an important part of the system’s economic impact. This chapter describes AMHS employment in terms of employee residence, payroll, and benefits.

Employment in Alaska

AMHS employed 1,017 Alaska residents in 2014, representing 95 percent of total system workforce.

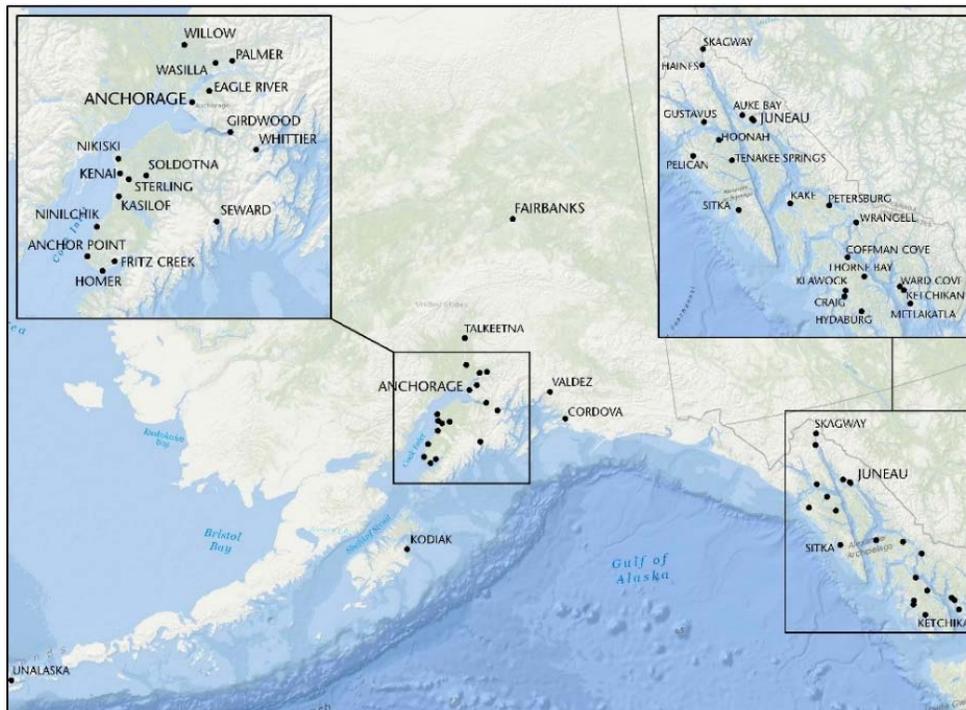
- Employees hailed from 44 separate communities throughout the state (see Figure 3, below).
- Southeast residents constituted the bulk of employees (82 percent); Southcentral residents represented 17 percent; and Southwest represented 1 percent.
- Ketchikan and Juneau alone accounted for 60 percent. With 318 employees, AMHS is one of Ketchikan’s single largest employers.

Table 3. AMHS Employment, by Region/Community of Residence, 2014

	# of Employees
Southeast	829
Ketchikan	318
Juneau	297
Haines	51
Wrangell	39
Petersburg	25
Sitka	21
Metlakatla	15
Southcentral	175
Anchorage	34
Homer	34
Cordova	19
Southwest	11
Kodiak	10
Other Alaska	2
Total Alaska	1,017
% Alaska Resident	95%

Source: AMHS

Figure 3. AMHS Employee Communities of Residence, 2014



Source: McDowell Group.

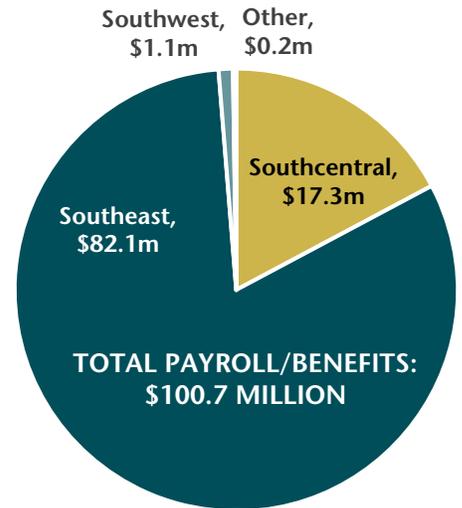
Payroll in Alaska

Employee spending of payroll dollars have important economic impacts in their local communities.

- AMHS paid its Alaska employees just over \$100 million in wages and benefits in 2014, including \$65 million in wages and \$36 million in benefits.
- Four-fifths (82 percent) of payroll/benefits accrued to employees residing in Southeast Alaska; 17 percent accrued to employees residing in Southcentral; and 1 percent accrued to employees living in Southwest.
- Ketchikan resident employees received the largest amount of wages/benefits at \$31.5 million, followed closely by Juneau residents at \$29.4 million.
- While Anchorage is not an AMHS port, Anchorage residents received \$3.4 million in wages/benefits. Anchorage ranked fifth compared with other communities in terms of total wages/benefits, along with Homer.



Chart 8. AMHS Payroll and Benefits to Alaska Employees, By Region, 2014



Source: AMHS.

Table 4. AMHS Payroll and Benefits, By Community of Residence, 2014

	Payroll and Benefits
Southeast	\$82,074,000
Ketchikan	\$31,495,000
Juneau	\$29,387,000
Haines	\$5,035,000
Wrangell	\$3,863,000
Petersburg	\$2,459,000
Sitka	\$2,107,000
Metlakatla	\$1,522,000
Southcentral	\$17,328,000
Anchorage	\$3,395,000
Homer	\$3,395,000
Cordova	\$1,873,000
Southwest	\$1,054,000
Other Alaska	\$234,000
Total Alaska	\$100,690,000

Source: AMHS estimates based on distribution of employment.

AMHS Spending

Spending by AMHS creates significant jobs and income with Alaska businesses that provide goods and services. This chapter describes AMHS' direct spending in terms of operations and capital expenditures.

Operations Spending

Operations spending includes expenses associated with keeping AMHS running: fuel, maintenance, and office supplies, for example.

- AMHS spent \$45.7 million on operations with Alaska businesses in 2014.
- Spending occurred with roughly 500 individual businesses throughout the state.
- Two-thirds (65 percent) of Alaska operations spending occurred in Southeast; 26 percent in Southcentral; and 8 percent in Southwest.
- By community, Juneau represented the most spending at \$24.1 million, followed by Cordova (\$4.4 million), Anchorage (\$4.1 million), Ketchikan (\$3.9 million), and Whittier (\$2.2 million).
- Operations spending did not necessarily reflect traffic levels by community. For example, Anchorage is not an AMHS port, but it received the third-highest amount of spending. Cordova ranks 11th in terms of passenger traffic, but second in terms of operations spending, due to fuel purchases.

