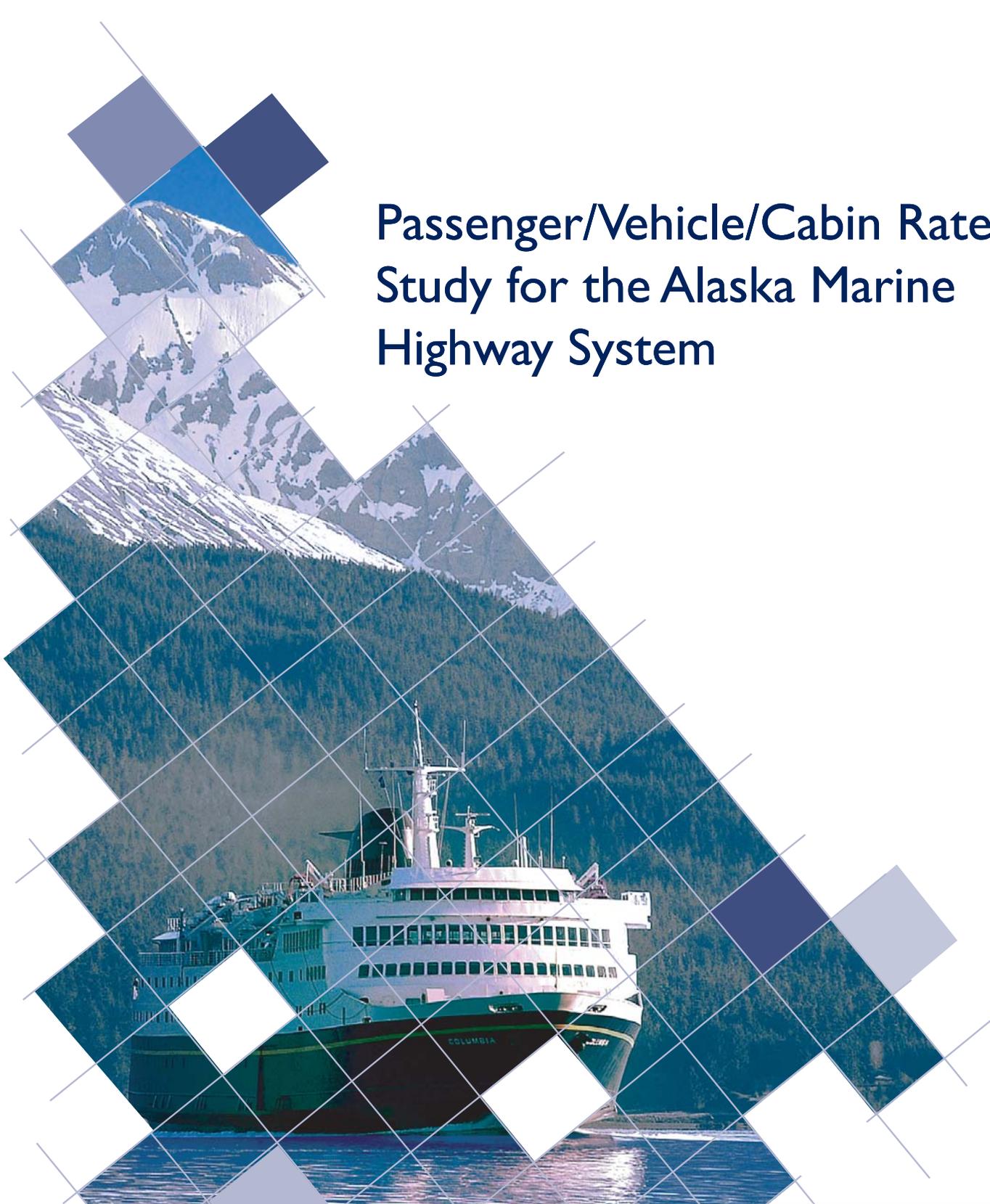


Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System



northern  **economics inc.**

Prepared for

Alaska Department of Transportation
and Public Facilities/Alaska Marine
Highway System

April 2008

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Executive Summary

Introduction

This report contains information and data on fares for all route segments within the Alaska Department of Transportation and Public Facilities, Alaska Marine Highway System (AMHS) service area, rates for alternate modes of transportation within the study area, and rates for similar ferry systems around the world. The analysis in this report assumes economic efficiency is a goal of the AMHS rate structure, that fares should be representative of the costs of providing service on a route, and that unusually high or low rates that do not reflect differences in the cost of providing a service are to be explicitly justified using other considerations.

AMHS fares analyzed are for the Summer 2008 season—May 1, 2008 to September 30, 2008. Fares for other ferries and marine carriers are for the same period. Fares for air transport are for travel in March 2008. Five classes of service are analyzed in this report: Adult, One-way; Vehicles Up to 19 Feet; Two Berth Cabin-Outside-Complete Facilities; Two Berth Cabin-Inside-Complete Facilities; and a 40-foot Van. The AMHS will use information contained in this study to make future decisions regarding all aspects of its rate structure.

A total of 181 AMHS routes are categorized into five major geographic service regions and four distance classes. These geographic service regions are:

- **Southeast Inside Passage**—routes providing service between Bellingham or Prince Rupert and Skagway; segments typically take more than one day for a ship to travel and carry a high percentage of tourists in the summer
- **Southeast Feeder**—connect smaller communities in Southeast, Alaska with communities that serve as regional centers; vessels typically depart home port in the morning and return on the same day
- **Cross Gulf**—also known as “inter-tie trips,” sailings utilize a vessel certified to operate in open-waters and connect Southeastern Alaska with Southcentral and the Southwest portions of the state; all sailings include a stop at Yakutat
- **Southcentral**—routes serve communities in Prince William Sound
- **Southwest**—routes include Kodiak Island, the Alaska Peninsula, and the Aleutian Islands

Findings

The average fare per nautical mile is strongly influenced by route length, with fares per nautical mile for longer routes being both lower and less variable than fares for shorter routes. A total of five distance categories have been selected based on differences in fare patterns that are common to all regions and services:

- 0 to 50 miles
- 51 to 100 nautical miles
- 101 to 300 nautical miles
- 301 to 500 nautical miles
- 501 or more nautical miles

System wide, the average fare per nautical mile for each service class decreases as average route length increases (See Table ES-1). Average AMHS rates for the five distance categories are shown in Table ES-1. Average one-way passenger fares for routes longer than 500 nautical miles are 33 percent of average fares for routes of up to 50 nautical miles. For vehicles up to 19 feet, the average fare for routes longer than 500 miles is 41 percent of the average fare for routes of up to 50 miles. Average fares on routes over 500 nautical miles are respectively 15 and 20 percent of the 0 to 50 nautical mile average fares for Two Berth Cabin-Outside-Complete Facilities and Two Berth Cabin-Inside-Complete Facilities.

Table ES-1. AMHS Average, One-Way Fares per Nautical Mile by Service and Distance

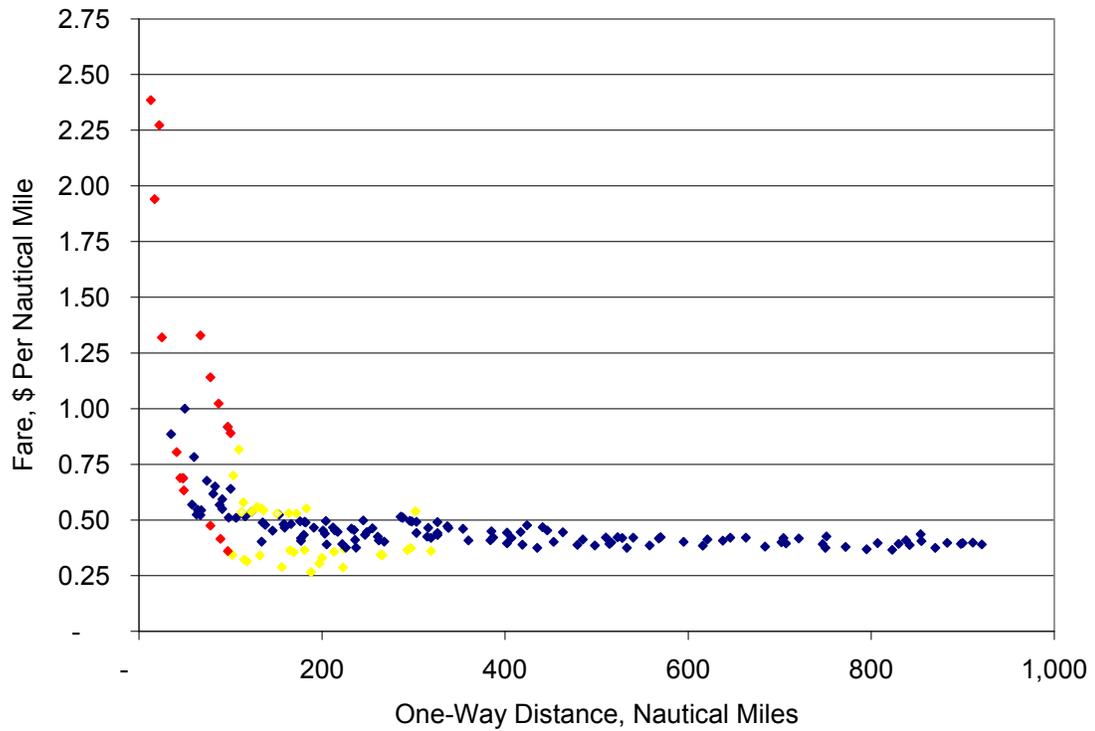
Distance, Nautical Miles	Passenger	Two berth cabin- outside-complete facilities	Two berth cabin- inside-complete facilities	Vehicles up to 19 feet	40-foot commercial van/container
0 to 50	1.21	2.04	2.50	2.63	6.02
51 to 100	0.68	0.78	0.72	1.44	3.93
101 to 300	0.46	0.53	0.44	1.14	3.19
301 to 500	0.43	0.45	0.40	1.13	3.18
501 Plus	0.40	0.41	0.37	1.07	3.07

The charts in Figure ES-1 plot the fare and route distance for each of the five AMHS services analyzed. The red symbols show those route segments that are 25 percent above or below the average fare price for all route segments in each of the 1 to 50 and 51 to 100 nautical mile categories. The yellow symbols show those route segments that are 15 percent above or below the average fare price for route segments in each of the remaining distance categories. The blue symbols are within the percentage thresholds established for each distance category.

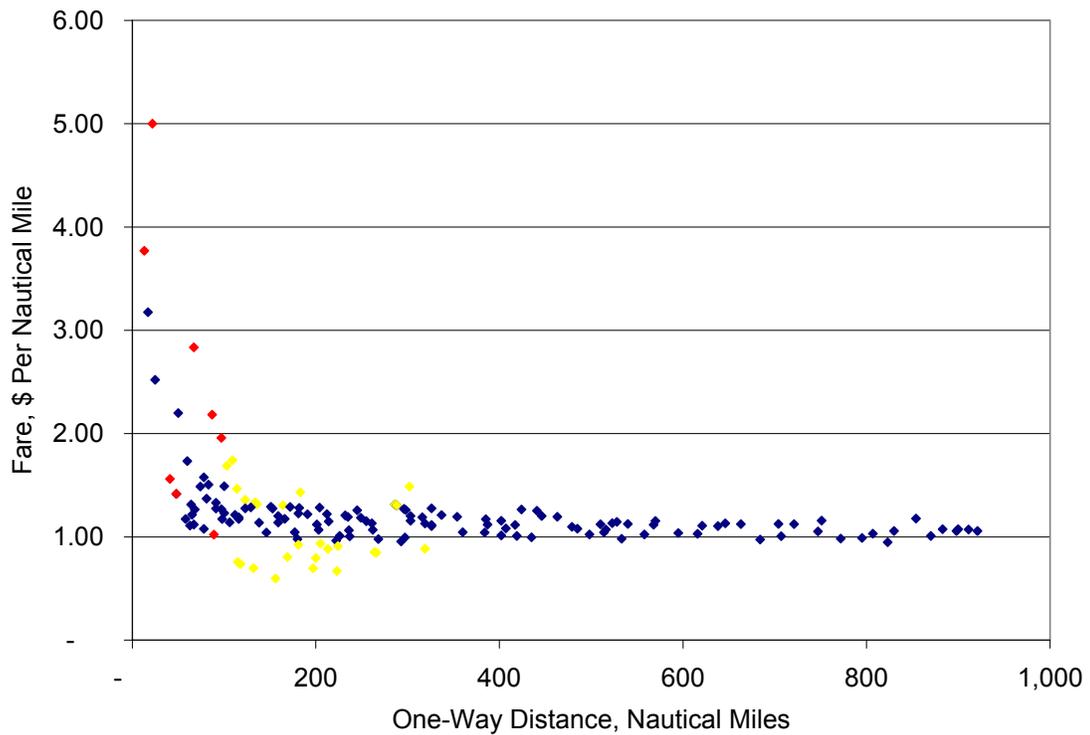
For each service, fares for routes of 501 plus nautical miles are relatively stable, e.g. fares per nautical mile tend to be the same regardless of the route and the points tend to form a smooth line. The greatest variation in fares per nautical mile occurs on routes of 0 to 50 nautical miles in all regions and for all service classifications; the plotted values indicate large differences in fares for similar distances and do not form a single smooth line. Fares on routes of 51 to 100 nautical miles also exhibit high levels of variation, while fares per nautical mile on routes longer than 300 nautical miles exhibit very little variation.

Figure ES-1. Fare Per Nautical Mile, by Service and Distance Category

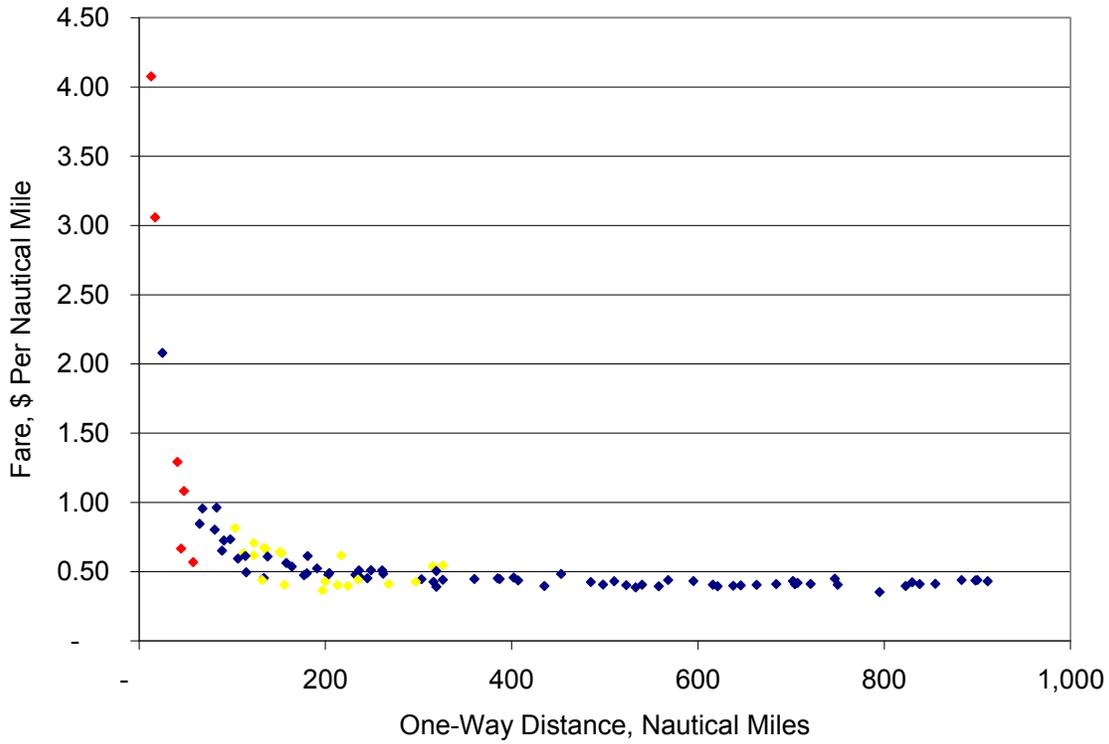
Passenger



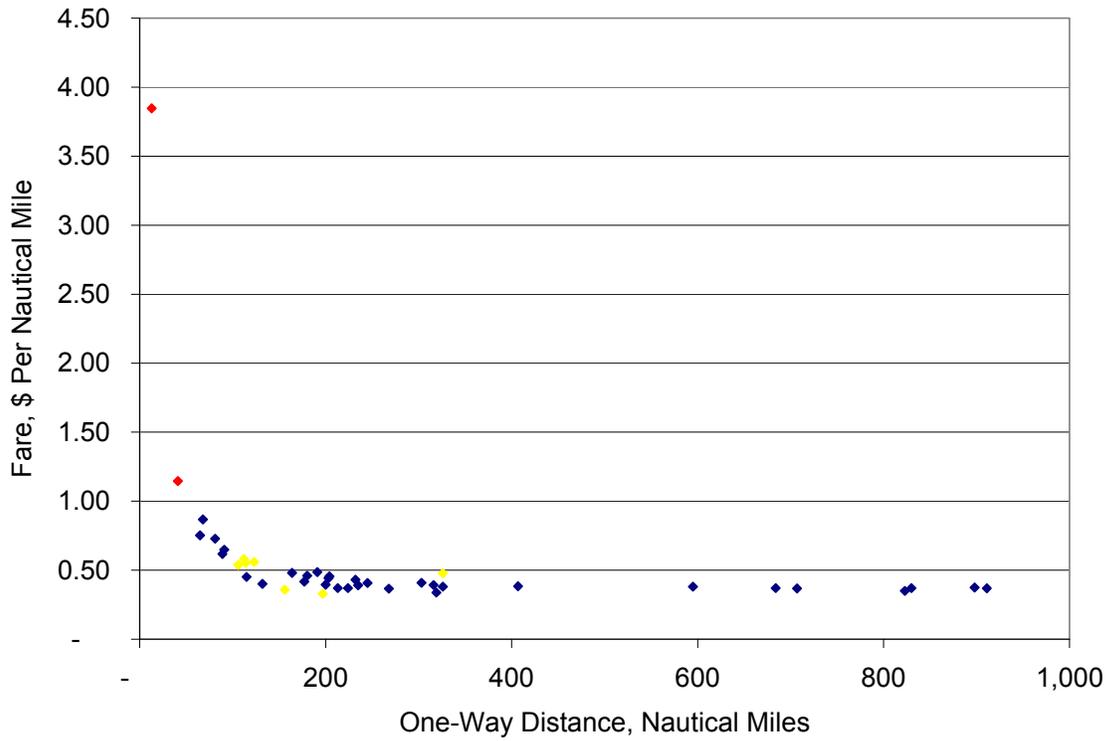
Vehicles Up to 19 Feet



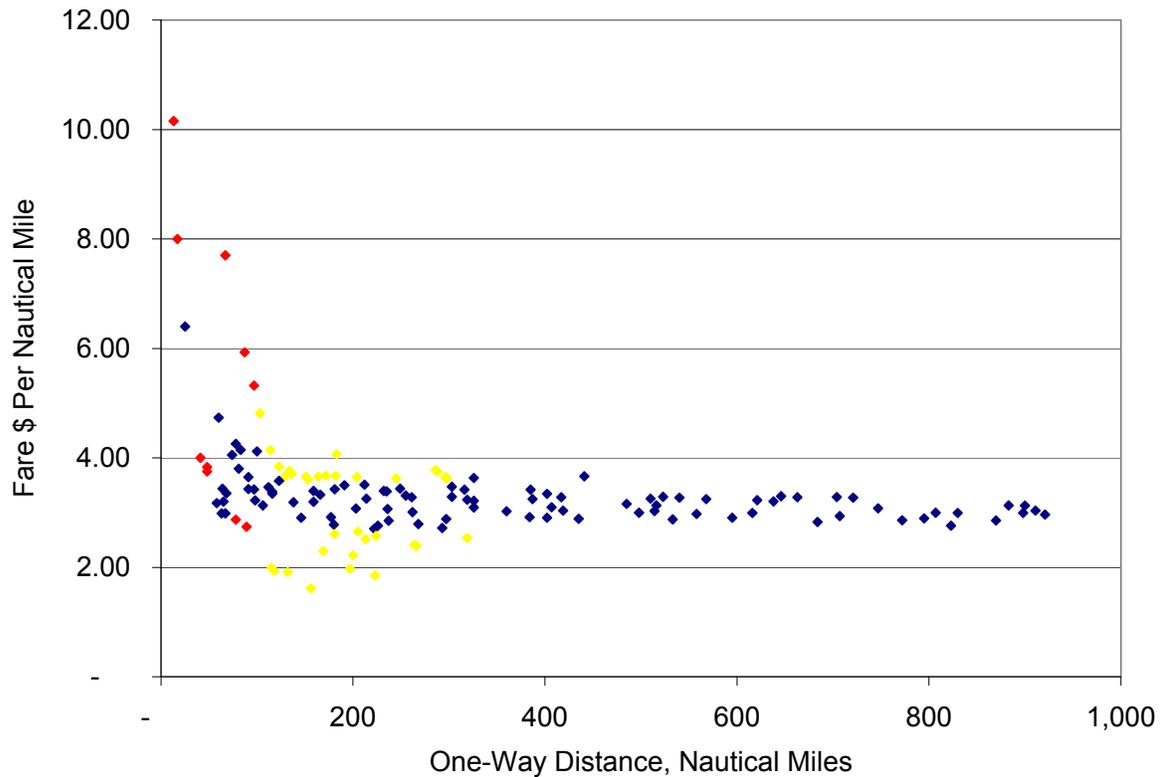
Two Berth, Outside, Full Facilities



Two Berth, Inside, Full Facilities



40 Foot Van/Container



The average one-way, adult fare per nautical mile for routes up to 300 nautical miles is highest in the Southcentral region of the AMHS. Cross Gulf routes have the highest average one-way, adult fare per nautical mile for distances longer than 300 nautical miles. Southeast Feeder routes have the lowest average one-way, adult fare per nautical mile for routes shorter than 51 nautical miles and for routes of 100 to 300 nautical miles. The average fare for routes of 51 to 100 and over 500 nautical is lowest for routes in the Southeast Inside Passage. For routes from 301 to 500 nautical miles, the average fare is lowest in the Southwest. The pattern of low average fares in the Southeast and high average fares in the Southcentral is repeated for vehicles of up to 19 feet. For routes shorter than 100 nautical miles and routes over 500 nautical miles, average fares for outside cabins are lowest in the Southwest. Southeast Inside Passage routes have the lowest average fare for cabins on routes of 101 to 300 nautical miles.

Table ES-2. AMHS System-wide and Regional, Fare Ranges by Service

System	Fare Range Per NM									
	Passenger		Vehicle Rate - Up to 19 FT		OW, Cabin Fare - 2 berth				Commercial, 40-FT Van/Container	
	Adult OW		Does Not Include Driver		Inside, Full Facilities		Outside, Full Facilities			
	Low	High	Low	High	Low	High	Low	High	Low	High
AMHS, System-wide	0.27	2.38	0.60	5.00	0.33	3.85	0.35	4.08	1.62	10.15
Southeast, Inside Passage	0.27	2.38	0.60	3.77	0.33	3.85	0.37	4.08	1.62	10.15
Southeast, Feeder	0.32	0.89	0.76	1.73	0.45	0.75	0.50	0.85	1.98	4.73
Cross Gulf	0.42	0.54	1.14	1.49						
Southcentral	0.34	2.27	0.85	5.00					2.39	7.70
Southwest	0.37	1.94	0.98	3.18			0.35	3.06	2.85	8.00

A total of 54 of the 181 AMHS routes analyzed have passenger fares that are 25 percent above or below the average for routes of “0 to 50’ or “51 to 100” nautical miles or that are 15 percent above or below the average for routes of “101 to 300’, ‘301-500’ or “501 Plus” nautical miles and are classified as having unusually high or low fares. For vehicles up to 19 feet, inside cabins, outside cabins, and 40-foot containers, 39, 12, 29, and 44 routes respectively had fares that are unusually low or high.

Sitka has the highest number of routes, 11 of 13, where passenger fares are unusually low. Additionally, 10 of 13 Sitka routes have fares for vehicles up to 19 feet that are unusually low; 6 of 13 routes have unusually low fares for outside cabins; and 4 of 13 routes have unusually low rates for inside cabins. Tenakee has the second highest number of routes with unusually low passenger fares, 6 of 13.

Both passenger fares and fares for vehicles up to 19 feet are unusually high on 4 of the 7 routes from Chenega Bay. Passenger fares from Valdez are unusually high on 3 of 8 routes, and fares for vehicles up to 19 feet are unusually high on 4 of 8 routes. Additionally, 3 of the 7 Chenega Bay routes and 3 of the 8 Valdez routes have fares for 40 foot containers/vans that are unusually high.

AMHS passenger fares for routes longer than 50 nautical miles are lower than average off-peak fares of the other ferry routes analyzed (See Table ES-3). Passenger fares for routes 0 to 50 nautical miles and for inside and outside cabin services at all distances tend to be between the peak and off-peak fares for other ferry services. With the exception of routes of 51 to 100 miles, average fares for vehicles up to 19 feet are higher than average peak fares for other ferry routes. The other ferry systems typically have much higher passenger and vehicle volumes than AMHS, which could account for the difference in pricing since AMHS would need to have higher fares than the other ferry systems to meet its revenue requirements.

Table ES-3. Average Fares Per Nautical Mile, AMHS and Comparable Ferry Systems, by Distance and Season

Dist. Cat.	Passenger			Vehicles Up to 19 Feet			Inside Cabin			Outside Cabin		
	Peak	Off Peak	AMHS	Peak	Off Peak	AMHS	Peak	Off Peak	AMHS	Peak	Off Peak	AMHS
0 to 50	1.51	0.96	1.21	2.44	1.61	2.63	2.93	1.50	2.50	3.07	1.71	2.04
51 to 100	1.14	0.84	0.68	1.89	1.36	1.44	1.04	0.58	0.72	1.23	0.75	0.78
101 to 300	0.83	0.70	0.45	0.91	0.66	1.12	0.63	0.41	0.44	0.71	0.50	0.53
301 to 500	0.91	0.63	0.44	0.42	0.41	1.14	0.48	0.23	0.40	0.58	0.33	0.45
501 Plus	0.82	0.57	0.40	0.38	0.38	1.07	0.39	0.20	0.37	0.41	0.23	0.41

Note: Fares for foreign carriers are adjusted to U.S. dollar values using exchange rates for March 7, 2008.

Passenger fares for air carriers serving communities on the AMHS route system charge fares that are much higher per nautical mile, between two and a half and almost four times higher on routes shorter than 300 miles, when routes are measured in flying distances (See Table ES-4). Because sailing distances are usually longer than flying distances, comparing total ticket costs provides a better measure of the relative cost of ferry and air services.

Table ES-4. Average One-way Passenger Airfare per Nautical Mile, Direct Flight

Distance Category	2 Week Advance Purchase	Same Day Flight Purchase
0 to 50	3.36	3.43
51 to 100	2.29	2.57
101 to 300	1.19	1.56
301 to 500	0.37	0.73
501 Plus	0.40	0.48

Air fares for a total of 31 routes that have direct air service between AMHS ports are analyzed in this report. Airline tickets purchased at least two weeks before travel for AMHS routes up to 300 nautical miles cost from 79 to 314 percent more than fares for ferry service. For AMHS routes longer than 300 nautical miles, airline fares are very comparable in price to fares for ferry service.

Table ES-5. Percent Airline Fares Exceed AMHS Fares on Direct Routes by Distance

Dist. Cat.	Cross Gulf		Feeder		Southcentral		SE Inside Passage		Southwest	
	2 Week Advance	Next Day Flight	2 Week Advance	Next Day Flight	2 Week Advance	Next Day Flight	2 Week Advance	Next Day Flight	2 Week Advance	Next Day Flight
0 to 50	-	-	91	91	-	-	274	326	145	145
51 to 100	-	-	-	-	-	-	234	350	267	267
101 to 300	-	-	-	-	79	145	199	260	314	395
301 to 500	-	-	-	-	-1	34	-	-	-	-
501 Plus	-	-	-	-	-	-	24	67	90	117

The AMHS operates two high speed ferries, M/V Chenega and M/V Fairweather. The M/V Fairweather provides services in southeast Alaska. The M/V Chenega provides services to communities in Prince

William Sound in the summer and southeast Alaska in the winter. The AMHS does not adjust fares to reflect the reduced transit times with these vessels on these routes.

Freight rates for a standard 40' X 8' X 8' van are available on 139 of the 181 routes in the AMHS. Some ports cannot take 40-foot vans because the ramp is too steep and rates to those ports have not been provided. The Laconte and the Aurora cannot take 40-foot vans and the fast ferries can only take two 40-foot vans.

For distances greater than 50 nautical miles, average rates for 40-foot vans are higher on Southwest and Southcentral routes than on the Southeast routes. As with other services, average rates per nautical mile for 40-foot vans decrease with distance. Rates for shipments over 500 nautical miles are 51 percent of the rates for shipments of 0 to 50 miles (Table ES-6).

Table ES-6. AMHS 40 Foot Container Fares Per Container Per Nautical Mile

Distance Category	SE Inside Passage	SE Feeder	Cross Gulf	Southcentral	Southwest	Average AMHS System
0 to 50	7.08	3.75			6.08	6.02
51 to 100	3.39	3.50		5.11	3.51	3.93
101 to 300	3.03	1.98		3.27	3.45	3.13
301 to 500	3.19			3.20	3.16	3.34
501 Plus	2.92			3.08	3.16	3.07

Freight rates for 10 and 20 ton shipments by commercial marine carriers serving Alaska ports have been collected for twelve routes from carriers (Table ES-7). These rates are extremely variable and higher than for the AMHS, especially on routes of less than 500 nautical miles.

Table ES-7. Other Freight Services Container Fares Per Container, Per Nautical Mile

Distance Category	10 Tons/Container	20 Tons/Container
51 to 100	10.12	11.25
101 to 300	15.82	19.93
301 TO 500		8.87
501 PLUS	11.96	12.82

While AMHS van/container fares are based on the size of the container plus an unaccompanied fee, the van/container fees for other carriers are primarily based on the weight of the container or a dimensional charge in the event that a container does not meet minimum weight requirements, and minimum revenue requirements for a container. For example a carrier may have a minimum weight of, say, 16 tons for a 40-foot container. With a 16 ton minimum, a container weighing 10 tons would be charged almost as much as the same container loaded with 20 tons. This rate structure occurs because a barge or ship is limited in the number of containers it can carry but is often not weight constrained.

Rate Adjustment Recommendations

Differences in route distances and equipment affect the cost of providing services on specific routes. In this study, differences in equipment and distances are accounted for by classifying routes into five regions and four distance categories. Routes within a region and distance category with fares that are unusually high or low fares are candidates for fare adjustment (see Appendix A).

The responses of different classes of AMHS riders—e.g., tourists, Alaska residents, business—to rate changes are likely to vary. Some riders are likely to greatly reduce/increase AMHS travel if fares are increased/decreased, while others will make only small adjustments. Summer tourist traffic, is likely to fall into the category that makes small adjustments.

The lack of effective, low-cost competitors on most AMHS routes makes it likely that changes in real incomes, inflation, and the emergence of attractions such as better shopping or recreational opportunities on alternative routes will have larger impacts on traffic volumes than small adjustments in fares. The largest segment of customer traffic on most AMHS routes, especially in the Southwest, is the influx of tourists and tourist-related traffic from May through September. Adopting a high summer and low off peak fare structure for all classes of service would likely enable the AMHS to increase revenues, lower fares to off-season travelers, or create a combination of increased revenues and lower off-peak fares.

Changing fares on a specific route can have a large effect on traffic volume on the route if customers have alternative locations for shopping, entertainment, or work. A general increase or decrease in fares on all routes is less likely to greatly alter the flow patterns of passengers of goods between ports. This implies that the adoption of a new seasonal rate structure for the entire AMHS would likely have very similar impacts on all ports and routes. For this reason, it is recommended that minor adjustments be made to bring routes with unusually high or low rates more into line with comparable segments and that a seasonal rate structure be implemented.

1 Introduction

This report contains information and data on fares for all route segments within the Alaska Department of Transportation and Public Facilities, Alaska Marine Highway System (AMHS) service area, rates for alternate modes of transportation within the study area, and rates for similar ferry systems around the world. AMHS fares analyzed are for the Summer 2008 season—May 1, 2008 to September 30, 2008. Fares for other ferries and marine carriers are for the same period. Fares for air transport are for travel in March 2008. Five classes of service are analyzed in this report: Adult, One-way; Vehicles Up to 19 Feet; Two Berth Cabin-Outside-Complete Facilities; Two Berth Cabin-Inside-Complete Facilities; and Vehicles over 21 Feet. The AMHS will use information contained in this study to make future decisions regarding all aspects of its rate structure.

2 Methodology

A total of 181 AMHS routes are categorized into five major geographic service regions and five distance classes with five different service levels. These geographic service regions are:

- **Southeast Inside Passage**—routes providing service between Bellingham or Prince Rupert and Skagway; segments typically take more than one day for a ship to travel and carry a high percentage of tourists in the summer
- **Southeast Feeder**—connect smaller communities in Southeast, Alaska with communities that serve as regional centers; vessels typically depart home port in the morning and return on the same day
- **Cross Gulf**—also known as “inter-tie trips,” sailings utilize a vessel certified to operate in open-waters and connect Southeastern Alaska with Southcentral and the Southwest portions of the state; all sailings include a stop at Yakutat
- **Southcentral**—routes serve communities in Prince William Sound
- **Southwest**—routes include Kodiak Island, the Alaska Peninsula, and the Aleutian Islands

Distance categories have been selected based on differences in fare patterns that are common to all regions and services:

- 0 to 50 miles
- 51 to 100 nautical miles
- 101 to 300 nautical miles
- 301 to 500 nautical miles
- 501 Plus nautical miles

Analysis of fares for five different level of service are provided:

- One-way adult passenger
- Cabin, 2-Berth-Outside-Complete Facilities
- Cabin, 2-Berth-Inside-Complete Facilities
- Vehicles, Up To 19 Feet
- 40 Foot Container/Van

Fares for ferry services with similar distances and services have been collected for:

- BC Ferries
- Brittany Ferries
- DFDS Seaways
- Hurtigruten
- Irish Ferries
- Marine Atlantic
- Moby

- P & O Ferries
- Stena Lines
- TT-Line
- Viking Lines

Airline fares for routes served by the AMHS have been collected for:

- Alaska Air
- Era Aviation
- Homer Air
- LAB Flying Service
- Pen Air
- Smokey Bay Air Taxi
- Wings of Alaska

Freight rates for shipments of containers were obtained from Alaska Marine Lines, Northland Services, and Horizon Lines.