Chart 9. AMHS Operations Spending in Alaska by Region, 2014

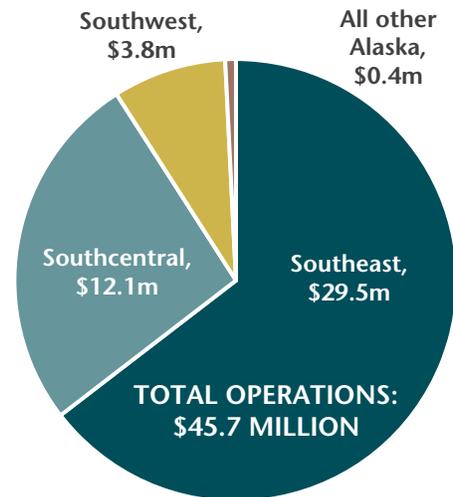


Table 5. AMHS Operations Spending in Alaska By Region/Community, 2014

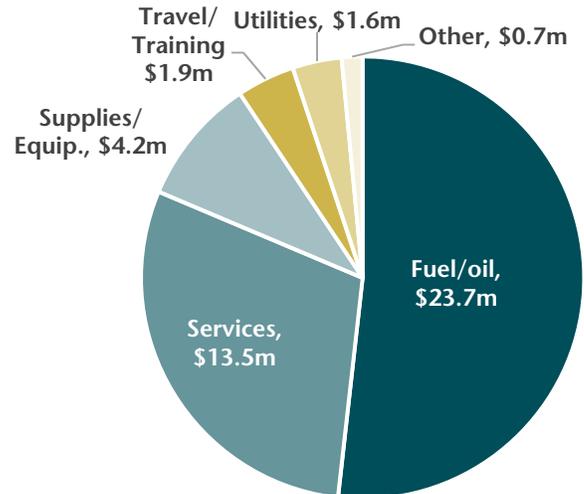
Region/Community	Amount
Southeast	\$29,512,000
Juneau	\$24,117,000
Ketchikan	\$3,935,000
Skagway	\$556,000
Petersburg	\$235,000
Haines	\$208,000
Sitka	\$163,000
Southcentral	\$12,051,000
Cordova	\$4,430,000
Anchorage	\$4,093,000
Whittier	\$2,152,000
Seward	\$728,000
Valdez	\$166,000
Southwest	\$3,792,000
Kodiak	\$3,557,000
Dutch Harbor	\$180,000
All other Alaska	\$357,000
Total	\$45,712,000

Source: AMHS.

OPERATIONS SPENDING BY CATEGORY

- By expenditure category, fuel, oil, and lube accounted for just over half (52 percent) of all spending.
- Services accounted for 30 percent. Examples of services include advertising, engineering, courier, inspections, laundry, stevedoring, plumbing, and snow removal.
- Supplies and equipment accounted for 10 percent of spending; travel (which includes lodging, meals, and training) for 4 percent; utilities for 4 percent; and non-categorized expenses for 2 percent.

Chart 10. AMHS Operations Spending by Category, 2014



Source: AMHS

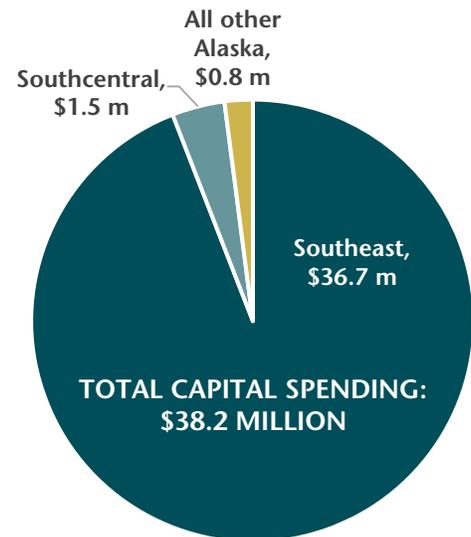


Capital Expenditures

Capital expenditures are used to acquire assets or extend the life of existing assets. AMHS capital spending in 2014 consisted primarily of vessel design, construction, refurbishments, and repair; and terminal upgrades and repair.

- AMHS spent \$38.2 million in Alaska on 37 different capital projects in 2014.
- The biggest capital line item was Columbia repower (new engines) at \$15.8 million, followed by Alaska Class Ferry construction at \$6.2 million, Kennicott refurbishment and upgrades at \$6.2 million, Fairweather propulsion system replacement at \$3.2 million, and lifesaving equipment upgrades at \$2.3 million.
- Southeast accounted for 94 percent of all capital expenditures in Alaska; Southcentral accounted for 4 percent; and all other regions accounted for 2 percent.
- Ketchikan alone represented 81 percent of Alaska capital expenditures, primarily attributable to ship-building and repair facilities located at the Alaska Industrial Development and Export Authority (AIDEA)-owned shipyard.

Chart 11. AMHS Capital Spending by Region, 2014



Source: AMHS.

Table 6. AMHS Capital Expenditures by Region/Community, 2014

Region/Community	Amount
Southeast	\$36,659,000
Ketchikan	\$30,804,000
Juneau	\$5,598,000
Petersburg	\$108,000
Southcentral	\$1,506,000
Anchorage	\$1,033,000
Seward	\$387,000
Southwest	\$7,000
All other Alaska	\$70,000
Total Capital Expenditures	\$38,242,000

Source: AMHS.

Total Expenditures

The chart and table below show total expenditures after adding together capital and operations expenditures.

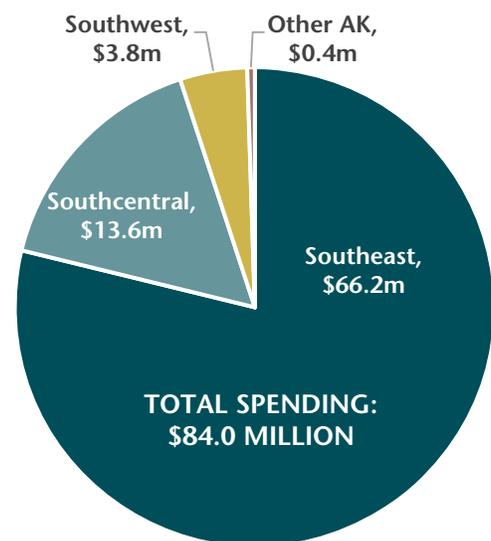
- AMHS spent \$84.0 million in Alaska in 2014 counting operations (\$45.7 million) and capital (\$38.2 million) expenditures.
- Four-fifths (79 percent) of total Alaska expenditures occurred in Southeast; 16 percent in Southcentral; and 5 percent in Southwest.
- The top five communities in terms of total spending were Ketchikan (\$34.7 million), Juneau (\$29.7 million), Anchorage (\$5.1 million), Cordova (\$4.5 million), and Kodiak (\$3.6 million). All other communities accounted for \$1.1 million or less in spending each.

Table 7. AMHS Total (Operating plus Capital) Expenditures by Community (Top 10) and Region, 2014

	Amount
Southeast	\$66,171,000
Ketchikan	\$34,739,000
Juneau	\$29,715,000
Skagway	\$582,000
Petersburg	\$343,000
Haines	\$210,000
Southcentral	\$13,557,000
Anchorage	\$5,126,000
Cordova	\$4,470,000
Whittier	\$2,152,000
Seward	\$1,115,000
Southwest	\$3,799,000
Kodiak	\$3,564,000
Other Alaska	\$427,000
Total Expenditures	\$83,954,000

Source: AMHS.

Chart 12. AMHS Total Spending by Region, 2014



Source: AMHS.

Economic Impacts

The Alaska Marine Highway System has significant economic impact on the many communities and businesses that rely on it. These economic impacts are distributed throughout Southeast, Southcentral, and Southwest Alaska, touching numerous sectors of the economy. In general, the economic impact of AMHS includes the following:

- Jobs and labor income for AMHS employees.
- AMHS spending with Alaska businesses (vendors) in support of its operations.
- All of the indirect and induced employment and labor income effects connected in some way with AMHS. This includes spending by Alaska businesses that serve AMHS, as well as spending by their employees.
- Spending by Alaska visitors who sail on AMHS and rely on it as a key aspect of their Alaska trip.



This chapter describes and (to the extent possible) measures these economic impacts.

Employment and Payroll Impacts

Based on detailed analysis of vendor spending and capital project spending, it is estimated that AMHS economic activity created 1,700 Alaska jobs in 2014, including 1,017 in direct jobs and 683 in indirect jobs. AMHS-associated wages totaled \$104 million, including \$65.0 million in direct wages and \$38.7 million in indirect wages. Total spending resulting from AMHS' economic activity is estimated at \$273.0 million in 2014, including \$184.7 million in direct spending (wages, benefits, and non-personnel operating and capital expenditures) and \$88.3 million in indirect spending.