Data for this rate study has been obtained from a variety of sources believed to be accurate and reliable. Passenger and vehicle fare data for the AMHS is available online at <http://www.dot.state.ak.us/amhs/Plan/Fares/index.html>; route distances and van fares have been provided by the AMHS. Fares for other ferry services have been collected from company websites, some of which also provide sailing distances. When a sailing distance is not listed on a carrier websites, the website <http://www.dataloy.com/> was used to estimate a value. Fares for freight service providers were obtained from company websites or from direct quotations by the carrier.

Airline rates have also been collected from company websites and distances between airports are calculated values using great circle distances. In some instances, flights from Washington State and Southwest Alaska are routed to Anchorage and then to a final destination.

Routes with unusually high or low fares are defined as those that are 25 percent above or below the AMHS system wide average for routes of “0 to 50” and “51 to 100” nautical miles and as those fares fifteen percent above or below the AMHS system wide average for routes of “101 to 300,” 301 to 500 and “501 Plus” nautical miles for each service and distance category combination; (Table 1).

Table 1. Critical Values for Determining Unusually High or Low Fares

Distance, Nautical Miles	Normal Fare Variation, Fares Per Nautical Mile				
	Passenger	19 Foot Vehicle	Inside Berth	Outside Berth	40 Foot Van
0 to 50	0.91 to 1.51	1.97 to 3.29	1.87 to 3.12	1.53 to 2.55	4.52 to 7.53
51 to 100	0.51 to 0.85	1.08 to 1.80	0.54 to 0.90	0.59 to 0.98	2.95 to 4.91
101 to 300	0.38 to 0.52	0.95 to 1.29	0.37 to 0.51	0.45 to 0.61	2.66 to 3.60
301 to 500	0.37 to 0.50	0.97 to 1.31	0.34 to 0.46	0.39 to 0.52	2.71 to 3.66
501 Plus	0.34 to 0.46	0.91 to 1.23	0.31 to 0.42	0.35 to 0.48	2.61 to 3.53

3 Other Ferry Systems

Other ferry systems were evaluated to determine which systems offered comparable services to those offered by AMHS. The selected ferry systems are:

- British Columbia (BC) Ferries
- Marine Atlantic
- DFDS Seaways
- Superfast Ferries
- Stena Line
- Hurtigruten

Summary information for each company is provided in the following subsections and a comparison of the fares follows the company information.

3.1 BC Ferries

British Columbia Ferry Services Inc. or BC Ferries is a Canadian provincial crown corporation that provides all major passenger and vehicle ferry services for coastal and island communities in the Canadian province of British Columbia.

BC Ferries has become the largest passenger ferry line in North America and the second largest in the world, boasting a fleet of 36 vessels with a total passenger and crew capacity of over 27,000, serving 49 locations on the British Columbia coast. They have some high volume routes, but many others are lightly used. There is one berthed service between Prince Rupert and Port Hardy.

As BC Ferries provides an essential link from mainland Canada to the various islands on its routes, it is subsidized by Transport Canada. The subsidy for fiscal year 2007 was C\$25.3 million and is adjusted annually to keep pace with the rate of inflation. The company has a 60-year contract with the Province of British Columbia to provide specified levels of service on the routes for specified fees that were C\$92.4 million in 2007. The company also generated \$473.3 million in tariff charges and other revenues in that year. The company had net earnings of C\$48.8 million in its 2007 fiscal year.

The company generates revenues from several sources in addition to passenger and vehicle tariffs. Social program fees are reimbursements from the Province of discounts provided on fares for BC seniors, students traveling to and from school, persons with disabilities, and persons traveling under the medical Travel Assistance Program. These fees have increased as a result of higher program usage and higher fares.

All BC ferries on the major routes have a gift shop and options for food service. Food sales have increased due to higher spending per passenger and the higher number of passengers carried. Gift shop sales have increased with significant improvements in sales of books, clothing, and giftware. Most of the book titles are BC related, and they have introduced new apparel and gift products which have met with success. The company's fees for reservations, parking commissions and surcharges from assured loading ticket sales are also increasing.

3.2 Marine Atlantic

Marine Atlantic, Inc. is a Canadian federal crown corporation that is mandated under the Terms of the Confederation to maintain a year-round ferry service between the mainland and Newfoundland. The Corporation owns and operates four ice-class vessels. Its three passenger vessels include the MV Leif Ericson, with a capacity to carry 500 passengers and 300 passenger vehicles, and Canada's two largest ferries, namely the MV Caribou and the MV Joseph and Clara Smallwood. Each of these larger vessels has a capacity of 1,200 passengers and approximately 350 passenger vehicles with berthed accommodations. The MV Atlantic Freighter is a dedicated commercial freighter that primarily carries drop trailers and restricted commodities, to a capacity of approximately 80 drop trailers.

Marine Atlantic operates on two routes between North Sydney, Nova Scotia, and the ports of Port aux Basques and Argentia, Newfoundland and Labrador. The crossing between North Sydney and Port aux Basques is 5.5 to 7 hours in duration, and the crossing between North Sydney and Argentia is 14 hours. The Argentia – North Sydney route operates tri-weekly from mid-June through September. The North Sydney – Port aux Basques route generally has two daily sailings in each direction during winter months and three daily sailings in each direction in the summer, with four sailings per day on peak weekends and holidays.

The company instituted a 5.2 percent fuel surcharge effective January 17, 2008. In fiscal year 2006, the company had revenues of C\$68.2 million and an operating loss of C\$98.2 million before government funding. With government funding, the company reported net income of C\$4.9 million.

3.3 DFDS Seaways

DFDS Seaways has seven vessels with berthed services and car decks that are used on the following routes:

- Newcastle, England – Amsterdam, Netherlands (daily service each direction)
- Newcastle, England – Bergen, Norway (two sailings per week each direction)
- Newcastle, England – Stavanger, Norway (two sailings per week each direction; this is a port of call on the Newcastle – Bergen voyage)
- Newcastle, England – Haugesund, Norway (two sailings per week each direction; this is a port of call on the Newcastle – Bergen voyage)
- Harwich, England – Esbjerg, Denmark (three sailings per week each direction)
- Copenhagen, Denmark – Oslo, Norway (daily service each direction)

The two vessels operating on the Newcastle to Amsterdam service have capacities of 600 vehicles each, with passenger capacity ranging from 1,620 to 2,053. The Newcastle to Bergen service has a capacity of 1,760 passengers. Vehicle capacity, if any, is not listed on the web site. The Harwich to Esbjerg service employs a vessel with a capacity of 435 vehicles and 600 passengers. The Copenhagen and Oslo service uses two ships with capacities of 450 cars and 2,026 passengers, and 365 cars and 2,100 passengers, respectively.

DFDS Seaways is a passenger service subsidiary of the DFDS Group and profit and earnings by the ferry service is not broken out of the parent company's earnings. However, the 2007 annual report indicates that operating profit (EBITDA) for passenger services was €33 million. The company levies a fuel surcharge of €4.50 per person per voyage.

3.4 Moby Lines

Moby Lines (Moby Lines S.P.A.) is an Italian shipping company that operates ferries and cruise ferries between the Italian mainland and the islands of Elba, Sardinia and Corsica. The company was founded in 1959 under the name Navigazione Arcipelago Maddalenino (NAVARMA for short). In 1982 the company acquired a ferry, renamed it M/S Moby Blu and painted the “blue whale” livery that later came to characterize Moby Lines (the company name remained NAVARMA at this point).

The company is known for using Warner Bros. Looney Tunes characters as the external livery of its new and larger ships. The company has a fleet of 14 vessels, with 6 fast cruise ferries, 2 cruise ferries, 5 ferries, and 1 RoPax ferry for freight and passengers. The fast cruise ferries have passenger capacities that range from 1,900 to 2,200 passengers and from 500 to 1,000 vehicles. The capacity of the two cruise ferries range from 1,200 to 1,600 passengers and 400 to 570 vehicles. The ferries have passenger and vehicle capacities that range from 400 to 1,200 passengers and 100 to 300 vehicles. The RoPax vessel can accommodate 1,000 passengers and 200 vehicles.

Moby Lines is an operating division of the Moby Group which had net income of €7.4 million in 2006, down from €11.7 million in 2005.

3.5 Stena Line

Stena Line is an international transport and travel service company and one of the world’s largest ferry operators. The company provides service in three geographic areas: Scandinavia, the North Sea, and the Irish Sea. The route network consists of 18 ferry routes serviced by a fleet of 34 vessels including fast ferries, traditional passenger and vehicle ferries, RoPax-ferries for freight and passengers, and cargo ships. The company provides ferry services in Sweden, Denmark, Norway, Great Britain, Ireland, Germany, Netherlands, and Poland.

The Stena Line has a variety of vessel types and sizes. Three fast ferries are in the fleet and have passenger capacities ranging from 900 to 1,500 with vehicle capacities of 200 to 360 vehicles. The multi-purpose ferries tend to be very large vessels with capacities of more than 2,000 passengers and over 500 vehicles. The RoPax vessels have widely varying capacities with some capable of handling only 65 passengers, with others exceeding 1,500 passengers and also handling a mix of vehicles and railroad cars.

Stena Line is a wholly-owned subsidiary of the Stena Group, a privately-held Swedish Corporation. No financial information is available, although the company states that it has been profitable every year since 1939.

3.6 Hurtigruten

Hurtigruten serves 34 ports on the West and North coasts of Norway, between Bergen and Kirkenes with 11 vessels that provide twice daily service to each port, with one vessel going northbound and the other traveling southbound. The vessels make an 11 day round trip starting at Bergen, traveling to Kirkenes and then returning.

Hurtigruten was established in 1893 by government contract to improve communications along Norway’s long, jagged coastline. Originally, only one shipping company, Vesteraalens Dampskibsselskab, was willing to take the job of sailing the poorly charted waters; the voyage was especially difficult during the long, dark winters. Hurtigruten, which roughly translates as “the express route,” was a substantial breakthrough for communities along its path. Mail from central Norway to

Hammerfest had taken three weeks in the summer (and up to five months in winter), and now it could be delivered in a mere seven days.

Encouraged by Vesteraalens' early success, several other shipping companies obtained concessions on the route, and the Hurtigruten service expanded to the current round trip between Bergen in the southwest, and Kirkenes in the far northeast.

Beginning in the 1980s, the role of Hurtigruten changed; operating subsidies were gradually phased out and the operators put more emphasis on tourism. New, bigger, and more luxurious ships were introduced, with attention given to Jacuzzis, bars, restaurants and other comforts. However, Hurtigruten still serves important passenger and cargo needs, and operates 365 days a year.

The last two independent shipping companies, Ofotens og Vesteraalens Dampskibsselskab (OVDS) and Troms Fylkes Dampskibsselskap (TFDS), merged on March 1, 2006 and changed their name to Hurtigruten Group (Hurtigruten ASA from April 2007). Besides the traditional coastal voyage, the new company also operates ferries and high-speed regional express ships in Norway, and exotic Greenland, South American and Antarctic cruises.

The vessels in the Hurtigruten fleet range from 400 to 1,000 passenger capacity, and generally can accommodate 25 to 45 vehicles, although there are two vessels in the fleet that do not carry vehicles.

In 2007, the Hurtigruten group experienced a pre-tax loss of \$43.4 million compared to a loss of \$12 million the year before. The loss is to a large degree due to a weak fourth quarter. Passenger development was positive in 2007; however, operating revenues fell substantially in the last quarter. The company is working to enhance the efficiency and aim for a loss of \$9.7 million in 2008 and to deliver a profit the year after.

3.7 Viking Lines

Viking Lines is a Finnish company that operates passenger and cruises ferries, as well as cargo services in the northern Baltic Sea traffic area. The route network consists of six routes serviced by a fleet of eight vessels consisting mostly of traditional passenger ferries. The fleet's passenger capacity ranges from 950 to 2,600, and vehicle capacities of 100 to 450 vehicles.

Viking Lines is an operating division of the Viking Line Group which reported net operating income of €37.84 million in the 2007 fiscal year, up from €34.5 million in 2006. Viking Line transported a total of 5,695,343 passengers and 91,333 cargo units in 2007.

3.8 Irish Ferries

Irish Ferries is an Irish shipping company founded as a joint venture between Irish Shipping, Lion Ferry, and Fearnley & Eger in 1973. The company offers ferry services from Ireland to France and England connecting to six ports. The route network consists of four routes serviced by four vessels.

The Irish Ferries fleet consists of one fast ferry, and three cruise ferries, one of which is the world's largest car ferry. The fast ferry, the Jonathan Swift, operates two return sailings daily between Dublin and Holyhead and can carry 800 passengers and 200 vehicles. The other three cruise ferries' capacity ranges from 1,450 to 2,200 passengers and 580 to 1,350 vehicles.

Irish Ferries is an operating division of the Irish Continental Group, which reported an operating profit of €41.1 million in 2007, a 44 percent increase over 2006.

3.9 TT-Line

TT-Line is a German shipping company that offers direct ferry and cargo service between Germany and Southern Sweden. The company’s vessels are the most modern fleet servicing Sweden with an average vessel age of only seven years.

TT-Line’s fleet of six vessels services two routes and offers up to 20 departures a day between the three ports it services. The company transports an average of nearly 700,000 passengers and over 300,000 cargo units annually. The company has made a bold move in the ferry industry by adopting a modern fleet policy that emphasizes innovative technologies that benefit the environment and its customers. As a result, TT-Lines has received numerous awards for its environmental commitment, and promoting innovation in the transport industry.

TT-Line is a privately owned group of shipping lines and has been in service since 1962. No financial information is available.

3.10 Brittany

Brittany Ferries is a French transport company that operates passenger and cargo services in Great Britain, France, Ireland, and Spain. The route network consists of seven routes serviced by a fleet of ten vessels including fast ferries, classic cruise ferries, and one cargo ship.

Brittany Ferries offers a wide range of vessel types and sizes. There are two fast ferries in the fleet with capacities ranging from 718 to 850 passengers, and 185 to 235 vehicles. There are seven classic cruise ferries with passenger capacities ranging from 1,200 to 2,400 people, and vehicle capacities ranging from 410 to 800 vehicles. The only cargo vessel is also the newest member of the Brittany fleet. This new freighter can handle a wide range of cargo types and up to 230 passengers.

Brittany Ferries has one of the most modern fleets operating on the English Channel and accounts for over 50 percent of the traffic on the Western Channel. The company transports over 2.6 million passengers, and over 780,000 vehicles per year.

Brittany Ferries is a privately held company with French farming co-operatives as the majority shareholders. No financial information is available.

3.11 Comparison of Fares

Table 2 compares the average peak and off peak fares for the other ferry systems by distance and type of service provided. AMHS passenger fares and fares for vehicles up to 19 feet for distances greater than 50 miles are lower than the average for other ferry systems. For cabins, AMHS fares are between the peak and off peak fares of the other operators.

Table 2. Average Fares, AMHS and Comparable Ferry Systems, by Distance and Season

Dist. Cat.	Passenger			Vehicles up to 19 Feet			Inside Cabin			Outside Cabin		
	Peak	Off Peak	AMHS	Peak	Off Peak	AMHS	Peak	Off Peak	AMHS	Peak	Off Peak	AMHS
0 to 50	1.51	0.96	1.21	2.44	1.61	2.63	2.93	1.50	2.50	3.07	1.71	2.04
51 to 100	1.14	0.84	0.68	1.89	1.36	1.44	1.04	0.58	0.72	1.23	0.75	0.78
101 to 300	0.83	0.70	0.45	0.91	0.66	1.12	0.63	0.41	0.44	0.71	0.50	0.53
301 to 500	0.91	0.63	0.44	0.42	0.41	1.14	0.48	0.23	0.40	0.58	0.33	0.45
501 Plus	0.82	0.57	0.40	0.38	0.38	1.07	0.39	0.20	0.37	0.41	0.23	0.41

Table 3 provides more detailed information for each ferry system. BC Ferries provides berthed services on only one route in their system, with several port stops on the route.

Table 3. Average Fares by Ferry Service by Distance and Season

Line	Dist Cat	Passenger		Vehicles Up to 19 Feet		Inside Cabin		Outside Cabin	
		Peak	Off Peak	Peak	Off Peak	Peak	Off Peak	Peak	Off Peak
BC Ferries									
	0 to 50	6.91							
	51 to 100	0.27	0.24	0.95	0.85	0.50	0.17		
	101 to 300	0.66	0.74	1.12	1.12				
Brittany Ferries									
	51 to 100	1.61	0.91	3.71	2.42	0.89	0.62	1.05	0.74
DFDS Seaways									
	101 to 300	1.44		0.41	0.33	0.89	0.53	1.15	0.81
	300 to 500	0.95		0.41	0.37	0.82		1.13	0.96
Hurtigruten									
	0 to 50	1.37	0.96	2.34	1.65	2.93	1.50	3.07	1.71
	51 to 100	1.32	0.93	0.98	0.98	1.17	0.60	1.23	0.68
	101 to 300	1.24	0.80	0.55	0.55	0.53	0.27	0.56	0.31
	301 to 500	0.90	0.63	0.42	0.42	0.44	0.23	0.46	0.26
	500 Plus	0.82	0.57	0.38	0.38	0.39	0.20	0.41	0.23
Irish Ferries									
	51 to 100	0.83	0.83	2.68	1.97	1.09	1.00	1.48	1.39
Marine Atlantic									
	0.31	0.31	0.88	0.88	1.30	0.65	1.30	0.65	0.31
	0.30	0.30	0.62	0.62			0.61	0.61	0.30
Moby									
	0 to 50	1.06							
	51 to 100	0.95	0.58	3.16	1.55	0.75	0.38	0.75	0.38
	101 to 300	0.56	0.31	1.51	0.74	0.61	0.31	0.66	0.32
P & O Ferries									
	51 to 100	2.01	2.01	2.56	2.56				
Stena Lines									
	0 to 50	1.03		3.72	1.35				
	51 to 100	0.87		4.14	1.59	0.51		1.12	0.96
	101 to 300	0.32		1.46	0.77	0.78	0.71	0.96	0.86
TT-Line									
	51 to 100	0.55	0.55	2.22	1.94	0.80	0.52	0.87	0.52
Viking Lines									
	51 to 100	0.20	0.18	1.26	0.61	1.18	0.44	2.14	0.81

4 Competitive Services and Rates

This section provides information on fares charged by competitive services such as tug and barge companies, container ships, and air carriers. Each of these services is described in the following subsections.

4.1 Other Marine Services

This section provides descriptive information on other carriers that provided information for this section and freight rates for transporting a 40-foot standard van on the AMHS system with container rates for other shippers.

4.1.1 Alaska Marine Lines (AML)

AML is an international marine freight service company that provides year-round tug and barge freight service to the communities located in Southern Alaska, and the Yukon Territory of Canada. The Southeast Alaska route network includes 14 communities, all of which receive service with twice a week departures from Seattle. The Central Alaska route network includes seven communities (Anchorage, Whittier, Kenai, Seward, Cordova, Fairbanks, and Valdez), which receive weekly service.

AML is a wholly-owned subsidiary of Lynden Incorporated, a privately-held American corporation. No financial information is available.

AML's fleet is equipped to handle all sizes and types of freight such as bulk liquids, cargo requiring temperature control, dry bulk items such as cement and lime, and flatbed type cargoes. Its customers consist primarily of retail businesses with special services provided to support various industries, such as mining, fishing, and timber. The fleet includes 20 tugs and 17 barges owned by AML or other parties. The barges range in size from 100- by 400-feet in beam and length to 50- by 150-feet in beam and length. Four of the larger barges are equipped to handle rail cars and containers. The tugs range from 4,400 horsepower to 400 horsepower, with their length ranging from 112 feet to 44 feet.

4.1.2 Northland Services

Northland Services provides common carrier tug and barge service with shallow draft capabilities that provides flexibility when navigating in coastal waters and into ports with limited infrastructure. Northland provides year-round service to Southeast and Southcentral Alaska as well as Hawaii, and seasonal service to Western Alaska ports and villages. One of Northland's core competencies is the transportation, loading, and discharge of construction project-related cargoes. Often, the destinations for such cargoes are remote, unimproved sites, lacking port facilities or adequate shore access.

The company provides weekly service to the Southeast Alaska communities of Craig, Thorne Bay, Wrangell, Ketchikan, Juneau, Sitka, Metlakatla, and Petersburg. Weekly service is also provided to the Southcentral Alaska ports of Whittier and Anchorage, with additional sailings in the summer months that provide six to seven barges per month. No financial information is available on the firm.

4.1.3 Horizon Lines

Horizon Lines, Inc. is the nation's leading domestic ocean shipping and integrated logistics company comprised of two primary operating subsidiaries. Horizon Lines, LLC operates a fleet of 21 U.S.-flag

containerships and 5 port terminals linking the continental United States with Alaska, Hawaii, Guam, Micronesia and Puerto Rico. Horizon Logistics, LLC offers customized logistics solutions to shippers from a suite of transportation and distribution management services designed by Aero Logistics, information technology developed by Horizon Services Group and intermodal trucking and warehousing services provided by Sea-Logix. Horizon Lines, Inc. is based in Charlotte, NC, and trades on the New York Stock Exchange under the ticker symbol HRZ.

Horizon Lines began serving Alaska as Sea-Land Service, Inc. in 1965 and introduced container shipping to the Alaska market at that time. The company continues to provide reliable year-round service with D-7 class container vessels. Two sailings per week to Anchorage and Kodiak and weekly, fixed-day service to Dutch Harbor provide service to the Alaska market. The vessels in the Alaska trade each have a capacity of about 1,668 twenty-foot equivalent units.

The company had annual revenues of more than \$1.1 billion in 2006 with net income of about \$72 million. Financial information on their Alaska operations is not provided in their annual report.

4.2 Freight Rates

Freight rates for a standard 40' X 8' X 8' van are available on 139 or the 181 routes in the AMHS. Some ports cannot take 40-foot vans because the ramp is too steep and rates to those have not been provided. The Laconte and the Aurora cannot take 40-foot vans and the fast ferries can only take two 40-foot vans.

Average rates for 40-foot vans tend to be higher on Southwest and Southcentral routes than on the Southeast routes. As with other services, average rates per nautical mile for 40-foot vans decrease with distance. Rates for shipments over 500 nautical miles are 51 percent of the rates for shipments of 0 to 50 miles (Table 4). Vans moving on the AMHS are primarily being transported for commercial transportation companies rather than the ultimate customer.

Table 4. AMHS 40 Foot Container Fares Per Container, Per Nautical Mile

Distance Category	SE Inside Passage	SE Feeder	Cross Gulf	Southcentral	Southwest	Average AMHS System
0 to 50	7.08	3.75			6.08	6.02
51 to 100	3.39	3.50		5.11	3.51	3.93
101 to 300	3.03	1.98		3.27	3.45	3.13
301 to 500	3.19			3.20	3.16	3.34
501 Plus	2.92			3.08	3.16	3.07

Freight rates for 10 ton and 20 ton shipments by commercial marine carriers serving Alaska ports have been collected for 12 routes from carriers (Table 5). These rates are extremely variable and higher than for the AMHS, especially on routes of less than 500 nautical miles. The lower van rates offered by AMHS, as compared to other freight services, would suggest that AMHS should be able to fill all of its van spaces but the van space utilization is actually well below capacity. Assessing the reason for the low utilization is not within the scope of work for this report, but among the possible factors could be that space is not guaranteed unless it is booked well in advance, and there is not sufficient AMHS deck space for large volume shippers.

Table 5. Other Freight Services Container Fares Per Container, Per Nautical Mile

Distance Category	10 Tons	20 Tons
51 to 100	10.12	11.25
101 to 300	15.82	19.93
301 to 500		8.87
501 Plus	11.96	12.82

While AMHS van/container fares are based on the size of the container plus an accompanied fee, the van/container fees for other carriers are primarily based on the weight of the container or a dimensional charge in the event that a container does not meet minimum weight requirements, and minimum revenue requirements for the container. Thus 10 ton shipments may be charged almost as much as a 20 ton shipment because a barge or ship is limited in the number of containers it can carry but is often not weight constrained.

4.3 Air Service

Communities served by the AMHS are also served by a variety of commercial air carriers. Passenger rates for air carriers serving ports on the AMHS charge fares that are much higher per nautical mile—between two and a half and almost four times higher on routes shorter than 500 miles, when routes are measured in flying distances (Table 6).

Table 6. Average One-way Airline Fares per Nautical Mile

Distance Category	2 Week Advance Purchase	Same day flight Purchase	AMHS Fares Same Routes
0 to 50	3.36	3.43	1.20
51 to 100	2.29	2.57	0.48
101 to 300	1.19	1.56	0.46
301 to 500	0.37	0.73	
501 Plus	0.40	0.48	0.39

Note: Distances for flights from Washington State and British Columbia to southwest and Southcentral Alaska Communities are for travel to Anchorage and then direct flights to final destination; all other distances are for flights between airports.

Because sailing distances are usually longer than flying distances, comparing total ticket costs provides a better measure of the relative cost of ferry and air services. A total of 31 routes have direct air service between AMHS ports. Airline tickets purchased at least two weeks before travel are for AMHS routes up to 300 nautical miles cost from 79 to 314 percent more than fares for ferry service. For AMHS routes longer than 300 nautical miles, airline fares are very comparable in price to fares for ferry service. Table 7 shows the airline fares as a percent of AMHS fares on routes in each region.

As shown in Table 7, fares on flights of “0 to 50” nautical miles, sailing distance, purchased at least two weeks in advance are on average 274 percent or 2.74 times the one way passenger fare for a ferry traveling the same route on the Southeast Inside Passage.

Table 7. Airline Fares as a percent of AMHS Fares

Dist. Cat.	Southeast Feeder		South-Central		Southeast Inside Passage		Southwest	
	2 Week Advance	Next Day Flight	2 Week Advance	Next Day Flight	2 Week Advance	Next Day Flight	2 Week Advance	Next Day Flight
0 to 50	191	191			274	300	245	245
51 to 100					270	309	367	367
101 to 300			179	245	299	360	414	495
301 to 500			099	134				
501 Plus					124	167	190	217

Note: Routes with direct air competition – early tickets are purchased 2 weeks in advance, distances are for AMHS routes to enable direct comparisons.

5 Current Structure AMHS

The AMHS transports people, goods, and vehicles to and from 32 ports along 3,500 track miles from Bellingham, Washington, through Southeast Alaska, across the Gulf of Alaska to Prince William Sound and Southcentral Alaska, to Kodiak Island, the Alaskan Peninsula and out the Aleutian Islands to Unalaska. The system includes 16 state-owned terminals and their staff. A total of 11 roll-on/roll-off passenger ships operate during the summer season and as few as 4 ships operate during the fall, winter, and spring seasons. AMHS vessels provide passage for an average of over 300,000 passengers and over 90,000 vehicles per year aboard.

The 32 AMHS ports with of 181 routes are categorized into five major geographic service regions:

- **Southeast Inside Passage**—routes providing service between Bellingham or Prince Rupert and Skagway; segments typically take more than one day for a ship to travel and carry a high percentage of tourists in the summer
- **Southeast Feeder**—connect smaller communities in Southeast, Alaska with communities that serve as regional centers; vessels typically depart home port in the morning and return on the same day
- **Cross Gulf**—also known as “inter-tie trips,” sailings utilize a vessel certified to operate in open-waters and connect Southeastern Alaska with Southcentral and the Southwest portions of the state; all sailings include a stop at Yakutat
- **Southcentral**—routes serve communities in Prince William Sound
- **Southwest**—routes include Kodiak Island, the Alaska Peninsula, and the Aleutian Islands

Currently, there are eleven vessels in the AMHS fleet. The newest are the Fast Vehicle Ferries Fairweather and Chenega. They are the first vessels of this type to be built in the United States. A description of the vessels, and the areas served by each of the AMHS vessels are noted below.

5.1 Routes and Vessels

5.1.1 Bellingham or Prince Rupert to Skagway Routes

M/V Columbia (COL) largest vessel of the fleet, launched in 1974, 418 feet long, capacity for 499 passengers and 134 vehicles (20' lengths), 103 total cabins including 44 four-berth units and 56 two-berth units; facilities include both a fine dining room and a cafeteria, gift shop, cocktail lounge, solarium, and forward observation lounge.

M/V Matanuska (MAT) built 1963, lengthened and renovated in 1968, 408 feet long, capacity for 88 vehicles (20' lengths), 499 passengers, 4 four-berth, 21 three-berth, and 80 two-berth cabins, services include a cafeteria, gift shop, cocktail lounge, solarium, and forward observation lounge.

M/V Malaspina (MAL) built in 1963, lengthened and renovated in 1972, 408 feet long, 499 passengers, 46 four-berth and 26 two-berth cabins, capacity for 88 vehicles (20' lengths), services include a cafeteria, gift shop, cocktail lounge, solarium, and forward observation lounge.

M/V Taku (TAK) began service in 1963, 352 feet long, capacity for 69 vehicles (20' lengths), 370 passengers, 9 four-berth, 33 two-berth cabins, services include a cafeteria, gift shop, cocktail lounge, solarium, and forward observation lounge.

5.1.2 North Panhandle & Lynn Cannel Routes

M/V LeConte (LEC) joined the fleet in 1974, 235 feet long, capacity for 300 passengers and 34 vehicles (20' lengths), used for shorter runs, does not have staterooms, but food service and a solarium are provided.

5.1.3 Sitka and Petersburg Routes

M/V Fairweather (FWX) one of the new Fast Vehicle Ferries, began service in summer, 2004; normally operates in Southeast Alaska.

5.1.4 Metlakatla and Ketchikan

M/V Lituya (LIT) launched in 2004, provides daily ferry shuttle service between Metlakatla and Ketchikan; 180-foot, accommodates 18 cars and 149 passengers.

5.1.5 Prince William Sound Routes

M/V Aurora (AUR) began service in 1977; 235 feet long, and can transport 300 passengers and 34 vehicles (20' lengths); used for short runs, staterooms are not available, food service and a solarium are provided.

M/V Chenega (CHE) one of the new Fast Vehicle Ferries, began service in summer of 2005; operates in Southeast Alaska during the winter months and in Prince William Sound during the summer.

5.1.6 Southwest & Cross Gulf Routes

M/V Kennicott (KEN) began service in the summer of 1998, 382 feet long, 85 feet wide, with nine decks, capacity for 499 passengers, space for 80 standard automobiles, provides 109 berthing accommodations, 48 four-berth cabins and 56 two-berth cabins; facilities include observation lounges and enclosed, heated solarium.

5.1.7 Southwest Routes

M/V Tustumena (TUS) built 1964, 296 feet long, capacity for 36 vehicles (20' lengths), 174 passengers, 8 four-berth, 17 two-berth cabins, services include a cafeteria, cocktail lounge, solarium, and forward observation lounge.

5.2 AMHS Financial Background

In 2006, AMHS found itself in the position of escalating service cost and declining ridership. On the cost side, personnel costs and fuel prices had drastically increased AMHS service costs. To grow ridership and revenues, starting in November of 2005 AMHS instituted targeted pricing discounts. In 2007, AMHS reported these programs resulted in a seven percent increase in collected revenues and traffic increases of nine percent as compared to the previous year. In fiscal year 2007 AMHS management planned to offer targeted price discounts for price-sensitive runs based on the assumption that tariff pricing is a primary concern of the Alaskan traveler. In 2007, revenue per rider mile on the AMHS covered about 34.5 percent of the costs, down from 38.2 percent in 2006 and 46.3 percent in 2005.

AMHS is in the process of upgrading the fleet with the addition of economical passenger/vehicle ferries. For example, a new Haines/Skagway shuttle vessel project has been started. This vessel will be very economical, and should allow a more efficient mainline scheduling in North Lynn Canal to be developed. In turn, this increased efficiency is intended to reduce the cost per mile to operate.

Table 8 presents information on the average, maximum, and minimum fares by distance for each geographic area and system-wide. Average rates decrease for each service and region as distance increases and rates on Southwest and Southcentral routes tend to be higher than on Southeast routes for all services and distances.

Table 8. AMHS, Average, Minimum & Maximum Fares by Region and Service

Distance NM	Fare/NM	Cross Gulf	Southeast Feeder	Southcentral	Southeast Inside Passage	Southwest	System-wide
Passengers							
0 to 50	Average	--	0.74	1.64	1.59	1.16	1.21
	Maximum	--	0.89	2.27	2.38	1.94	2.38
	Minimum	--	0.63	1.00	0.80	0.69	0.63
51 to 100	Average	--	0.58	0.98	0.53	0.58	0.68
	Maximum	--	0.78	1.33	0.64	0.65	1.33
	Minimum	--	0.52	0.68	0.36	0.51	0.36
101 to 300	Average	--	0.32	0.50	0.43	0.48	0.45
	Maximum	--	0.32	0.82	0.58	0.70	0.82
	Minimum	--	0.32	0.34	0.27	0.37	0.27
301 to 500	Average	0.54	--	0.44	0.44	0.41	0.44
	Maximum	0.54	--	0.48	0.49	0.45	0.54
	Minimum	0.54	--	0.39	0.36	0.37	0.36
501 Plus	Average	0.43	--	0.40	0.39	0.40	0.40
	Maximum	0.44	--	0.40	0.42	0.42	0.44
	Minimum	0.42	--	0.39	0.37	0.37	0.37
Region average		0.45	0.60	0.67	0.46	0.49	0.51
Vehicle to 19 feet							
0 to 50	Average	--	1.42	3.60	2.67	2.37	2.63
	Maximum	--	1.42	5.00	3.77	3.18	5.00
	Minimum	--	1.42	2.20	1.56	1.42	1.42
51 to 100	Average	--	1.30	1.79	1.25	1.28	1.44
	Maximum	--	1.73	2.84	1.49	1.51	2.84
	Minimum	--	1.11	1.23	1.02	1.17	1.02
101 to 300	Average	--	0.76	1.23	1.07	1.21	1.12
	Maximum	--	0.76	1.74	1.46	1.69	1.74
	Minimum	--	0.76	0.85	0.60	0.99	0.60
301 to 500	Average	1.49	--	1.17	1.11	1.09	1.14
	Maximum	1.49	--	1.26	1.28	1.17	1.49
	Minimum	1.49	--	1.01	0.88	1.00	0.88