Table 8. AMHS Direct and Indirect Economic Impacts, 2014

	Employment	Wages (\$millions)	Total Spending (\$millions)
Direct impacts	1,017	\$65.0	\$184.7
Indirect and induced impacts	683	\$38.7	\$88.3
Total impacts	1,700	\$103.7	\$273.0

Economic Impacts by Region

In terms of direct spending, four-fifths (80 percent) of AMHS spending in 2014 occurred in Southeast Alaska; 17 percent in Southcentral Alaska; 3 percent in Southwest Alaska; and less than 1 percent in other Alaska regions. Direct spending includes capital expenditures, operating expenditures, and payroll/benefits.

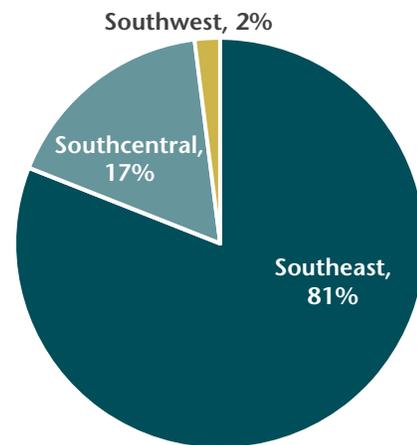
Table 9. AMHS Total Direct Spending and Payroll by Region, 2014

	AMHS Expenditures	AMHS Payroll	Total Spending	% of Total
Southeast	\$66,171,000	\$82,074,000	\$148,245,000	80%
Southcentral	\$13,557,000	\$17,328,000	\$30,885,000	17%
Southwest	\$3,799,000	\$1,054,000	\$4,853,000	3%
Other Alaska	\$427,000	\$234,000	\$661,000	<1%
Total Expenditures	\$83,954,000	\$100,690,000	\$184,644,000	100%

Regional distribution of AMHS employment is similar to spending impacts, with 82 percent of employees residing in Southeast Alaska, 17 percent in Southcentral, 1 percent in Southwest, and less than 1 percent in other Alaska regions.

The regional distribution of indirect and induced impacts are dictated by the direct impacts of employment, payroll, and spending. Economic impacts by region are estimated at 81 percent for Southeast Alaska, 17 percent for Southcentral, 2 percent in Southwest, and less than 1 percent in other Alaska regions.

Chart 13. Distribution of AMHS Economic Impacts by Region, 2014



Industry Benefits

Role in Alaska's Visitor Industry

The Alaska Marine Highway System has long played an integral role in Alaska's visitor industry. AMHS offers a unique mode of independent travel to, from, and within Alaska. Many visitors travel to and/or from the state using the Bellingham, Washington terminal or the Prince Rupert, British Columbia terminal. AMHS offers a flexible and "off-the-beaten path" style of travel, and allows visitors to travel with their vehicle and pets.

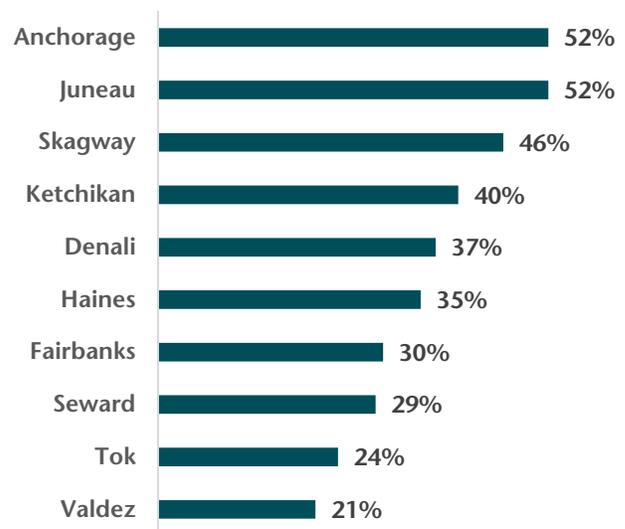


- In 2014, 103,475 visitors traveled on the Alaska Marine Highway, representing 32 percent of all passenger traffic. Visitors brought 27,131 vehicles with them, representing 25 percent of all vehicle traffic. Overall, AMHS carried 4,320 RVs in 2014.²
- Visitors represent higher revenues than Alaska residents on a per-person basis: non-residents represent approximately one-third of all AMHS passenger traffic, yet account for 42 percent of fare revenue.³

In the summer of 2011 (the most recent visitor research available), visitors who reported using the ferry to travel to/from Alaska or to travel between communities had the following characteristics.⁴

- Summer AMHS visitors spent an average of 14 nights in Alaska, much higher than 9-night average reported among all summer visitors.
- These visitors traveled widely throughout the state (see chart at right). The most popular region visited was Southeast Alaska (82 percent). Over one-half (55 percent) visited Southcentral Alaska, including 52 percent who visited Anchorage. Nearly one-half (49 percent) visited the Interior, including 37 percent who visited Denali.
- AMHS users were highly satisfied with their overall Alaska trip, with 74 percent very satisfied, and another 24 percent satisfied.

Chart 14. Top 10 Alaska Communities Visited by Non-Resident AMHS Passengers, 2011



Source: AVSP.

² Source: AMHS.

³ Source: AMHS.

⁴ *Alaska Visitor Statistics Program VI*, prepared by McDowell Group for Alaska Department of Commerce, Community, and Economic Development.

These satisfied ferry travelers are more likely to spread “word-of-mouth” positive information regarding their trip to Alaska. Nearly all (98 percent) said they are likely or very likely to recommend Alaska to others as a vacation destination. In addition, 64 percent said they planned to return to Alaska at some point in the next five years.

VISITOR SPENDING

AMHS visitor spending is based on visitor survey data collected in summer 2011. The fall/winter survey sample of AMHS non-resident ferry passengers is too small for analysis and, in any case, represent a comparatively small number of visitors and spending.

- AMHS non-resident passengers spent an average of \$1,300 per person while in Alaska, not including transportation to enter/exit the state. (They spent an average of \$412 per person on ferry tickets.)
- In terms of economic impacts attributable to AMHS, it is more accurate to consider the subset of AMHS non-resident passengers for whom the ferry played a critical role in their Alaska trip: those who entered and/or exited the state via the ferry. Among these visitors, the average per-person spending was \$1,700 – significantly higher than the average of \$941 among all Alaska visitors.
- Applying the \$1,700 per person average to the estimated number of AMHS non-resident passengers who entered and/or exited the state via ferry (17,000) results in a total spending estimate of \$28.9 million.

Role in Alaska’s Seafood Industry

While the exact amount of seafood shipped via AMHS is difficult to estimate, it is clear that ferries are an essential method of transport for a number of seafood companies, which need to get their fresh fish to the road system as quickly and efficiently as possible. AMHS provides a critical alternative to air transport, which can be prohibitively expensive, insufficiently refrigerated, and offers limited capacity.

A representative of a Juneau-based seafood company stated that AMHS is “very important” to their business model. They ship significant amounts of seafood from Juneau to Skagway, as well as from Juneau to Bellingham and Prince Rupert, where it gets transferred to long-haul truckers en route to Seattle and Los Angeles. The affordability of AMHS and the higher quality of chilled fish allows them to pay fishermen more per pound. He stated that if AMHS operations were to cease, they would be significantly impacted.

A representative of a Cordova seafood processing company stated that his company ships seafood out of Cordova aboard the marine highway three to seven days a week from May to September. The



marine highway system is essential to his business not only for seafood shipment, but also shipment of supplies, parts, and equipment necessary to keep their processing plant running.

According to an AMHS representative, the primary ports for seafood shipment are Kodiak, Cordova, Petersburg, Wrangell, and Juneau. Seafood freight disembarks at ports with road access like Homer, Whittier, Skagway, Prince Rupert, and Bellingham.