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Distance NM	Fare/NM	Cross Gulf	Southeast Feeder	Southcentral	Southeast Inside Passage	Southwest	System-wide
501 Plus	Average	1.16	--	1.06	1.03	1.09	1.07
	Maximum	1.18	--	1.07	1.15	1.13	1.18
	Minimum	1.14	--	1.04	0.95	0.98	0.95
Region average		1.24	1.25	1.50	1.13	1.23	1.23
Inside berth							
0 to 50	Average	--	--	--	2.50	--	2.50
	Maximum	--	--	--	3.85	--	3.85
	Minimum	--	--	--	1.15	--	1.15
51 to 100	Average	--	0.75	--	0.72	--	0.72
	Maximum	--	0.75	--	0.87	--	0.87
	Minimum	--	0.75	--	0.62	--	0.62
101 to 300	Average	--	0.45	--	0.44	--	0.44
	Maximum	--	0.45	--	0.58	--	0.58
	Minimum	--	0.45	--	0.33	--	0.33
301 to 500	Average	--	--	--	0.40	--	0.40
	Maximum	--	--	--	0.48	--	0.48
	Minimum	--	--	--	0.34	--	0.34
501 Plus	Average	--	--	--	0.37	--	0.37
	Maximum	--	--	--	0.38	--	0.38
	Minimum	--	--	--	0.35	--	0.35
Region average			0.60		0.55		0.56
Outside berth							
0 to 50	Average	--	--	--	2.68	1.72	2.04
	Maximum	--	--	--	4.08	3.06	4.08
	Minimum	--	--	--	1.29	0.67	0.67
51 to 100	Average	--	0.85	--	0.78	0.76	0.78
	Maximum	--	0.85	--	0.96	0.96	0.96
	Minimum	--	0.85	--	0.65	0.57	0.57
101 to 300	Average	--	0.50	--	0.48	0.58	0.53
	Maximum	--	0.50	--	0.63	0.82	0.82
	Minimum	--	0.50	--	0.37	0.43	0.37
301 to 500	Average	--	--	--	0.45	0.46	0.45
	Maximum	--	--	--	0.55	0.54	0.55
	Minimum	--	--	--	0.39	0.40	0.39
501 Plus	Average	--	--	--	0.42	0.41	0.41
	Maximum	--	--	--	0.44	0.45	0.45
	Minimum	--	--	--	0.40	0.35	0.35
Region average			0.67		0.61	0.59	0.60
40-foot Van							
0 to 50	Average	--	3.75	--	7.08	6.08	6.02
	Maximum	--	3.75	--	10.15	8.00	10.15
	Minimum	--	3.75	--	4.00	3.83	3.75

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Distance NM	Fare/NM	Cross Gulf	Southeast Feeder	Southcentral	Southeast Inside Passage	Southwest	System-wide
51 to 100	Average	--	3.50	5.11	3.39	3.51	3.93
	Maximum	--	4.73	7.70	4.12	4.14	7.70
	Minimum	--	2.98	3.42	2.74	3.17	2.74
101 to 300	Average	--	1.98	3.27	3.03	3.45	3.13
	Maximum	--	1.98	3.78	4.14	4.82	4.82
	Minimum	--	1.98	2.39	1.62	2.85	1.62
301 to 500	Average	--	--	3.20	3.19	3.16	3.34
	Maximum	--	--	3.66	3.63	3.42	6.59
	Minimum	--	--	2.91	2.53	2.89	2.53
501 Plus	Average	--	--	3.08	2.92	3.16	3.07
	Maximum	--	--	3.13	3.03	3.30	3.30
	Minimum	--	--	3.03	2.76	2.87	2.76
Region average			3.34	4.04	3.18	3.47	3.39

6 Findings

A total of 54 of the 181 AMHS routes analyzed have passenger fares that are 25 percent above or below the average for routes of “0 to 50’ or “51 to 100” nautical miles or that are 15 percent above or below the average for routes of “101 to 300’, ‘301-500’ or “501 Plus” nautical miles and are classified as having unusually high or low fares. For vehicles up to 19 feet, inside cabins, outside cabins, and 40-foot containers, 39, 12, 29, and 44 routes respectively had fares that are unusually low or high.

Sitka has the highest number of routes, 11 of 13, where passenger fares are unusually low. Additionally, 10 of 13 Sitka routes have fares for vehicles up to 19 feet that are unusually low; 6 of 13 routes have unusually low fares for outside cabins; and 4 of 13 routes have unusually low rates for inside cabins. Tenakee has the second highest number of routes with unusually low passenger fares, 6 of 13.

Both passenger fares and fares for vehicles up to 19 feet are unusually high on 4 of the 7 routes from Chenega Bay. Passenger fares from Valdez are unusually high on 3 of 8 routes, and fares for vehicles up to 19 feet are unusually high on 4 of 8 routes. Additionally, 3 of the 7 Chenega Bay routes and 3 of the 8 Valdez routes have fares for 40 foot containers/vans that are unusually high. Table 9 shows the number of routes with unusually high or low fares for each type of service for each port.

Table 9. Number of Routes by Port with Abnormally* High or Low Fares

Port	Number of Routes	Passengers		Vehicles less than 19 feet		Inside Berths		Outside Berths		40 Foot Van	
		Above	Below	Above	Below	Above	Below	Above	Below	Above	Below
Akutan	10	0	1	0	0	0	0	2	1	0	0
Angoon	13	0	3	0	2	0	0	0	0	0	2
Bellingham	12	0	0	0	0	0	0	0	0	0	0
Cheneg Bay	7	4	0	4	0	0	0	0	0	3	0
Chignik	10	0	1	0	0	0	0	1	1	0	0
Cold Bay	10	1	1	0	0	0	0	1	1	0	0
Cordova	8	2	0	1	0	0	0	0	0	3	0
Dutch Harbor	10	1	2	1	0	0	0	1	1	1	0
False Pass	10	1	0	1	0	0	0	2	1	1	0
Haines	13	1	2	1	1	2	0	2	1	2	1
Homer	15	3	0	2	0	0	0	3	0	4	0
Hoonah	13	1	5	0	3	0	0	0	0	1	3
Juneau	15	3	5	3	3	2	0	2	2	3	3
Kake	13	2	1	2	2	2	1	1	1	3	2
Ketchikan	15	1	3	0	2	1	1	1	2	0	2
King Cove	10	0	0	0	0	0	0	1	0	0	0
Kodiak	15	2	2	3	2	0	0	2	1	4	2
Pelican	13	1	3	0	3	0	0	0	0	1	3
Petersburg	13	2	3	1	3	2	2	2	2	2	3
Port Lions	14	2	3	4	2	0	0	2	2	4	2
Prince Rupert	14	0	1	0	1	1	1	1	1	0	1
Sand Point	10	1	0	0	0	0	0	4	0	0	0
Seldovia	15	3	0	1	0	0	0	3	0	3	0
Sitka	13	0	11	0	10	0	4	0	6	0	10
Skagway	13	4	1	2	1	1	1	1	1	6	1
Tatitlek	8	3	0	4	0	0	0	0	0	0	0
Tenakee	13	0	6	0	0	0	0	0	0	0	0
Valdez	8	3	0	4	0	0	0	0	0	4	0
Whittier	12	5	2	2	2	0	0	0	0	1	2
Wrangell	13	1	3	1	3	1	2	0	2	2	3
Yakutat	4	1	1	1	0	0	0	0	0	0	0

*For routes up to 100 nautical miles, fares that are more than 25 percent above or below the average for the distance categories "1 to 50" and "51 to 100" nautical miles; for routes over 100 miles, fares that are more than 15 percent above or below the averages for the distance categories "101 to 300," "301 to 500," and "501 Plus" nautical miles.

7 Recommendations for rate changes

Firms, including subsidized firms, may elect or be required to charge prices that do not reflect the costs of providing a good or service. In cases where these firms are receiving a public subsidy, it is important to determine why pricing systems do not reflect the costs of providing a good or service and to indicate why the loss of economic efficiency is justified. The analysis in this report assumes economic efficiency is a goal of the AMHS rate structure, that the fare structure should be representative of the costs of providing service on a route, and that unusually high or low rates that do not reflect differences in the cost of providing a service are to be explicitly justified using other considerations.

Variations in costs on AMHS routes might occur because of differences in vessel operating costs and route lengths. AMHS vessels are allocated to service regions so as to equalize operating costs per nautical mile for routes of the same distance. Thus, higher or lower average regional fares would not be justified by the economic efficiency criteria of differences in costs of operation.

Short routes increase the proportion of port expenses in a vessel's annual operating costs and reduce the number of passenger-miles a vessel can produce. These two factors—port expenses and reduced passenger-miles—increase cost per passenger mile. Thus, higher average fares, when measured on a price per mile basis, on shorter routes would be partially justified by the economic efficiency criteria.

Based on the analysis conducted for this report, the following recommendations are made:

For all services, increase abnormally low fares to levels that are no more than 25 percent below average fares for routes of 0 to 100 nautical miles and no more than 15 percent below the average fares for routes over 100 nautical miles.

If significant cost differences do not justify current abnormally high fares, reduce these fares so that they are no more than 25 percent above average fares for routes of 0 to 100 nautical miles and no more than 15 percent above average fares for routes over 100 nautical miles.

Retain current fare levels during the off-peak months and implement a peak season fare that is 30 to 40 percent higher than the off-peak fare for passengers, and 40 to 50 percent higher than the off-peak fares for berth services. Current fares for vehicles up to 19 feet are comparable to other ferry systems' peak season fares and it is recommended that initially these fares not be increased during the peak season.

Economists generally assume that higher prices lead to lower levels of consumption and that lower prices lead to higher levels of consumption. However, without additional information, economists cannot predict whether total revenues will be lower or higher. If the relative increase in price is larger than the decrease in quantities purchased, then total revenues will increase. Conversely, if an increase in price results in relatively larger decrease in quantities purchased, then total revenues will decline. The relationship between the changes in price and quantity is known as the price elasticity of demand. Price elasticity of demand determines whether a higher price generates lower or higher total revenues.¹ If demand is inelastic with respect to price, then higher prices result in higher total revenues. If demand is elastic with respect to price, then lower prices result in higher total revenues.

¹ Price elasticity is a measure of the relative response of consumers to changes in price. Price elasticity is approximately equal to the slope of the demand curve over marginal changes in price. It is generally assumed that higher prices induce consumers to purchase lower quantities, and that lower prices lead to greater purchase, if all other things are held constant. Thus demand curves generally slope downward from the left, and price elasticity is a negative number. If demand is elastic, then the price elasticity is less than -1.0 (a number that is more negative than -1.0 , for example -2.0). Increasing the price with elastic demand will generate lower

A review of economics and transportation literature indicates that demand for ferry services is generally inelastic. Erickson (1993) estimated the price elasticity on AMHS ferries to be -0.69 for vehicles and -0.56 for passengers. British Columbia Ferries (BC Ferries) studied price elasticity on its systems and estimated vehicle elasticities ranging from -0.58 to -0.78 (IBI Group, 1998). A price elasticity value of -0.69 , the estimate developed specifically from AMHS data and the midpoint of the elasticities that BC Ferries estimated, suggests that higher prices will result in higher total revenues.

A price elasticity of -0.69 indicates that a seasonal price increase of 40 percent would reduce passenger traffic by 28 percent while increasing seasonal revenues by about 19 percent. Similarly a seasonal price increase of 50 percent would reduce passenger seasonal traffic by approximately 35 percent while increasing seasonal revenues by about 22 percent.

The elasticity work is several years old and is based on a different level of service. A change in price of 50 percent in either direction may move the fare structure into a more or less inelastic portion of the curve, unless one assumes constant price elasticity of demand. While the best estimate from this older work is that revenues would increase 22 percent, it is highly probable the increase in revenues would be less than 22 percent and there is a small probability revenues would decrease. For these reasons we would suggest that the seasonal rate increases be implemented over two or more years and the affect of these changes be measured.

total revenues because the decrease in quantity purchased will more than offset the increased price. If demand is inelastic it is between -1.0 and 0 . With inelastic demand total revenues increase as price increases. If demand has unitary elasticity, then elasticity equals -1.0 . With unitary elasticity a change in price will generate a change in quantity such that total revenues are unchanged. The mathematical formula for instantaneous price elasticity is $(e) = \Delta Q / \Delta P$ where ΔP is the marginal change in price, and ΔQ is the marginal change in quantity. Typically demand curves are assumed to have to have price ranges that are elastic and other price ranges that are inelastic. This means that for some range of prices, increasing prices will increase revenues but at some point as price increases, revenues will begin to decline.

8 Appendices

A. AMHS Passenger/Vehicle/Cabin Rate Tables

- Sorted by routes
- Sorted by route length
- Sorted by cost categories and route length

B. Other Ferry Passenger/Vehicle/Cabin Rate Table

C. Airline Rate Table

D. Commercial Van Rate Table

A. AMHS Passenger/Vehicle/Cabin Rate Tables

Table 10. AMHS Passenger, Vehicle, and Cabin Fares Per Nautical Mile, Sorted by Region and Route

Route	One-way Distance, NM	Passenger Fare Adult, One-way		Vehicle Rate - Up to 19 Feet Does Not Include Driver		One-Way, Cabin Fare - 2 berth							
						Inside, Full Facilities		Outside, Full Facilities		Inside, No Facilities		Outside, No Facilities	
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
Cross Gulf													
Whittier-Juneau	528	221	0.42	-	-	-	-	604	1.14	189	0.36	212	0.40
Whittier-Ketchikan	751	320	0.43	-	-	-	-	870	1.16	256	0.34	284	0.38
Whittier-Yakutat	302	163	0.54	-	-	-	-	449	1.49	139	0.46	156	0.52
Whittier-Prince Rupert	854	372	0.44	-	-	-	-	1,005	1.18	290	0.34	322	0.38
Southcentral													
Cordova-Chenega Bay	97	89	0.92	-	-	-	-	190	1.96	52	0.54	59	0.61
Cordova-Homer	514	202	0.39	-	-	-	-	536	1.04	52	0.1	238	0.46
Cordova-Kodiak	298	147	0.49	-	-	-	-	376	1.26	52	0.17	158	0.53
Cordova-Port Lions	296	147	0.50	-	-	-	-	376	1.27	52	0.18	158	0.53
Cordova-Seldovia	516	206	0.40	-	-	-	-	553	1.07	52	0.1	244	0.47
Cordova-Tatitlek	50	50	1.00	-	-	-	-	110	2.20	-	-	-	-
Cordova-Valdez	74	50	0.68	-	-	-	-	110	1.49	52	0.7	59	0.8
Cordova-Whittier	97	89	0.92	-	-	-	-	123	1.27	52	0.54	143	1.47
Chenega Bay-Homer	337	159	0.47	-	-	-	-	408	1.21	136	0.4	158	0.47
Chenega Bay-Kodiak	201	91	0.45	-	-	-	-	225	1.12	-	-	99	0.49
Chenega Bay-Seldovia	354	163	0.46	-	-	-	-	423	1.19	-	-	185	0.52

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Route	One-way Distance, NM	Passenger Fare Adult, One-way		Vehicle Rate - Up to 19 Feet Does Not Include Driver		One-Way, Cabin Fare - 2 berth							
						Inside, Full Facilities		Outside, Full Facilities		Inside, No Facilities		Outside, No Facilities	
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
Chenega Bay-Whittier	67	89	1.33	-	-	-	-	190	2.84	75	1.12	84	1.25
Tatitlek-Chenega Bay	109	89	0.82	-	-	-	-	190	1.74	104	0.95	202	1.85
Tatitlek-Homer	446	202	0.45	-	-	-	-	536	1.20	104	0.23	297	0.67
Tatitlek-Kodiak	288	147	0.51	-	-	-	-	376	1.31	104	0.36	217	0.75
Tatitlek-Port Lions	286	147	0.51	-	-	-	-	376	1.31	104	0.36	217	0.76
Tatitlek-Seldovia	463	206	0.44	-	-	-	-	553	1.19	104	0.22	303	0.65
Tatitlek-Valdez	22	50	2.27	-	-	-	-	110	5.00	-	-	-	-
Tatitlek-Whittier	100	89	0.89	-	-	-	-	123	1.23	104	1.04	118	1.18
Valdez-Chenega Bay	87	89	1.02	-	-	-	-	190	2.18	104	1.2	202	2.32
Valdez-Homer	236	202	0.86	-	-	-	-	536	2.27	104	0.25	297	0.7
Valdez-Kodiak	288	147	0.51	-	-	-	-	376	1.31	104	0.36	217	0.75
Valdez-Port Lions	286	147	0.51	-	-	-	-	376	1.31	104	0.36	217	0.76
Valdez-Seldovia	441	206	0.47	-	-	-	-	553	1.25	104	0.24	303	0.69
Valdez-Whittier	78	89	1.14	-	-	-	-	123	1.58	104	1.33	118	1.51
Whittier-Homer	402	159	0.40	-	-	-	-	408	1.01	136	0.34	158	0.39
Whittier-Kodiak	266	91	0.34	-	-	-	-	225	0.85	-	-	99	0.37
Whittier-Port Lions	264	91	0.34	-	-	-	-	225	0.85	-	-	99	0.38
Whittier-Seldovia	419	163	0.39	-	-	-	-	423	1.01	-	-	185	0.44
Southeast													
Angoon-Bellingham	807	320	0.40	-	-	-	-	833	1.03	308	0.38	352	0.44
Angoon-Kake	60	47	0.78	-	-	-	-	104	1.73	63	1.05	70	1.17
Angoon-Ketchikan	212	99	0.47	-	-	-	-	259	1.22	92	0.43	104	0.49
Angoon-Pelican	169	60	0.36	-	-	-	-	136	0.80	-	-	-	-
Angoon-Petersburg	100	64	0.64	-	-	-	-	149	1.49	69	0.69	76	0.76