Other Benefits to Alaska Businesses

As a key part of the state's transportation infrastructure, AMHS helps reduce Alaska's dependency on out-of-state goods and services. By providing a type of transportation that would be unavailable in most parts of Alaska without public sector support, AMHS encourages purchase of goods and services in-region or in-state and reduces regional and statewide economic leakage (dollars leaving a particular region of the state or the state as a whole). AMHS fosters development of local businesses that ship heavy or bulky items that are also perishable or otherwise time constrained such as produce, seafood, frozen food, construction equipment, and various types of industrial supplies and spare parts.

Impact on the Cost of Living in Rural Alaska Communities

An unrecognized benefit of the Alaska Marine Highway is its effect on the cost of living in communities served by the system. Ferries provide residents of smaller, outlying communities with improved access to lower-priced goods and services in larger port communities, as well as health care, legal, financial, and other services that may not be available in their hometown. Ferries can accommodate large numbers of passengers on short notice for community and sports events. They are faster at moving freight than barges and much cheaper than airplanes on a dollars per pound basis. As a result, the cost of living in rural areas served by AMHS is lower than it would be without AMHS services.

Public Service Benefits of AMHS

AMHS is an important, weather-independent link between outlying villages and larger regional healthcare facilities. The system also transports student groups on field trips or in extracurricular activities at a much lower cost than air travel, allowing for more frequent travel. The same is true for cultural and other community events. This travel facilitates interaction between people from different communities and different cultures that would be much less frequent without AMHS.

AMHS' role in Alaska's economy is clearly diverse and far-reaching. These impacts can be more clearly articulated at the community level. The following chapter explores the role of AMHS in three "case study" communities: Haines, Cordova, and Angoon.

AMHS' Role in Coastal Communities

It is difficult to generalize about the role of AMHS in local economies, though for a number of communities ferry service is critical. That role varies depending, in part, on the size of the community, the types of local industries, proximity to regional “hub” communities, and availability of alternative transportation modes. Historical social and cultural ties between communities are also a factor. Three communities were selected to help illustrate the role AMHS plays in local economies: Haines, Cordova, and Angoon. Sources of information included AMHS traffic and passenger data and executive interviews with community representatives.

Haines

Haines plays a unique role in the AMHS system and in Southeast Alaska. Along with Skagway, it provides the region's only access to the statewide road system, linking ferry passengers with the Haines Highway, and to points further north.

Among the many markets served by ferry service to Haines are:

- Visitors traveling the popular “Golden Circle” route between Haines, Skagway, and Whitehorse
- Long-haul visitors traveling between Southcentral/Interior Alaska and Prince Rupert/Bellingham
- Day-tour visitors from Juneau and/or Skagway
- Juneau (and other Southeast) residents visiting Haines and/or points north
- Yukon residents traveling to Southeast Alaska
- Military personnel re-locating to/from Alaska
- Haines residents traveling to Juneau for health care, travel, major retail purchases, and other services not available in Haines
- Haines students traveling for school-related activities

Unlike some other Alaska communities with ferry service, Haines does not receive jet air service; it relies on small planes, which have much more limited load capacity than either jets or the ferry, and are subject to frequent weather cancellations. This makes Haines residents particularly reliant on the ferry system for activities like school travel, doctors' appointments, retail purchases, and other essential travel.



The ferry is critical to Haines' visitor industry, which in turn is critical to the community's economy. The last time the visitor industry's economic impact was measured (2001), the industry accounted for 300 local jobs – or roughly one-quarter of local employment (counting direct and indirect impacts).⁵ A more recent study focused on the winter industry found total employment impacts of 100 jobs between October 2013 and April 2014 – essential employment during the economically slow winter period.⁶

While the ferry system is clearly integral to Haines, Haines is also integral to AMHS: Haines carries the second-highest number of AMHS passengers annually, after Juneau (which has 13 times the population of Haines).

In 2014, Haines saw nearly 70,000 passengers (either embarking or disembarking) and over 25,000 vehicles (see Chart 15).

The three most important port links for Haines passengers and vehicles are Juneau, Skagway, and Bellingham. The map at right shows the number of passengers and vehicles in terms of on/off traffic – for example, 43,631 passengers either embarked in Haines then disembarked in Juneau, or vice versa, along with 14,251 vehicles. The equivalent figure for the Haines-Skagway link is 15,456 passengers and 6,316 vehicles; and for Haines-Bellingham, 6,011 passengers and 2,967 vehicles.

Haines is also an essential shipment port, with 574 container vans unloaded or offloaded in 2014. The Haines-Juneau and Juneau-Haines routes have the third and fifth-highest number of vans transported statewide, respectively. Other important van link ports for Haines are Ketchikan and Sitka.

Chart 15. Haines AMHS Passenger and Vehicle Traffic, 2014

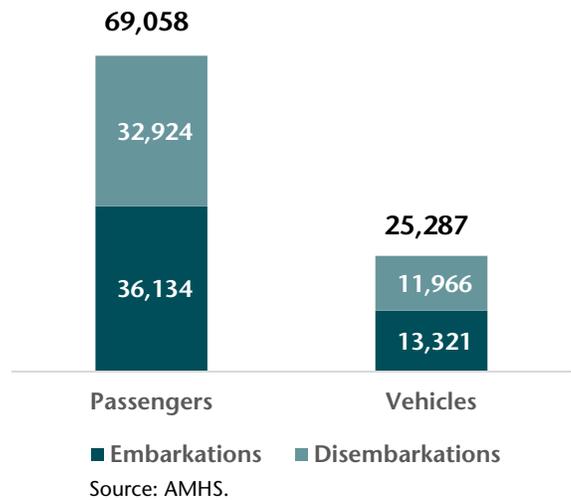
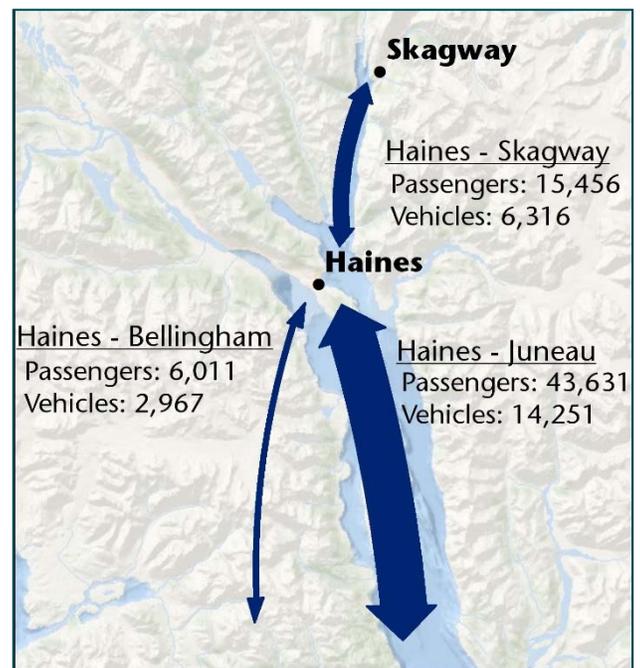


Figure 4. On-Off Passenger and Vehicle Traffic to/from Haines, Top Three Connecting Ports, 2014

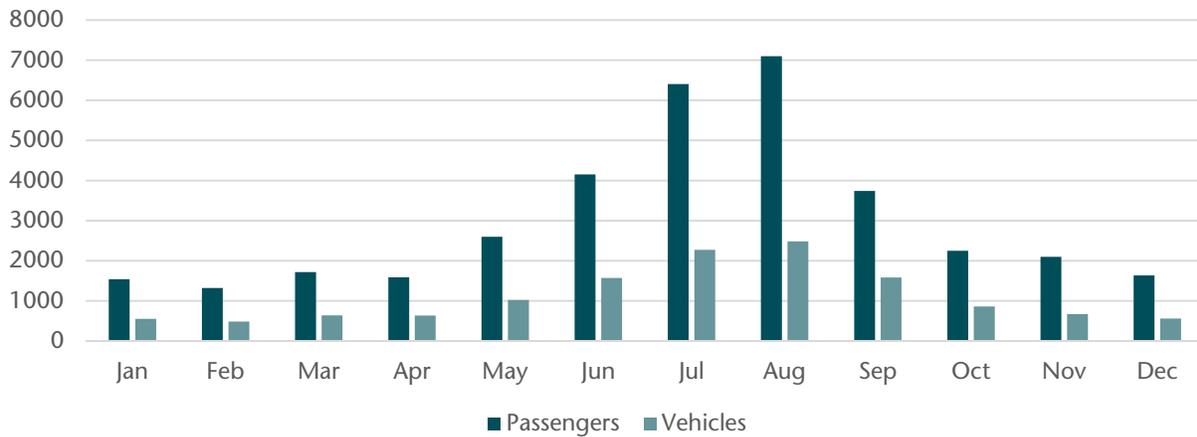


⁵ Haines Tourism Management Plan, prepared by McDowell Group for the City of Haines, 2002.

⁶ Haines Winter Visitor Industry Economic Impact and Market Assessment, prepared by McDowell Group for Haines Borough, 2015.

A chart of traffic by month (see below) reveals the high amount of traffic during the visitor season: passenger embarkations in August, the peak month (7,099) is over five times that of the low month of February (1,319).

Chart 16. Haines Passenger and Vehicle Embarkations by Month, 2014



Source: AMHS.

A series of interviews with Haines community leaders revealed the extent to which Haines is dependent on the marine highway.

- Tourism:** Haines serves a vital role in linking visitors to Southeast Alaska to the road system. According to local tourism representatives, many highway visitors avoid back-tracking; when the ferry is not available, they will skip the drive to Haines altogether. Tourism affects a wide variety of economic sectors: transportation, lodging, tours, retail, and restaurants/bars, for example. Local businesses experience significant repercussions when the ferry schedule is released late, or service is limited.

We get traffic going into the interior of Alaska, to Anchorage. We're the gateway to the rest of the state, along with Skagway.

When cuts happen to Northern Lynn Canal, it affects all of Alaska.

It's important for us that the ferry has space for cars and RVs, is running, has a consistent schedule. We really need to have the ferry running.

The ferry schedule has a major effect on our business. About 40 to 50 percent of our customers come to Haines because of the marine highway.

We felt the impact this year. We lost quite a bit of revenue this year because the ferry schedule was out so late. I'm hearing that the schedule for next year is not very good for Haines. I can feel the difference already in reservations.

There's a noticeable change when we don't have ferries. The motel gets very quiet, the town gets very quiet.

If ferry service stopped, our business would not survive.

The groups we get book a year in advance. We lose whole groups when the ferry schedule changes or is late.

- **Special events:** According to representatives, the ferry is integral to the survival of Haines' primary special events: the Home Brew Festival, the Southeast Alaska State Fair, and the Bald Eagle Festival. Significant portions of attendees use the marine highway to access the event; in the absence of the ferry, the cost, limited capacity, and cancellation risk of air travel would prevent the majority of people from attending these events. Even the schedule release can have an impact: a delay in the ferry schedule resulted in the loss of at least one-third of Bald Eagle attendees in 2015, the majority of them from outside Alaska, who need to plan their trips far in advance.

The ferry makes our events attainable, affordable.

The Alaska Marine Highway System is the only mass transit option available to Haines from other Southeast communities, and the only affordable way for most people to attend the Fair.

The ferry system is really important to our event. We noticed a fairly large decrease in attendance this last year due to some confusion on when the ferry schedule would be released.

We had work on the terminal here last year, so we didn't have the extra fast ferry. We saw our first drop in attendance at the State Fair in a decade.

We're very concerned about sustainability of our events if the ferry schedule is impacted... If the ferry system were not here, we would have a very difficult time having a regional event.

Loss of AMHS ferry service could mean a significant contraction of what is currently a very socially and economically vibrant event. Furthermore, the region would be a significantly poorer, more isolated, and more difficult place to live without it.



- **School-related travel:** Haines students traveling for sports, drama/debate, and other school-related activities are heavily reliant on the ferry system. Traveling by air is an option but prohibitively expensive, and subject to frequent cancellations. According to school district representatives and parents, student activities have already suffered from the recent decline in service, with some trips cancelled. An additional burden associated with service declines is when infrequent ferries force students to take extra days off of school to attend events outside Haines. The ferry schedule has a major impact on school-related travel, and in turn on the students, and their families.

It's so hard to travel in the winter, we left on a Tuesday, for an event that started on Friday. We're going to fly one way but the weather is really difficult. To participate in our kids' activities, you have to miss a week of work.

When kids interact with other schools and other activities, it's part of a well-rounded education. Without the ferry system, we will truly limit that activity for our kids.

We probably use the ferry every week transporting the kids to/from regional events, from 10 to 30 kids... I can't stress enough how important it is. We rely on the ferry all the time.

In summary, the ferry’s critical role in Haines’ economy and way of life cannot be overstated. Many contacts made general statements about the dependence of local residents on the ferry system.

If people have a choice of where to live, if people don’t have the option of ferry, they’re not going to want to live in Haines.

You book your whole life around the ferry schedule.

The marine highway system is critical to the community as a whole.

The ferry is our highway. It’s how we get to the rest of our region, Southeast Alaska. Without good ferry service, even though we’re on the road, we’re stuck.

As we try hard to improve the economic status of our community, if we can’t count on the ferry system, that puts a wrench in the plans.

The ferry is a critical part of our success or failure...This is our road system. It just happens to be on the water.

AMHS expenditures and employment in Haines represent additional impacts in the community.

- AMHS employed 51 Haines residents in 2014, accounting for \$5.0 million in wages and benefits.
- AMHS spent \$209,000 with Haines businesses in 2014, including \$207,000 in operational expenditures and \$2,000 in capital expenditures.

Table 10. AMHS Employment and Spending in Haines

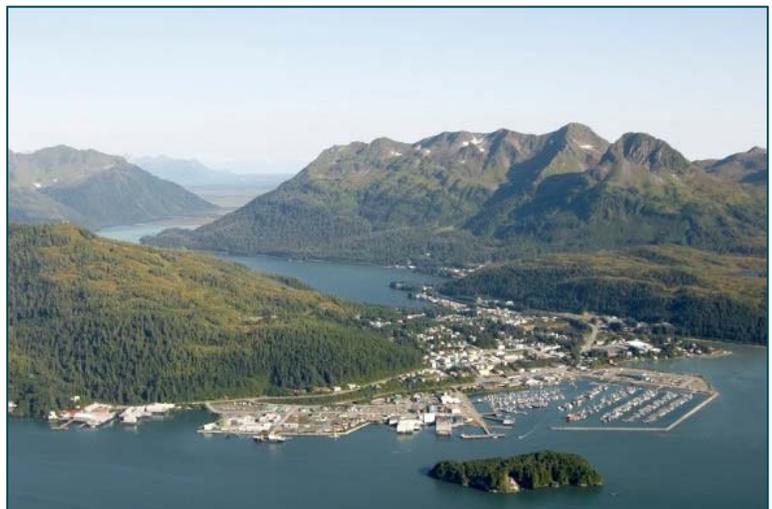
Number of AMHS employees	51
Payroll and benefits	\$5.0 million
Total expenditures	\$209,000
Operational expenditures	\$207,000
Capital expenditures	\$2,000

Source: AMHS.