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Route	One-way Distance, NM	Passenger Fare Adult, One-way		Vehicle Rate - Up to 19 Feet Does Not Include Driver		One-Way, Cabin Fare - 2 berth							
						Inside, Full Facilities		Outside, Full Facilities		Inside, No Facilities		Outside, No Facilities	
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
Angoon-Sitka	67	35	0.52	-	-	-	-	75	1.12	-	-	-	-
Angoon-Wrangell	166	80	0.48	-	-	-	-	195	1.17	79	0.48	88	0.53
Angoon-Prince Rupert	303	149	0.49	-	-	-	-	364	1.20	124	0.41	144	0.48
Hoonah-Angoon	63	33	0.52	-	-	-	-	70	1.11	-	-	-	-
Hoonah-Bellingham	870	326	0.37	-	-	-	-	877	1.01	358	0.41	407	0.47
Hoonah-Kake	116	60	0.52	-	-	-	-	138	1.19	58	0.5	65	0.56
Hoonah-Ketchikan	293	107	0.37	-	-	-	-	280	0.96	92	0.31	104	0.35
Hoonah-Pelican	64	35	0.55	-	-	-	-	84	1.31	-	-	-	-
Hoonah-Petersburg	181	66	0.36	-	-	-	-	167	0.92	69	0.38	76	0.42
Hoonah-Sitka	118	37	0.31	-	-	-	-	87	0.74	50	0.42	55	0.47
Hoonah-Tenakee	49	31	0.63	-	-	-	-	-	-	-	-	-	-
Hoonah-Wrangell	222	87	0.39	-	-	-	-	214	0.96	79	0.36	88	0.4
Hoonah-Prince Rupert	384	157	0.41	-	-	-	-	400	1.04	124	0.32	144	0.38
Haines-Angoon	146	66	0.45	-	-	-	-	152	1.04	59	0.4	65	0.45
Haines-Bellingham	898	353	0.39	337	0.38	393	0.44	949	1.06	337	0.38	393	0.44
Haines-Hoonah	116	60	0.52	-	-	-	-	136	1.17	109	0.94	120	1.03
Haines-Juneau	68	37	0.54	59	0.87	65	0.96	86	1.26	59	0.87	65	0.96
Haines-Kake	182	89	0.49	-	-	-	-	233	1.28	122	0.67	135	0.74
Haines-Ketchikan	303	134	0.44	124	0.41	135	0.45	350	1.16	124	0.41	135	0.45
Haines-Pelican	159	76	0.48	-	-	-	-	191	1.20	-	-	-	-
Haines-Petersburg	191	89	0.47	93	0.49	100	0.52	233	1.22	93	0.49	100	0.52
Haines-Sitka	200	66	0.33	79	0.40	86	0.43	159	0.80	79	0.40	86	0.43
Haines-Tenakee	165	60	0.36	-	-	-	-	-	-	109	0.66	120	0.73
Haines-Wrangell	232	107	0.46	100	0.43	111	0.48	280	1.21	100	0.43	111	0.48

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	One-way Distance, NM	Passenger Fare Adult, One-way		Vehicle Rate - Up to 19 Feet Does Not Include Driver		One-Way, Cabin Fare - 2 berth							
						Inside, Full Facilities		Outside, Full Facilities		Inside, No Facilities		Outside, No Facilities	
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
Haines-Prince Rupert	326	160	0.49	156	0.48	178	0.55	416	1.28	156	0.48	178	0.55
Juneau-Angoon	78	37	0.47	-	-	-	-	84	1.08	-	-	-	-
Juneau-Bellingham	830	326	0.39	308	0.37	352	0.42	877	1.06	308	0.37	352	0.42
Juneau-Hoonah	48	33	0.69	-	-	-	-	68	1.42	-	-	-	-
Juneau-Kake	114	66	0.58	63	0.55	70	0.61	167	1.46	63	0.55	70	0.61
Juneau-Ketchikan	235	107	0.46	92	0.39	104	0.44	280	1.19	92	0.39	104	0.44
Juneau-Pelican	91	50	0.55	-	-	-	-	121	1.33	-	-	-	-
Juneau-Petersburg	123	66	0.54	69	0.56	76	0.62	167	1.36	69	0.56	76	0.62
Juneau-Sitka	132	45	0.34	53	0.40	58	0.44	92	0.70	53	0.40	58	0.44
Juneau-Tenakee	97	35	0.36	-	-	-	-	-	-	-	-	-	-
Juneau-Wrangell	164	87	0.53	79	0.48	88	0.54	214	1.30	79	0.48	88	0.54
Juneau-Prince Rupert	326	141	0.43	124	0.38	144	0.44	360	1.10	124	0.38	144	0.44
Kake-Bellingham	772	293	0.38	-	-	-	-	759	0.98	350	0.45	389	0.5
Kake-Ketchikan	177	74	0.42	74	0.42	84	0.47	185	1.05	74	0.42	84	0.47
Kake-Petersburg	65	35	0.54	49	0.75	55	0.85	79	1.22	49	0.75	55	0.85
Kake-Wrangell	106	54	0.51	57	0.54	63	0.59	121	1.14	57	0.54	63	0.59
Kake-Prince Rupert	268	108	0.40	98	0.37	110	0.41	262	0.98	98	0.37	110	0.41
Ketchikan-Bellingham	595	239	0.40	227	0.38	257	0.43	617	1.04	227	0.38	257	0.43
Ketchikan-Prince Rupert	91	54	0.59	59	0.65	66	0.73	116	1.27	59	0.65	66	0.73
Pelican-Bellingham	921	359	0.39	-	-	-	-	973	1.06	341	0.37	257	0.43
Pelican-Kake	205	80	0.39	-	-	-	-	192	0.94	63	0.31	70	0.34
Pelican-Ketchikan	326	144	0.44	-	-	-	-	364	1.12	92	0.28	104	0.32
Pelican-Petersburg	214	97	0.45	-	-	-	-	246	1.15	69	0.32	76	0.36
Pelican-Sitka	223	64	0.29	-	-	-	-	149	0.67	53	0.24	58	0.26

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	One-way Distance, NM	Passenger Fare Adult, One-way		Vehicle Rate - Up to 19 Feet Does Not Include Driver		One-Way, Cabin Fare - 2 berth							
						Inside, Full Facilities		Outside, Full Facilities		Inside, No Facilities		Outside, No Facilities	
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
Pelican-Wrangell	255	118	0.46	-	-	-	-	294	1.15	79	0.31	88	0.35
Pelican-Prince Rupert	417	186	0.45	-	-	-	-	465	1.12	124	0.3	144	0.35
Petersburg-Bellingham	707	279	0.39	260	0.37	296	0.42	712	1.01	260	0.37	296	0.42
Petersburg-Ketchikan	112	60	0.54	65	0.58	71	0.63	136	1.21	65	0.58	71	0.63
Petersburg-Wrangell	41	33	0.80	47	1.15	53	1.29	64	1.56	47	1.15	53	1.29
Petersburg-Prince Rupert	203	89	0.44	90	0.44	97	0.48	217	1.07	90	0.44	97	0.48
Skagway-Angoon	159	74	0.47	-	-	-	-	181	1.14	59	0.37	65	0.41
Skagway-Bellingham	911	363	0.40	337	0.37	393	0.43	976	1.07	337	0.37	393	0.43
Skagway-Hoonah	129	72	0.56	-	-	-	-	166	1.29	109	0.84	120	0.93
Skagway-Haines	13	31	2.38	50	3.85	53	4.08	49	3.77	50	3.85	53	4.08
Skagway-Juneau	81	50	0.62	59	0.73	65	0.80	111	1.37	59	0.73	65	0.80
Skagway-Kake	183	101	0.55	-	-	-	-	262	1.43	92	0.5	98	0.54
Skagway-Ketchikan	316	147	0.47	124	0.39	135	0.43	376	1.19	124	0.39	135	0.43
Skagway-Pelican	172	91	0.53	-	-	-	-	222	1.29	59	0.34	65	0.38
Skagway-Petersburg	204	101	0.50	93	0.46	100	0.49	262	1.28	93	0.46	100	0.49
Skagway-Sitka	213	76	0.36	79	0.37	86	0.40	188	0.88	79	0.37	86	0.40
Skagway-Tenakee	177	72	0.41	-	-	-	-	-	-	109	0.62	120	0.68
Skagway-Wrangell	245	122	0.50	100	0.41	111	0.45	308	1.26	100	0.41	111	0.45
Skagway-Prince Rupert	407	171	0.42	156	0.38	178	0.44	440	1.08	156	0.38	178	0.44
Sitka-Bellingham	823	301	0.37	288	0.35	327	0.40	780	0.95	288	0.35	327	0.40
Sitka-Kake	115	37	0.32	52	0.45	57	0.50	87	0.76	52	0.45	57	0.50

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	One-way Distance, NM	Passenger Fare Adult, One-way		Vehicle Rate - Up to 19 Feet Does Not Include Driver		One-Way, Cabin Fare - 2 berth							
						Inside, Full Facilities		Outside, Full Facilities		Inside, No Facilities		Outside, No Facilities	
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
Sitka-Ketchikan	224	83	0.37	83	0.37	89	0.40	204	0.91	83	0.37	89	0.40
Sitka-Petersburg	156	45	0.29	56	0.36	63	0.40	93	0.60	56	0.36	63	0.40
Sitka-Wrangell	197	60	0.30	65	0.33	72	0.37	137	0.70	65	0.33	72	0.37
Sitka-Prince Rupert	319	115	0.36	108	0.34	125	0.39	282	0.88	108	0.34	125	0.39
Tenakee-Angoon	35	31	0.89	-	-	-	-	-	-	-	-	-	-
Tenakee-Bellingham	842	326	0.39	-	-	-	-	-	-	308	0.37	352	0.42
Tenakee-Kake	88	50	0.57	-	-	-	-	-	-	58	0.66	65	0.74
Tenakee-Ketchikan	247	107	0.43	-	-	-	-	-	-	92	0.37	104	0.42
Tenakee-Pelican	188	50	0.27	-	-	-	-	-	-	-	-	-	-
Tenakee-Petersburg	135	66	0.49	-	-	-	-	-	-	69	0.51	76	0.56
Tenakee-Sitka	102	35	0.34	-	-	-	-	-	-	-	-	-	-
Tenakee-Wrangell	176	87	0.49	-	-	-	-	-	-	79	0.45	88	0.5
Tenakee-Prince Rupert	338	157	0.46	-	-	-	-	-	-	124	0.37	144	0.43
Wrangell-Bellingham	684	260	0.38	254	0.37	281	0.41	667	0.98	254	0.37	281	0.41
Wrangell-Ketchikan	89	37	0.42	55	0.62	58	0.65	91	1.02	55	0.62	58	0.65
Wrangell-Prince Rupert	180	78	0.43	83	0.46	88	0.49	176	0.98	83	0.46	88	0.49
Yakutat-Juneau	226	85	0.38	-	-	-	-	228	1.01	75	0.33	84	0.37
Yakutat-Ketchikan	479	186	0.39	-	-	-	-	525	1.10	144	0.3	159	0.33
Yakutat-Prince Rupert	570	241	0.42	-	-	-	-	658	1.15	186	0.33	206	0.36
Southwest													
Akutan-Dutch Harbor	45	31	0.69	-	-	30	0.67	-	-	-	-	30	0.67

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	One-way Distance, NM	Passenger Fare Adult, One-way		Vehicle Rate - Up to 19 Feet Does Not Include Driver		One-Way, Cabin Fare - 2 berth							
						Inside, Full Facilities		Outside, Full Facilities		Inside, No Facilities		Outside, No Facilities	
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
Cold Bay-Akutan	158	76	0.48	-	-	89	0.56	-	-	-	-	89	0.56
Cold Bay-False Pass	58	33	0.57	-	-	33	0.57	68	1.17	-	-	33	0.57
Cold Bay-Dutch Harbor	237	89	0.38	-	-	109	0.46	238	1.00	-	-	109	0.46
Chignik-Akutan	453	182	0.40	-	-	219	0.48	-	-	-	-	219	0.48
Chignik-Cold Bay	261	111	0.43	-	-	133	0.51	295	1.13	-	-	133	0.51
Chignik-False Pass	319	134	0.42	-	-	161	0.50	360	1.13	-	-	161	0.50
Chignik-King Cove	236	97	0.41	-	-	120	0.51	251	1.06	-	-	120	0.51
Chignik-Sand Point	138	66	0.48	-	-	84	0.61	157	1.14	-	-	84	0.61
Chignik-Dutch Harbor	498	192	0.39	-	-	203	0.41	510	1.02	-	-	203	0.41
False Pass-Akutan	134	54	0.40	-	-	61	0.46	-	-	-	-	61	0.46
False Pass-Dutch Harbor	103	72	0.70	-	-	84	0.82	174	1.69	-	-	84	0.82
Homer-Akutan	838	343	0.41	-	-	344	0.41	-	-	-	-	344	0.41
Homer-Cold Bay	646	272	0.42	-	-	259	0.40	731	1.13	-	-	259	0.40
Homer-Chignik	385	173	0.45	-	-	174	0.45	451	1.17	-	-	174	0.45
Homer-False Pass	704	295	0.42	-	-	288	0.41	793	1.13	-	-	288	0.41
Homer-King Cove	621	256	0.41	-	-	245	0.39	688	1.11	-	-	245	0.39
Homer-Kodiak	136	74	0.54	-	-	90	0.66	179	1.32	-	-	90	0.66
Homer-Port Lions	134	74	0.55	-	-	90	0.67	179	1.34	-	-	90	0.67
Homer-Sand Point	523	221	0.42	-	-	211	0.40	593	1.13	-	-	211	0.40
Homer-Dutch Harbor	883	351	0.40	-	-	389	0.44	949	1.07	-	-	389	0.44
King Cove-Akutan	217	97	0.45	-	-	134	0.62	-	-	-	-	134	0.62
King Cove-Cold Bay	25	33	1.32	-	-	52	2.08	63	2.52	-	-	52	2.08

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	One-way Distance, NM	Passenger Fare Adult, One-way		Vehicle Rate - Up to 19 Feet Does Not Include Driver		One-Way, Cabin Fare - 2 berth							
						Inside, Full Facilities		Outside, Full Facilities		Inside, No Facilities		Outside, No Facilities	
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
King Cove-False Pass	83	54	0.65	-	-	80	0.96	125	1.51	-	-	80	0.96
King Cove-Dutch Harbor	262	107	0.41	-	-	127	0.48	280	1.07	-	-	127	0.48
Kodiak-Akutan	702	281	0.40	-	-	304	0.43	-	-	-	-	304	0.43
Kodiak-Cold Bay	510	215	0.42	-	-	220	0.43	572	1.12	-	-	220	0.43
Kodiak-Chignik	249	111	0.45	-	-	127	0.51	295	1.18	-	-	127	0.51
Kodiak-False Pass	568	237	0.42	-	-	250	0.44	635	1.12	-	-	250	0.44
Kodiak-King Cove	485	200	0.41	-	-	206	0.42	524	1.08	-	-	206	0.42
Kodiak-Sand Point	387	163	0.42	-	-	173	0.45	433	1.12	-	-	173	0.45
Kodiak-Dutch Harbor	747	293	0.39	-	-	336	0.45	787	1.05	-	-	336	0.45
Port Lions-Akutan	750	281	0.37	-	-	304	0.41	-	-	-	-	304	0.41
Port Lions-Cold Bay	558	215	0.39	-	-	220	0.39	572	1.03	-	-	220	0.39
Port Lions-Chignik	297	111	0.37	-	-	127	0.43	295	0.99	-	-	127	0.43
Port Lions-False Pass	616	237	0.38	-	-	250	0.41	635	1.03	-	-	250	0.41
Port Lions-King Cove	533	200	0.38	-	-	206	0.39	524	0.98	-	-	206	0.39
Port Lions-Kodiak	48	33	0.69	-	-	52	1.08	68	1.42	-	-	52	1.08
Port Lions-Sand Point	435	163	0.37	-	-	173	0.40	433	1.00	-	-	173	0.40
Port Lions-Dutch Harbor	795	293	0.37	-	-	281	0.35	787	0.99	-	-	281	0.35
Sand Point-Akutan	315	134	0.43	-	-	170	0.54	-	-	-	-	170	0.54
Sand Point-Cold Bay	123	66	0.54	-	-	87	0.71	157	1.28	-	-	87	0.71

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	One-way Distance, NM	Passenger Fare Adult, One-way		Vehicle Rate - Up to 19 Feet Does Not Include Driver		One-Way, Cabin Fare - 2 berth							
						Inside, Full Facilities		Outside, Full Facilities		Inside, No Facilities		Outside, No Facilities	
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
Sand Point-False Pass	181	89	0.49	-	-	111	0.61	222	1.23	-	-	111	0.61
Sand Point-King Cove	98	50	0.51	-	-	72	0.73	115	1.17	-	-	72	0.73
Sand Point-Dutch Harbor	360	147	0.41	-	-	161	0.45	376	1.04	-	-	161	0.45
Seldovia-Akutan	855	347	0.41	-	-	353	0.41	-	-	-	-	353	0.41
Seldovia-Cold Bay	663	279	0.42	-	-	268	0.40	745	1.12	-	-	268	0.40
Seldovia-Chignik	402	178	0.44	-	-	184	0.46	465	1.16	161	0.4	184	0.46
Seldovia-False Pass	721	301	0.42	-	-	297	0.41	810	1.12	-	-	297	0.41
Seldovia-Homer	17	33	1.94	-	-	52	3.06	54	3.18	-	-	52	3.06
Seldovia-King Cove	638	260	0.41	-	-	254	0.40	705	1.11	-	-	254	0.40
Seldovia-Kodiak	153	80	0.52	-	-	97	0.63	195	1.27	-	-	97	0.63
Seldovia-Port Lions	151	80	0.53	-	-	97	0.64	195	1.29	-	-	97	0.64
Seldovia-Sand Point	540	227	0.42	-	-	219	0.41	608	1.13	-	-	219	0.41
Seldovia-Dutch Harbor	900	357	0.40	-	-	396	0.44	966	1.07	-	-	396	0.44

Table 11. AMHS Passenger, Vehicle, and Cabin Fares Per Nautical Mile, Sorted by Route Distance