Cordova

Cordova, a community of 2,200 on Prince William Sound, is heavily reliant on AMHS for transportation of both goods and residents. The ferry is particularly critical to the local commercial fishing and seafood processing industries. Cordova hosts a fleet of more than 450 commercial fishing vessels and a number of processing plants; in 2014, more than 41 million pounds of salmon was harvested by Cordova residents.⁷ Other key industries in the community include government, education, health care, and tourism. The US Forest Service and the US Coast Guard maintain operations in Cordova.

Ferry service plays a unique role in the shipment of freight to and from Cordova. While much of the freight arriving in the



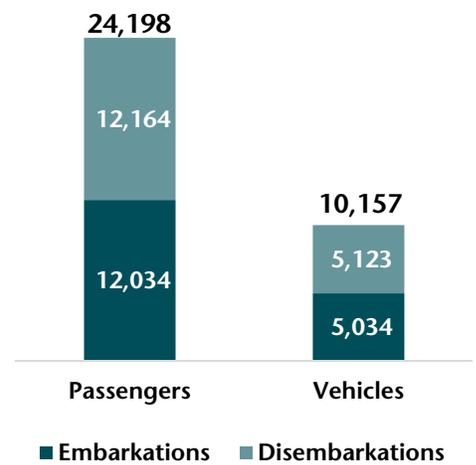
⁷ Commercial Fisheries Exchange Commission.

community is shipped via barge service from the Lower 48, Cordova retailers use AMHS service to ship freight from Anchorage.

During the summer visitor season, ferry service is used by travelers to Cordova, embarking from either Whittier or Valdez. While the community does have daily jet service, the ability to take a vehicle on the ferry enables residents to transfer goods from the Kenai Peninsula, Anchorage, and the Mat-Su Valley. Residents also purchase vehicles and get them serviced via AMHS. In addition to these markets, ferry service supports the following activities:

- Commercial fishermen use the ferry to transport nets, line, equipment, and other supplies from the Kenai Peninsula, Anchorage, Mat-Su Valley, and other locations to Cordova.
- Seafood processors transport fresh fish from Cordova to processing plants in Anchorage and other locations. Processing employees, equipment, and supplies are transported to Cordova, mainly from Whittier.
- Medical travel, primarily to Anchorage, is a common usage of AMHS by Cordova residents.
- Local stores move non-perishable items (dry goods, construction supplies, furniture, etc.) into Cordova using the ferry.
- Students use the ferry to travel to sport, academic, and other events.
- Conferences and festivals in Cordova benefit from increased travel options into Cordova.

Chart 17. Cordova AMHS Passenger and Vehicle Traffic, 2014



Source: AMHS.

Figure 5. On-Off Passenger and Vehicle Traffic to/from Cordova, Top Two Connecting Ports, 2014



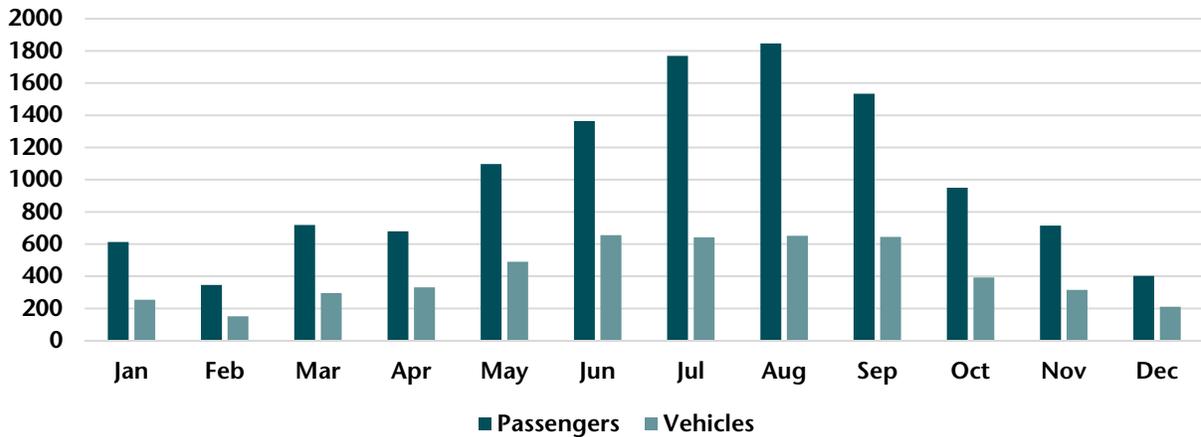
In 2014, more than 24,000 passengers and 10,000 vehicles embarked and/or disembarked in Cordova (see Chart 17). Four-fifths (83 percent) of 2014 passenger embarkations at Cordova were by Alaska residents.

Whittier is the primary destination for Cordova residents and travelers. In 2014, roughly 21,000 passengers and nearly 9,000 vehicles traveled to/from Whittier and Cordova. Valdez saw approximately 3,500 passengers and nearly 1,200 vehicles arrive from or depart to Cordova in the same period. Container vans either unloaded or offloaded at Cordova totaled 259.

The most important factor driving traffic to Whittier is the port's proximity to Anchorage. While Valdez is 300 road-miles from Anchorage, the distance from Whittier to Anchorage is 60 road-miles.

Similar with other AMHS ports, ferry volume is much higher in the summer. By month, passenger embarkations peaked in August of 2014 at 1,846, more than five times the amount of the lowest month (February; 346 embarkations).

Chart 18. Cordova Passenger and Vehicle Embarkations by Month, 2014



Source: AMHS.

Interviews were conducted with local leaders to gain a better understanding of the impact ferry service has on Cordova. A number of themes emerged from these discussions, summarized below.

- Seafood processing:** Cooper River Seafoods uses ferry service to transport fresh seafood from Cordova to Whittier, where it is then trucked to a processing plant in Anchorage. The facility supports 250 seasonal and 100 full-time jobs in Anchorage. Other seafood processors in the community use the ferry service as well.

In 2014, we spent over a million dollars on Alaska Marine Highway System services. We ship our own trucks on the ferry three to seven times a week from early May until late September.

We transport fresh fish and equipment from Cordova to Whittier. From Whittier to Cordova, we transport groceries, packaging materials, processing supplies, spare parts, and equipment daily to keep our Cordova plant operational. Both directions transport employees to and from Cordova.

Our fresh products need to be on the market ASAP. Any delay in the process has a negative impact on our sales. The only fast option besides the fast ferry is air travel, which is many times more expensive. Copper River Seafoods uses the ferry to move millions of pounds of fresh seafood from Cordova to Anchorage during the months of May through October.

Ferry service helps keep costs low which in turn makes it economical to bring this resource to Anchorage for value-added processing. The alternative is to take this product directly to Seattle for processing, eliminating hundreds of Alaskan positions. There is a severe shortage of airfreight capacity out of Cordova requiring us to rely heavily on the ferry to make those connections in Anchorage. We know many people living and working in regions of Alaska served by the ferry system rely heavily on it and have likely expressed their concerns to the reductions in services.

We feel it is also very important to discuss the effect these reductions have on businesses both of the region and the greater State of Alaska. If we are unable to economically move our fish from Cordova to Whittier we will not have the ability to return the highest value for those fish. We will be forced

to freeze fish that would have been worth more in a fresh state, depressing the value returned to the fishermen and the State. Freezing fish will allow us to ship it to Seattle to be further processed both reducing its value while also moving Alaskan jobs out of state.

- **Commercial fishing:** Commercial fishermen are heavily reliant on the ferry service to move supplies. The most activity occurs in the spring and fall when fishermen are preparing for or finishing the seine and driftnet salmon fisheries in Prince William Sound.



Ferry service is fairly affordable; more affordable than having fishermen commercially ship what they need.

Fishermen from around the state come to Cordova each summer. The ferry allows movement of nets, equipment, and supplies in and out of the community.