Route	One-Way Distance, NM	Passenger Fare - Adult, One-Way		Vehicle Rate - Up to 19 FT Does Not Include Driver		One-Way, Cabin Fare - 2 berth							
						Inside, Full Facilities		Outside, Full Facilities		Inside, No Facilities		Outside, No Facilities	
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
Skagway-Haines	13	31	2.38	49	3.77	50	3.85	53	4.08	50	3.85	53	4.08
Seldovia-Homer	17	33	1.94	54	3.18	-	-	52	3.06	-	-	52	3.06
Tatitlek-Valdez	22	50	2.27	110	5.00	-	-	-	-	-	-	-	-
King Cove-Cold Bay	25	33	1.32	63	2.52	-	-	52	2.08	-	-	52	2.08
Tenakee-Angoon	35	31	0.89	-	-	-	-	-	-	-	-	-	-
Petersburg-Wrangell	41	33	0.80	64	1.56	47	1.15	53	1.29	47	1.15	53	1.29
Akutan-Dutch Harbor	45	31	0.69	-	-	-	-	30	0.67	-	-	30	0.67
Juneau-Hoonah	48	33	0.69	68	1.42	-	-	-	-	-	-	-	-
Port Lions-Kodiak	48	33	0.69	68	1.42	-	-	52	1.08	-	-	52	1.08
Hoonah-Tenakee	49	31	0.63	-	-	-	-	-	-	-	-	-	-
Cordova-Tatitlek	50	50	1.00	110	2.20	-	-	-	-	-	-	-	-
Cold Bay-False Pass	58	33	0.57	68	1.17	-	-	33	0.57	-	-	33	0.57
Angoon-Kake	60	47	0.78	104	1.73	-	-	-	-	63	1.05	70	1.17
Hoonah-Angoon	63	33	0.52	70	1.11	-	-	-	-	-	-	-	-
Hoonah-Pelican	64	35	0.55	84	1.31	-	-	-	-	-	-	-	-
Kake-Petersburg	65	35	0.54	79	1.22	49	0.75	55	0.85	49	0.75	55	0.85
Angoon-Sitka	67	35	0.52	75	1.12	-	-	-	-	-	-	-	-
Chenega Bay-Whittier	67	89	1.33	190	2.84	-	-	-	-	75	1.12	84	1.25
Haines-Juneau	68	37	0.54	86	1.26	59	0.87	65	0.96	59	0.87	65	0.96
Cordova-Valdez	74	50	0.68	110	1.49	-	-	-	-	52	0.70	59	0.80
Juneau-Angoon	78	37	0.47	84	1.08	-	-	-	-	-	-	-	-
Valdez-Whittier	78	89	1.14	123	1.58	-	-	-	-	104	1.33	118	1.51
Skagway-Juneau	81	50	0.62	111	1.37	59	0.73	65	0.80	59	0.73	65	0.80

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	One-Way Distance, NM	Passenger Fare - Adult, One-Way		Vehicle Rate - Up to 19 FT Does Not Include Driver		One-Way, Cabin Fare - 2 berth							
						Inside, Full Facilities		Outside, Full Facilities		Inside, No Facilities		Outside, No Facilities	
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
King Cove-False Pass	83	54	0.65	125	1.51	-	-	80	0.96	-	-	80	0.96
Valdez-Chenega Bay	87	89	1.02	190	2.18	-	-	-	-	104	1.20	202	2.32
Tenakee-Kake	88	50	0.57	-	-	-	-	-	-	58	0.66	65	0.74
Wrangell-Ketchikan	89	37	0.42	91	1.02	55	0.62	58	0.65	55	0.62	58	0.65
Juneau-Pelican	91	50	0.55	121	1.33	-	-	-	-	-	-	-	-
Ketchikan-Prince Rupert	91	54	0.59	116	1.27	59	0.65	66	0.73	59	0.65	66	0.73
Cordova-Chenega Bay	97	89	0.92	190	1.96	-	-	-	-	52	0.54	59	0.61
Cordova-Whittier	97	89	0.92	123	1.27	-	-	-	-	52	0.54	143	1.47
Juneau-Tenakee	97	35	0.36	-	-	-	-	-	-	-	-	-	-
Sand Point-King Cove	98	50	0.51	115	1.17	-	-	72	0.73	-	-	72	0.73
Angoon-Petersburg	100	64	0.64	149	1.49	-	-	-	-	69	0.69	76	0.76
Tatitlek-Whittier	100	89	0.89	123	1.23	-	-	-	-	104	1.04	118	1.18
Tenakee-Sitka	102	35	0.34	-	-	-	-	-	-	-	-	-	-
False Pass-Dutch Harbor	103	72	0.70	174	1.69	-	-	84	0.82	-	-	84	0.82
Kake-Wrangell	106	54	0.51	121	1.14	57	0.54	63	0.59	57	0.54	63	0.59
Tatitlek-Chenega Bay	109	89	0.82	190	1.74	-	-	-	-	104	0.95	202	1.85
Petersburg-Ketchikan	112	60	0.54	136	1.21	65	0.58	71	0.63	-	-	71	0.63
Juneau-Kake	114	66	0.58	167	1.46	63	0.55	70	0.61	63	0.55	70	0.61
Sitka-Kake	115	37	0.32	87	0.76	52	0.45	57	0.50	52	0.45	57	0.50
Hoonah-Kake	116	60	0.52	138	1.19	-	-	-	-	58	0.50	65	0.56
Haines-Hoonah	116	60	0.52	136	1.17	-	-	-	-	109	0.94	120	1.03

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	One-Way Distance, NM	Passenger Fare - Adult, One-Way		Vehicle Rate - Up to 19 FT Does Not Include Driver		One-Way, Cabin Fare - 2 berth							
						Inside, Full Facilities		Outside, Full Facilities		Inside, No Facilities		Outside, No Facilities	
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
Hoonah-Sitka	118	37	0.31	87	0.74	-	-	-	-	50	0.42	55	0.47
Juneau-Petersburg	123	66	0.54	167	1.36	69	0.56	76	0.62	69	0.56	76	0.62
Sand Point-Cold Bay	123	66	0.54	157	1.28	-	-	87	0.71	-	-	87	0.71
Skagway-Hoonah	129	72	0.56	166	1.29	-	-	-	-	109	0.84	120	0.93
Juneau-Sitka	132	45	0.34	92	0.70	53	0.40	58	0.44	53	0.40	58	0.44
False Pass-Akutan	134	54	0.40	-	-	-	-	61	0.46	-	-	61	0.46
Homer-Port Lions	134	74	0.55	179	1.34	-	-	90	0.67	-	-	90	0.67
Tenakee-Petersburg	135	66	0.49	-	-	-	-	-	-	69	0.51	76	0.56
Homer-Kodiak	136	74	0.54	179	1.32	-	-	90	0.66	-	-	90	0.66
Chignik-Sand Point	138	66	0.48	157	1.14	-	-	84	0.61	-	-	84	0.61
Haines-Angoon	146	66	0.45	152	1.04	-	-	-	-	59	0.40	65	0.45
Seldovia-Port Lions	151	80	0.53	195	1.29	-	-	97	0.64	-	-	86	0.57
Seldovia-Kodiak	153	80	0.52	195	1.27	-	-	97	0.63	-	-	86	0.56
Sitka-Petersburg	156	45	0.29	93	0.60	56	0.36	63	0.40	56	0.36	63	0.40
Cold Bay-Akutan	158	76	0.48	-	-	-	-	89	0.56	-	-	89	0.56
Haines-Pelican	159	76	0.48	191	1.20	-	-	-	-	-	-	-	-
Skagway-Angoon	159	74	0.47	181	1.14	-	-	-	-	59	0.37	65	0.41
Juneau-Wrangell	164	87	0.53	214	1.30	79	0.48	88	0.54	79	0.48	88	0.54
Haines-Tenakee	165	60	0.36	-	-	-	-	-	-	109	0.66	120	0.73
Angoon-Wrangell	166	80	0.48	195	1.17	-	-	-	-	79	0.48	88	0.53
Angoon-Pelican	169	60	0.36	136	0.80	-	-	-	-	-	-	-	-
Skagway-Pelican	172	91	0.53	222	1.29	-	-	-	-	59	0.34	65	0.38
Tenakee-Wrangell	176	87	0.49	-	-	-	-	-	-	79	0.45	88	0.50
Kake-Ketchikan	177	74	0.42	185	1.05	74	0.42	84	0.47	74	0.42	84	0.47
Skagway-Tenakee	177	72	0.41	-	-	-	-	-	-	109	0.62	120	0.68
Wrangell-Prince Rupert	180	78	0.43	176	0.98	83	0.46	88	0.49	83	0.46	88	0.49

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	One-Way Distance, NM	Passenger Fare - Adult, One-Way		Vehicle Rate - Up to 19 FT Does Not Include Driver		One-Way, Cabin Fare - 2 berth							
						Inside, Full Facilities		Outside, Full Facilities		Inside, No Facilities		Outside, No Facilities	
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
Hoonah-Petersburg	181	66	0.36	167	0.92	-	-	-	-	69	0.38	76	0.42
Sand Point-False Pass	181	89	0.49	222	1.23	-	-	111	0.61			111	0.61
Haines-Kake	182	89	0.49	233	1.28	-	-	-	-	122	0.67	135	0.74
Skagway-Kake	183	101	0.55	262	1.43	-	-	-	-	92	0.50	98	0.54
Tenakee-Pelican	188	50	0.27	-	-	-	-	-	-	-	-	-	-
Haines-Petersburg	191	89	0.47	233	1.22	93	0.49	100	0.52	93	0.49	100	0.52
Sitka-Wrangell	197	60	0.30	137	0.70	65	0.33	72	0.37	65	0.33	72	0.37
Haines-Sitka	200	66	0.33	159	0.80	79	0.40	86	0.43	79	0.40	86	0.43
Chenega Bay-Kodiak	201	91	0.45	225	1.12	-	-	-	-	-	-	99	0.49
Petersburg-Prince Rupert	203	89	0.44	217	1.07	90	0.44	97	0.48	90	0.44	97	0.48
Skagway-Petersburg	204	101	0.50	262	1.28	93	0.46	100	0.49	93	0.46	100	0.49
Pelican-Kake	205	80	0.39	192	0.94	-	-	-	-	63	0.31	70	0.34
Angoon-Ketchikan	212	99	0.47	259	1.22	-	-	-	-	92	0.43	104	0.49
Skagway-Sitka	213	76	0.36	188	0.88	79	0.37	86	0.40	79	0.37	86	0.40
Pelican-Petersburg	214	97	0.45	246	1.15	-	-	-	-	69	0.32	76	0.36
King Cove-Akutan	217	97	0.45	-	-	-	-	134	0.62	-	-	134	0.62
Hoonah-Wrangell	222	87	0.39	214	0.96	-	-	-	-	79	0.36	88	0.40
Pelican-Sitka	223	64	0.29	149	0.67	-	-	-	-	53	0.24	58	0.26
Sitka-Ketchikan	224	83	0.37	204	0.91	83	0.37	89	0.40	83	0.37	89	0.40
Yakutat-Juneau	226	85	0.38	228	1.01	-	-	-	-	75	0.33	84	0.37
Haines-Wrangell	232	107	0.46	280	1.21	100	0.43	111	0.48	100	0.43	111	0.48
Juneau-Ketchikan	235	107	0.46	280	1.19	92	0.39	104	0.44	92	0.39	104	0.44
Chignik-King Cove	236	97	0.41	251	1.06	-	-	120	0.51	-	-	120	0.51
Valdez-Homer	371	202	0.54	536	1.44	-	-	-	-	-	-	-	-

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	One-Way Distance, NM	Passenger Fare - Adult, One-Way		Vehicle Rate - Up to 19 FT Does Not Include Driver		One-Way, Cabin Fare - 2 berth							
						Inside, Full Facilities		Outside, Full Facilities		Inside, No Facilities		Outside, No Facilities	
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
Cold Bay-Dutch Harbor	237	89	0.38	238	1.00	-	-	109	0.46	-	-	109	0.46
Skagway-Wrangell	245	122	0.50	308	1.26	100	0.41	111	0.45	100	0.41	111	0.45
Tenakee-Ketchikan	247	107	0.43	-	-	-	-	-	-	92	0.37	104	0.42
Kodiak-Chignik	249	111	0.45	295	1.18	-	-	127	0.51	-	-	127	0.51
Pelican-Wrangell	255	118	0.46	294	1.15	-	-	-	-	79	0.31	88	0.35
Chignik-Cold Bay	261	111	0.43	295	1.13	-	-	133	0.51	-	-	133	0.51
King Cove-Dutch Harbor	262	107	0.41	280	1.07	-	-	127	0.48	-	-	127	0.48
Whittier-Port Lions	264	91	0.34	225	0.85	-	-	-	-	-	-	99	0.38
Whittier-Kodiak	266	91	0.34	225	0.85	-	-	-	-	-	-	99	0.37
Kake-Prince Rupert	268	108	0.40	262	0.98	98	0.37	110	0.41	98	0.37	110	0.41
Tatitlek-Port Lions	286	147	0.51	376	1.31	-	-	-	-	104	0.36	217	0.76
Valdez-Port Lions	286	147	0.51	376	1.31	-	-	-	-	104	0.36	217	0.76
Tatitlek-Kodiak	288	147	0.51	376	1.31	-	-	-	-	104	0.36	217	0.75
Valdez-Kodiak	288	147	0.51	376	1.31	-	-	-	-	104	0.36	217	0.75
Hoonah-Ketchikan	293	107	0.37	280	0.96	-	-	-	-	92	0.31	104	0.35
Cordova-Port Lions	296	147	0.50	376	1.27	-	-	-	-	52	0.18	158	0.53
Port Lions-Chignik	297	111	0.37	295	0.99	-	-	127	0.43	-	-	127	0.43
Cordova-Kodiak	298	147	0.49	376	1.26	-	-	-	-	52	0.17	158	0.53
Whittier-Yakutat	302	163	0.54	449	1.49	-	-	-	-	139	0.46	156	0.52
Angoon-Prince Rupert	303	149	0.49	364	1.20	-	-	-	-	124	0.41	144	0.48
Haines-Ketchikan	303	134	0.44	350	1.16	124	0.41	135	0.45	124	0.41	135	0.45
Sand Point-Akutan	315	134	0.43	-	-	-	-	170	0.54	-	-	170	0.54
Skagway-Ketchikan	316	147	0.47	376	1.19	124	0.39	135	0.43	124	0.39	135	0.43
Chignik-False Pass	319	134	0.42	360	1.13	-	-	161	0.50	-	-	161	0.50

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	One-Way Distance, NM	Passenger Fare - Adult, One-Way		Vehicle Rate - Up to 19 FT Does Not Include Driver		One-Way, Cabin Fare - 2 berth							
						Inside, Full Facilities		Outside, Full Facilities		Inside, No Facilities		Outside, No Facilities	
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
Sitka-Prince Rupert	319	115	0.36	282	0.88	108	0.34	125	0.39	108	0.34	125	0.39
Haines-Prince Rupert	326	160	0.49	416	1.28	156	0.48	178	0.55	156	0.48	178	0.55
Juneau-Prince Rupert	326	141	0.43	360	1.10	124	0.38	144	0.44	124	0.38	144	0.44
Pelican-Ketchikan	326	144	0.44	364	1.12	-	-	-	-	92	0.28	104	0.32
Chenega Bay-Homer	337	159	0.47	408	1.21	-	-	-	-	136	0.40	158	0.47
Tenakee-Prince Rupert	338	157	0.46	-	-	-	-	-	-	124	0.37	144	0.43
Chenega Bay-Seldovia	354	163	0.46	423	1.19	-	-	-	-	-	-	185	0.52
Sand Point-Dutch Harbor	360	147	0.41	376	1.04	-	-	161	0.45	-	-	161	0.45
Hoonah-Prince Rupert	384	157	0.41	400	1.04	-	-	-	-	124	0.32	144	0.38
Homer-Chignik	385	173	0.45	451	1.17	-	-	174	0.45	-	-	174	0.45
Kodiak-Sand Point	387	163	0.42	433	1.12	-	-	173	0.45	-	-	173	0.45
Seldovia-Chignik	402	178	0.44	465	1.16	-	-	184	0.46	161	0.40	184	0.46
Whittier-Homer	402	159	0.40	408	1.01	-	-	-	-	136	0.34	158	0.39
Skagway-Prince Rupert	407	171	0.42	440	1.08	156	0.38	178	0.44	156	0.38	178	0.44
Pelican-Prince Rupert	417	186	0.45	465	1.12	-	-	-	-	124	0.30	144	0.35
Whittier-Seldovia	419	163	0.39	423	1.01	-	-	-	-	-	-	185	0.44
Port Lions-Sand Point	435	163	0.37	433	1.00	-	-	173	0.40	-	-	173	0.40
Valdez-Seldovia	441	206	0.47	553	1.25	-	-	-	-	104	0.24	303	0.69
Tatitlek-Homer	446	202	0.45	536	1.20	-	-	-	-	104	0.23	297	0.67