- **Tourism:** Ferry use is highest during the summer, attributable in part to visitors. Representatives stated that without ferry service, the local hospitality industry would be severely damaged. Reliable service was another theme which emerged from discussions; if tourists are not able to plan ahead because of uncertainty surrounding the ferry service, many will cancel.

We lost thousands of dollars this summer in canceled booking after the ferry service limited service.

When tourists come to Cordova they spend money in the community. Every cancellation is lost income for local businesses.

We have been trying to expand our tourism business around the fast ferry. The fast ferry is an attraction itself; tourists like riding it.

Many tourists come by ferry because it is cheaper than flying.

Because our visitor season is so short, even a week of cancellations is extremely harmful to us.

- **Community sustainability:** Interviewees discussed how much they value being able to travel to the road system by ferry. A number of contacts mentioned that easy access to Anchorage allows residents to reduce "cabin fever." One source noted one of the reasons their family moved to Cordova was because the ferry service provided travel options.

We looked at a number of locations in Alaska to move to once we decided our kids should be raised in a small town. In addition to other factors, we chose Cordova because of quick access to Anchorage.

It is great for people in Cordova to be able to take a trip in the winter. Even just a day trip to Anchorage is enough to feel rejuvenated after weeks of rain and darkness.

The ferry is important to the culture of our community. Many people have great memories of traveling somewhere on the ferry.

Without reliable transportation, it is difficult to attract professionals to Cordova.

You talk to most employers in town, they will tell you that AMHS is absolutely critical to recruitment and retention of employees. It's a big selling feature.

- **Impact on Anchorage:** The impact of Cordova resident's spending in other Alaska communities, primarily Anchorage, was noted by many contacts as a result of ferry service. It is common for residents to do their shopping in Anchorage and bring purchases back on the ferry. Many in the community schedule these trips around medical appointments.

The ferry is our highway. It allows us to spend money in Anchorage—I probably spend \$2,000 to \$3,000 per trip on groceries, clothes, and household products. And I make five to seven trips per year. But with the unreliable ferry service I am starting to purchase groceries on Amazon Prime; I am purchasing more stuff from Seattle.

If I have to fly over to Anchorage for a medical appointment, I may as well go to Seattle. Cheaper medical cost and just a few more hours on the plane.

We had an informal meeting with some of the local businesses. We estimated we spend \$10 to \$15 million per year in Anchorage.

- **School-related travel:** Cordova students traveling for sports, drama/debate, and other school-related activities nearly always use the ferry. While flying is an option, the price is much higher: one contact estimated it was three times more expensive to fly than take the ferry.

The ferry service really allows our kids to participate in statewide activities. Without ferry service we would have to fly our students out, and I don't know if we could afford that.

We want our student to be exposed to different people, cultures, perspectives, and events.

In summary, ferry service plays an important role in Cordova's economy and culture. Interviewees made general statements about the dependence the community has on the ferry system.

The ferry is threaded into everything we do.

We have been building our economy around the marine highway, especially the fast ferry, for over 10 years.

The Coast Guard relies on the ferry system. They use the ferry system to bring people/supplies in and out.

I'm actually starting to buy more items through Amazon, especially as ferry service becomes unreliable.

Any reduction in ferry service will result in higher prices in local stores.

AMHS expenditures and employment in Cordova represent additional impacts in the community.

- AMHS employed 19 Cordova residents in 2014, accounting for \$1.9 million in wages and benefits.
- AMHS spent \$652,000 with Cordova businesses in 2014, including \$612,000 in operational expenditures and \$40,000 in capital expenditures.

Table 11. AMHS Employment and Spending in Cordova

Number of AMHS employees	19
Payroll and benefits	\$1.9 million
Total expenditures	\$652,000
Operational expenditures	\$612,000
Capital expenditures	\$40,000

Source: AMHS.

Angoon

Angoon is the only permanent, year-round community located on Admiralty Island in Southeast Alaska. In 2014, Angoon's population was estimated at 446.⁸ Nearly 90 percent of the population are Tlingit, and many residents support themselves through a subsistence lifestyle.⁹ Local government, education, and health care are key sources of wage and salary jobs, and tourism provides a number of jobs during the summer months.



Lacking both regularly scheduled barge service and an airport, transportation to and from the community is limited. AMHS ferry service and float planes are the only options for residents, businesses, and other organizations to transport goods and passengers to and from Angoon. As one of the few Alaska communities without an airport, Angoon is particularly reliant of AMHS service, especially when float planes are not able to fly. Ferry service helps support the following business and resident activity:

- **Lodges** use the ferry service, when possible, to transport supplies from other Southeast communities, primarily Juneau.
- **Schools** regularly transport books, furniture, and food from Juneau.
- **Students** use the ferry to travel to sport, academic, and other events.
- **Businesses** restock using AMHS service to ship wholesale items into Angoon.
- **Shopping/recreation** by Angoon residents is supported by ferry service which allows travel to other communities.
- **Medical travel**, primarily to Juneau, is a critical usage of the ferry by Angoon residents.

⁸ US Census.

⁹ US Census.

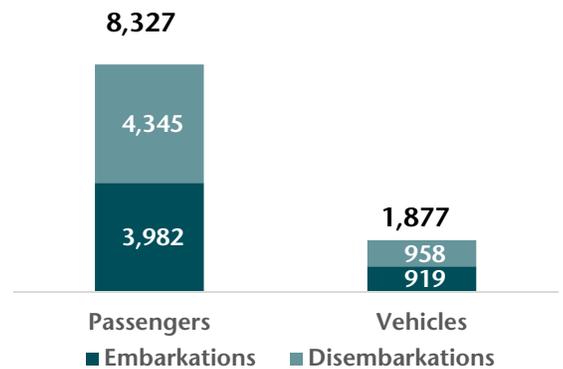
In 2014, more than 8,300 passengers and nearly 1,900 vehicles embarked or disembarked in Angoon (see chart at right). While Angoon’s traffic is low compared to most other AMHS ports, it is high relative to population. Out of 28 AMHS ports not connected by road, Angoon has the fourth-highest ratio of population to traffic. For every one resident, there are 9.6 passenger embarkations annually.

Container van traffic to or from Angoon included 142 vans in 2014, primarily traveling to/from Juneau and Hoonah. On a per capita basis, Angoon is one of the communities most dependent on AMHS freight service.

Juneau is the primary destination for Angoon residents and travelers (see map at right). In 2014, more than 6,608 passengers and nearly 1,494 vessels traveled to/from Juneau and Angoon. Other important ports for Angoon include Hoonah and Sitka, accounting for 500 and 776 passengers in 2014, respectively.

In contrast to other AMHS port communities, Angoon ferry volume does not exhibit significant seasonal fluctuation (see chart, below). The primary reason for this is a relatively limited visitor industry and limited nearby commercial fishing activity. In 2014, peak embarkations of 488 passengers occurred in October, and average monthly embarkations was approximately 330 passengers.

Chart 19. Angoon AMHS Passenger and Vehicle Traffic, 2014



Source: AMHS.

Figure 6. On-Off Passenger and Vehicle Traffic to/from Angoon, Top Three Connecting Ports, 2014

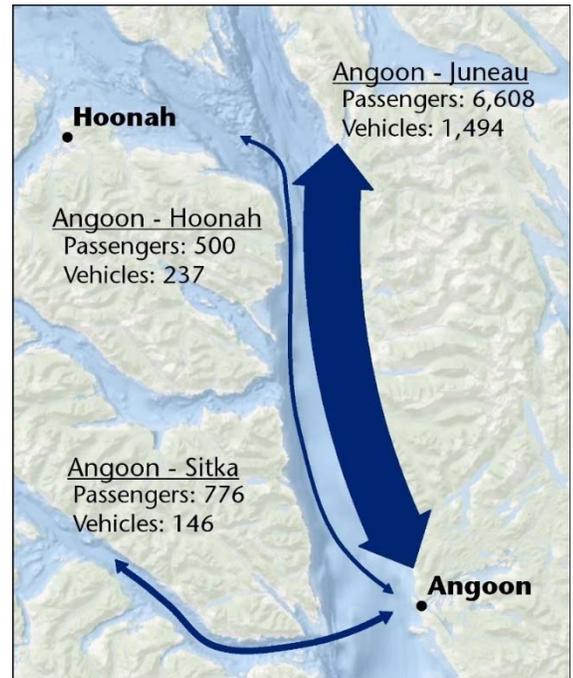
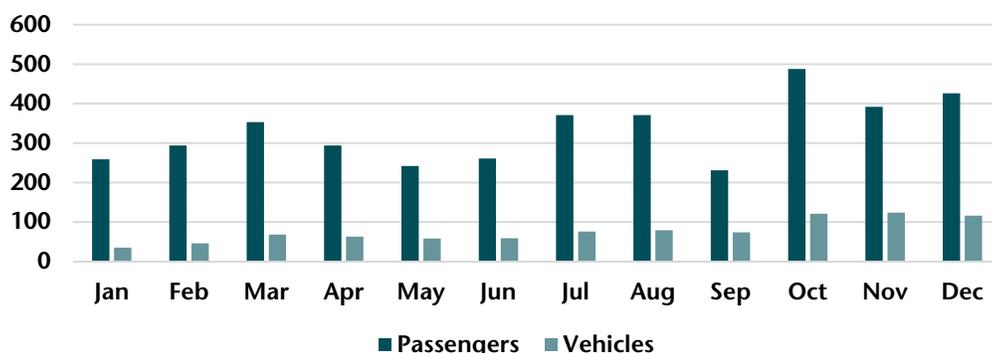


Chart 20. Angoon Passenger and Vehicle Embarkations by Month, 2014



Source: AMHS.

Interviews were conducted with local leaders to gain a better understanding of the impact ferry service has on Angoon. A number of themes emerged from these discussions.

- **Community sustainability:** Many contacts affirmed AMHS' vital importance to the community.

We basically have no other options besides the ferry. We have no barge landing and no airport. We get the mail plane three times a week in the summer, two times a week in the winter. When the weather is bad and the mail stacks up, mail is placed on the ferry.

If AMHS stopped service, the population would drop substantially.

It is extremely difficult to attract and retain employees in Angoon. If ferry services were limited, this would have a huge impact on our local workforce.

- **Impact on other communities:** With limited local retail and grocery stores, interviewees said it is common for residents to shop in other Southeast communities. Several contacts pointed to the economic impact occurring from Angoon residents spending money in these communities.

Most people make a trip over to Juneau at least once a month where they buy food, supplies, and maybe go to a medical appointment. Our residents spend a lot of money outside Angoon.

We purchase about 40,000 gallons of fuel each year from a company in Petersburg.

- **Reliable service:** A number of contacts explained reliable service was the most important factor AMHS should be considering.

We have not been able to schedule guest movement on the ferry because it is not reliable. Instead we charter planes and vessels at a substantial cost to our lodge.

Sure the fast ferry is great, but if it is tied up to the dock because of rough weather, what is its value?

We don't need a fast ferry; we need a reliable ferry.

We could get by with ferry service once a week. Maybe even once every two weeks. But we need it to be reliable.

In summary, ferry service plays an important role in Angoon's economy and culture. Interviewees made the following additional statements about the dependence the community has on the ferry system.

It is really difficult to put a coffin in a plane. Ferry service allows us to return our loved-ones to Angoon when they pass away in other communities.

As a local business owner, I would be willing to pay more for ferry service. This community will not survive without AMHS.

Floatplanes can't always fly. Usually the ferry is reliable enough to make it through weather planes can't fly in.

If we lost ferry service our business would likely go bankrupt having to deal with increased shipping costs.

Impacts of Reduced AMHS Service

This report details the many and diverse ways AMHS impacts Alaska's economy. As the State of Alaska considers various ways to close its budget gap, it is important to consider the role of AMHS from another perspective: what happens to Alaska's communities and residents when AMHS reduces service? Following are the types of impacts that can be expected from reduced ferry service.

- **Loss of return on investment:** For every dollar of General Fund money not budgeted to AMHS, there will be \$2.30 less economic activity in Alaska.
- **Loss of AMHS employment and wages:** Communities like Ketchikan and Haines, small towns with relatively high AMHS employment (and less diversified economies), will be particularly hard hit by AMHS employment and wage cuts.
- **Loss of AMHS spending with local businesses:** Cuts to AMHS service will affect a wide range of Alaska businesses that AMHS makes purchases from, such as engineering firms, fuel companies, shipyards, and food suppliers.
- **Loss of spending by non-residents:** Fewer ferries means fewer out-of-state visitors traveling to Alaska's coastal communities and spending money there on lodging, retail, transportation, and tours. These outside-sourced dollars are particularly valuable as they generate new jobs and income for Alaska residents, and impact a wide variety of economic sectors.
- **Reduced seafood shipment capacity and loss of income to fishermen:** Reduced AMHS service will negatively impact seafood processing companies and, in turn, the fishermen from whom they purchase products.
- **Increased cost-of-living in coastal communities:** Fewer ferries will lead to increased cost of goods, as communities scramble to find other ways of transporting goods in and out – groceries, construction equipment and supplies, household goods, and more will all cost more as transportation costs rise.
- **Decline in quality of health due to limited access:** With fewer ferries, residents of coastal communities will be forced to fly to access the health care they need – and many may choose to postpone care, or may decide they cannot afford the associated airfare costs.
- **Fewer and/or shorter regional special events including cultural events:** Many regional events, such as the Southeast Alaska State Fair (Haines), Celebration (Juneau), and the Copper River Wild Salmon Festival (Cordova), rely on AMHS to transport significant portions of their attendees. The cost and limited capacity of air service would preclude many attendees from participating, and the local economy would lose valuable visitor spending. Further, residents would miss out on these unique opportunities to interact with, do business with, and learn from each other.
- **Reduced school-related travel:** Reduced AMHS service will limit the opportunities for students in coastal Alaska to compete in sporting events, attend performing arts events, and attend student

leadership training, among other school activities. Air service is often prohibitively expensive for schools and students, and subject to weather cancellations. Students in coastal Alaska will suffer from a reduced ability to participate in these enriching and valuable activities.

In conclusion, the impacts of reduced AMHS service will be broad and far-reaching, affecting a diverse range of Alaska residents, businesses, and organizations. The economies of Alaska's smaller and more isolated coastal communities will be particularly hard hit.

Case Study Contacts

HAINES

Fred Bretthauer, Haines Hitch-Up RV Park

Jessica Edwards, Southeast Alaska State Fair and Great Alaska Craft Beer and Home Brew Festival

Mike Gainy, Alaska Marine Lines

Jan Hill, Mayor of Haines Borough

Alison Jacobson, Alaska Fjordlines

Cheryl Katsik, Captain's Choice Motel

Leslie Ross, Haines Convention and Visitors Bureau

Sarah Swinton, Olerud's Market Center

Tiana Taylor, Haines School District

Samanth Wolson, American Bald Eagle Foundation

CORDOVA

John Bitney, City Lobbyist

Jennifer Gibbons, The Cordova Times, Cordova Chamber of Commerce

Barb Jewel, School Board President

Jim Kasch, Cordova Mayor

Martha Nichols, Prince William Motel

Alex Russin, Cordova School District Superintendent

Cassandra Squibb, Copper River Seafoods

ANGOON

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Maxine Thompson, former Angoon Mayor, Angoon Oil & Gas, Marine Transportation Advisory Board

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