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	One-Way Distance, NM	Passenger Fare - Adult, One-Way		Vehicle Rate - Up to 19 FT Does Not Include Driver		One-Way, Cabin Fare - 2 berth							
						Inside, Full Facilities		Outside, Full Facilities		Inside, No Facilities		Outside, No Facilities	
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
Chignik-Akutan	453	182	0.40	-	-	-	-	219	0.48	-	-	219	0.48
Tatitlek-Seldovia	463	206	0.44	553	1.19	-	-	-	-	104	0.22	303	0.65
Yakutat-Ketchikan	479	186	0.39	525	1.10	-	-	-	-	144	0.30	159	0.33
Kodiak-King Cove	485	200	0.41	524	1.08	-	-	206	0.42	-	-	206	0.42
Chignik-Dutch Harbor	498	192	0.39	510	1.02	-	-	203	0.41	-	-	203	0.41
Kodiak-Cold Bay	510	215	0.42	572	1.12	-	-	220	0.43	-	-	220	0.43
Cordova-Homer	514	202	0.39	536	1.04	-	-	-	-	52	0.10	238	0.46
Cordova-Seldovia	516	206	0.40	553	1.07	-	-	-	-	52	0.10	244	0.47
Homer-Sand Point	523	221	0.42	593	1.13	-	-	211	0.40	-	-	211	0.40
Whittier-Juneau	528	221	0.42	604	1.14	-	-	-	-	189	0.36	212	0.40
Port Lions-King Cove	533	200	0.38	524	0.98	-	-	206	0.39	-	-	206	0.39
Seldovia-Sand Point	540	227	0.42	608	1.13	-	-	219	0.41	-	-	219	0.41
Port Lions-Cold Bay	558	215	0.39	572	1.03	-	-	220	0.39	-	-	220	0.39
Kodiak-False Pass	568	237	0.42	635	1.12	-	-	250	0.44	-	-	250	0.44
Yakutat-Prince Rupert	570	241	0.42	658	1.15	-	-	-	-	186	0.33	-	-
Ketchikan-Bellingham	595	239	0.40	617	1.04	227	0.38	257	0.43	227	0.38	257	0.43
Port Lions-False Pass	616	237	0.38	635	1.03	-	-	250	0.41	-	-	250	0.41
Homer-King Cove	621	256	0.41	688	1.11	-	-	245	0.39	-	-	245	0.39
Seldovia-King Cove	638	260	0.41	705	1.11	-	-	254	0.40	-	-	254	0.40
Homer-Cold Bay	646	272	0.42	731	1.13	-	-	259	0.40	-	-	259	0.40
Seldovia-Cold Bay	663	279	0.42	745	1.12	-	-	268	0.40	-	-	268	0.40
Wrangell-Bellingham	684	260	0.38	667	0.98	254	0.37	281	0.41	254	0.37	281	0.41
Kodiak-Akutan	702	281	0.40	-	-	-	-	304	0.43	-	-	304	0.43

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	One-Way Distance, NM	Passenger Fare - Adult, One-Way		Vehicle Rate - Up to 19 FT Does Not Include Driver		One-Way, Cabin Fare - 2 berth							
						Inside, Full Facilities		Outside, Full Facilities		Inside, No Facilities		Outside, No Facilities	
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
Homer-False Pass	704	295	0.42	793	1.13	-	-	288	0.41	-	-	288	0.41
Petersburg-Bellingham	707	279	0.39	712	1.01	260	0.37	296	0.42	260	0.37	296	0.42
Seldovia-False Pass	721	301	0.42	810	1.12	-	-	297	0.41	-	-	297	0.41
Kodiak-Dutch Harbor	747	293	0.39	787	1.05	-	-	336	0.45	-	-	336	0.45
Port Lions-Akutan	750	281	0.37	-	-	-	-	304	0.41	-	-	304	0.41
Whittier-Ketchikan	751	320	0.43	870	1.16	-	-	-	-	256	0.34	284	0.38
Kake-Bellingham	772	293	0.38	759	0.98	-	-	-	-	350	0.45	389	0.50
Port Lions-Dutch Harbor	795	293	0.37	787	0.99	-	-	281	0.35	-	-	281	0.35
Angoon-Bellingham	807	320	0.40	833	1.03	-	-	-	-	308	0.38	352	0.44
Sitka-Bellingham	823	301	0.37	780	0.95	288	0.35	327	0.40	288	0.35	327	0.40
Juneau-Bellingham	830	326	0.39	877	1.06	308	0.37	352	0.42	308	0.37	352	0.42
Homer-Akutan	838	343	0.41	-	-	-	-	344	0.41	-	-	344	0.41
Tenakee-Bellingham	842	326	0.39	-	-	-	-	-	-	308	0.37	352	0.42
Whittier-Prince Rupert	854	372	0.44	1,005	1.18	-	-	-	-	290	0.34	322	0.38
Seldovia-Akutan	855	347	0.41	-	-	-	-	353	0.41	-	-	353	0.41
Hoonah-Bellingham	870	326	0.37	877	1.01	-	-	-	-	358	0.41	407	0.47
Homer-Dutch Harbor	883	351	0.40	949	1.07	-	-	389	0.44	-	-	389	0.44
Haines-Bellingham	898	353	0.39	949	1.06	337	0.38	393	0.44	337	0.38	393	0.44
Seldovia-Dutch Harbor	900	357	0.40	966	1.07	-	-	396	0.44	-	-	396	0.44
Skagway-Bellingham	911	363	0.40	976	1.07	337	0.37	393	0.43	337	0.37	393	0.43
Pelican-Bellingham	921	359	0.39	973	1.06	-	-	-	-	341	0.37	327	0.36

Table 12. Routes With Passenger, Vehicle or Cabin Fares Above(+) or Below(-)Percent Target Range

Route	Passenger	19 Foot Vehicle	Inside Berth	Outside Berth
Percent Above (+) or Below (-) Target Range				
Southeast Inside Passage				
ANG to BEL	0	0	0	0
ANG to KTN	0	0	0	0
ANG to PEL	-21.23	-28.32	0	0
ANG to PSG	0	0	0	0
ANG to WRG	0	0	0	0
ANG to YPR	0	0	0	0
HNH to BEL	0	0	0	0
HNH to KAE	0	0	0	0
HNH to KTN	-18.98	0	0	0
HNH to PSG	-19.1	-17.82	0	0
HNH to SIT	-30.43	-34.33	0	0
HNH to WRG	0	0	0	0
HNH to YPR	0	0	0	0
HNS to ANG	0	0	0	0
HNS to BEL	0	0	0	0
HNS to HNH	0	0	0	0
HNS to JNU	0	0	0	0
HNS to KAE	0	0	0	0
HNS to KTN	0	0	0	0
HNS to PEL	0	0	0	0
HNS to PSG	0	0	0	0
HNS to SIT	-26.78	-29.19	0	-18.56
HNS to TKE	-19.32	0	0	0
HNS to WRG	0	0	0	0
HNS to YPR	0	0	20.52	20.47
JNU to ANG	-30.16	-25.29	0	0
JNU to BEL	0	0	0	0
JNU to KAE	28.45	30.48	25.41	16.3
JNU to KTN	0	0	0	-16.18
JNU to PSG	19.05	20.93	27.3	17.03
JNU to SIT	-24.36	-37.92	0	-16.78
JNU to TKE	-46.88	0	0	0
JNU to WRG	17.7	16.22	0	0
JNU to YPR	0	0	0	0
KAE to BEL	0	0	0	0
KAE to KTN	0	0	0	0
KAE to WRG	0	0	22.03	0
KAE to YPR	0	0	-17.02	-22.26
KTN to BEL	0	0	0	0

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	Passenger	19 Foot Vehicle	Inside Berth	Outside Berth
KTN to YPR	0	0	0	0
PEL to BEL	0	0	0	0
PEL to KAE	0	-16.58	0	0
PEL to KTN	0	0	0	0
PEL to PSG	0	0	0	0
PEL to SIT	-36.33	-40.49	0	0
PEL to WRG	0	0	0	0
PEL to YPR	0	0	0	0
PSG to BEL	0	0	0	0
PSG to KTN	18.86	0	31.7	20.07
PSG to WRG	-33.46	-40.7	-54.08	-36.73
PSG to YPR	0	0	0	0
SGY to ANG	0	0	0	0
SGY to BEL	0	0	0	0
SGY to HNH	23.83	0	0	0
SGY to HNS	97.14	43.18	54.08	99.55
SGY to JNU	0	0	0	0
SGY to KAE	22.45	27.52	0	0
SGY to KTN	0	0	0	0
SGY to PEL	17.38	0	0	0
SGY to PSG	0	0	0	0
SGY to SIT	-20.84	-21.39	-15.84	-23.53
SGY to TKE	0	0	0	0
SGY to WRG	0	0	0	0
SGY to YPR	0	0	0	0
SIT to BEL	0	0	0	0
SIT to KTN	-17.79	-18.88	-15.92	-24.75
SIT to PSG	-36	-46.9	-18.54	-23.51
SIT to WRG	-32.43	-38.06	-25.13	-30.78
SIT to YPR	-17.17	-22.19	0	0
TKE to BEL	0	0	0	0
TKE to KAE	0	0	0	0
TKE to KTN	0	0	0	0
TKE to PEL	-40.99	0	0	0
TKE to PSG	0	0	0	0
TKE to SIT	-23.87	0	0	0
TKE to WRG	0	0	0	0
TKE to YPR	0	0	0	0
WRG to BEL	0	0	0	0
WRG to KTN	-38.79	-29.07	0	0
WRG to YPR	0	0	0	0
YAK to JNU	-16.56	0	0	0
YAK to KTN	0	0	0	0

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	Passenger	19 Foot Vehicle	Inside Berth	Outside Berth
YAK to YPR	0	0	0	0
Southeast Feeder				
ANG to KAE	0	0	0	0
ANG to SIT	0	0	0	0
HNH to ANG	0	0	0	0
HNH to PEL	0	0	0	0
HNH to TKE	-47.7	0	0	0
JNU to HNH	-43.16	-46.19	0	0
JNU to PEL	0	0	0	0
KAE to PSG	0	0	0	0
SIT to KAE	-28.62	-32.62	0	0
TKE to ANG	-26.78	0	0	0
Cross Gulf				
WTR to JNU	0	0	0	0
WTR to KTN	0	0	0	0
WTR to YAK	24.01	30.86	0	0
WTR to YPR	0	0	0	0
Southcentral				
CDV to CHB	35.09	35.89	0	0
CDV to HOM	0	0	0	0
CDV to KOD	0	0	0	0
CDV to ORI	0	0	0	0
CDV to SDV	0	0	0	0
CDV to TAT	0	0	0	0
CDV to VDZ	0	0	0	0
CDV to WTR	35.09	0	0	0
CHB to HOM	0	0	0	0
CHB to KOD	0	0	0	0
CHB to SDV	0	0	0	0
CHB to WTR	95.57	96.73	0	0
TAT to CHB	81.15	55.26	0	0
TAT to HOM	0	0	0	0
TAT to KOD	0	16.28	0	0
TAT to ORI	0	17.1	0	0
TAT to SDV	0	0	0	0
TAT to VDZ	87.89	89.93	0	0
TAT to WTR	31.03	0	0	0
VDZ to CHB	50.61	51.51	0	0
VDZ to HOM	0	0	0	0
VDZ to KOD	0	16.28	0	0
VDZ to ORI	0	17.1	0	0
VDZ to SDV	0	0	0	0
VDZ to WTR	67.99	0	0	0

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	Passenger	19 Foot Vehicle	Inside Berth	Outside Berth
WTR to HOM	0	0	0	0
WTR to KOD	-24.1	-24.66	0	0
WTR to ORI	-23.52	-24.09	0	0
WTR to SDV	0	0	0	0
Southwest				
AKU to UNA	-43.05	0	0	-67.37
CBY to AKU	0	0	0	0
CBY to FPS	0	0	0	-27.16
CBY to UNA	-16.68	0	0	0
CHG to AKU	0	0	0	0
CHG to CBY	0	0	0	0
CHG to FPS	0	0	0	0
CHG to KCV	0	0	0	0
CHG to SDP	0	0	0	15.29
CHG to UNA	0	0	0	0
FPS to AKU	0	0	0	0
FPS to UNA	55.09	50.46	0	54.47
HOM to AKU	0	0	0	0
HOM to CBY	0	0	0	0
HOM to CHG	0	0	0	0
HOM to FPS	0	0	0	0
HOM to KCV	0	0	0	0
HOM to KOD	20.72	17.23	0	25.34
HOM to ORI	22.52	18.98	0	27.21
HOM to SDP	0	0	0	0
HOM to UNA	0	0	0	0
KCV to AKU	0	0	0	16.96
KCV to CBY	0	0	0	0
KCV to FPS	0	0	0	0
KCV to UNA	0	0	0	0
KOD to AKU	0	0	0	0
KOD to CBY	0	0	0	0
KOD to CHG	0	0	0	0
KOD to FPS	0	0	0	0
KOD to KCV	0	0	0	0
KOD to SDP	0	0	0	0
KOD to UNA	0	0	0	0
ORI to AKU	0	0	0	0
ORI to CBY	0	0	0	0
ORI to CHG	-17.08	0	0	-19.01
ORI to FPS	0	0	0	0
ORI to KCV	0	0	0	0
ORI to KOD	-43.16	-46.19	0	-46.98

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	Passenger	19 Foot Vehicle	Inside Berth	Outside Berth
ORI to SDP	0	0	0	0
ORI to UNA	0	0	0	0
SDP to AKU	0	0	0	19.08
SDP to CBY	19.05	0	0	33.97
SDP to FPS	0	0	0	16.15
SDP to KCV	0	0	0	0
SDP to UNA	0	0	0	0
SDV to AKU	0	0	0	0
SDV to CBY	0	0	0	0
SDV to CHG	0	0	0	0
SDV to FPS	0	0	0	0
SDV to HOM	60.48	0	0	49.72
SDV to KCV	0	0	0	0
SDV to KOD	16.01	0	0	20.08
SDV to ORI	17.54	15.02	0	21.67
SDV to SDP	0	0	0	0
SDV to UNA	0	0	0	0

B. Other Ferry Passenger/Vehicle/Cabin Rate Table

Table 13. Other Ferry Passenger/Vehicle/Cabin Rates

Route	OW Distance - NM	Passenger Fare-Adult One-Way				Vehicle-Up to 19 Feet Fare				Cabin-Two Berth-Full Facilities							
		Peak		Low		Peak		Low		Inside				Outside			
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
Marine Atlantic																	
Port aux Basques, N.L. to North Sydney, N.S.	96	29.78	0.31	29.78	0.31	84.54	0.88	84.54	0.88	124.50	1.30	62.82	0.65	124.50	1.30	62.82	0.65
Argentia, N.L. to North Sydney, N.S.	280	83.48	0.30	83.48	0.30	173.60	0.62	173.60	0.62					170.19	0.61	170.19	0.61
DFDS Seaways																	
Copenhagen to Oslo	272	398.66	1.47			110.40	0.41	88.93	0.33	242.26	0.89	144.13	0.53	312.79	1.15	220.80	0.81
Esbjerg to Harwich	334		0.00			180.93	0.54	156.40	0.47					463.06	1.39	321.99	0.96
Bergen to Newcastle	406	768.18	1.89			110.40	0.27	0.00		334.26	0.82			355.73	0.88		
Amsterdam to Newcastle	286	401.72	1.40					0.00									
Stena Lines																	
Oslo to Frederikshavn	156	27.10	0.17			280.73	1.80	48.40	0.31	116.16	0.74	77.44	0.50	178.12	1.14	116.16	0.74
Goteborg to Frederikshavn	50	44.53	0.89			121.97	2.44	60.02	1.20	0.00		0.00					
Varberg to Grenaa	65	39.69	0.61			158.76	2.44	60.02	0.92	32.91	0.51	32.91				52.27	0.80
Goteborg to Kiel	236	95.84	0.41			290.41	1.23	82.28	0.35	193.61	0.82	193.61	0.82	222.65	0.94	222.65	0.94

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	OW Distance - NM	Passenger Fare-Adult One-Way		Vehicle-Up to 19 Feet Fare				Cabin-Two Berth-Full Facilities									
								Inside				Outside					
		Peak	Low	Peak	Low	Peak	Low	Peak	Low	Peak	Low	Peak	Low				
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM		
Karlskrona to Gdynia	168	97.77	0.58			80.35	0.48	57.11	0.34	122.94	0.73	121.00	0.72	159.73	0.95	161.66	0.96
Hoek van Holland to Harwich	110	50.60	0.46			154.86	1.41	108.86	0.99	88.93	0.81	76.67	0.70	104.26	0.95	92.00	0.84
Stranaer to Belfast	46	53.67	1.17			230.00	5.00	69.00	1.50					0.00			
Fleetwood to Larne	125	0.00	0.00			298.99	2.39	230.00	1.84	99.66	0.80	99.66	0.80	99.66	0.80	99.66	0.80
Holyhead to Dun Laoghaire	53	53.67	1.01			337.33	6.36	115.00	2.17								
Fishguard to Rosslare	55	53.67	0.98			199.33	3.62	92.00	1.67					61.33	1.12	61.33	1.12
Hurtigruten																	
Bergen to Floroe	88	120.62	1.37	84.41	0.96	66.41	0.75			83.25	0.95	42.59	0.48	87.12	0.99	48.40	0.55
Floroe to Maloey	28	38.33	1.37	26.91	0.96	66.41	2.37			83.25	2.97	42.59	1.52	87.12	3.11	48.40	1.73
Maloey to Torvik	39	53.44	1.37	37.37	0.96	66.41	1.70			83.25	2.13	42.59	1.09	87.12	2.23	48.40	1.24
Torvik to Aalesund	15	20.52	1.37	14.33	0.96	66.41	4.43			83.25	5.55	42.59	2.84	87.12	5.81	48.40	3.23
Aalesund to Molde	35	47.82	1.37	33.30	0.95	66.41	1.90			83.25	2.38	42.59	1.22	87.12	2.49	48.40	1.38
Molde to Kristiansund	48	65.44	1.36	45.88	0.96	66.41	1.38			83.25	1.73	42.59	0.89	87.12	1.82	48.40	1.01
Kristiansund to Trondheim	91	124.88	1.37	87.51	0.96	66.41	0.73			83.25	0.91	42.59	0.47	87.12	0.96	48.40	0.53
Trondheim to Roervik	125	169.21	1.35	118.49	0.95	78.22	0.63			83.25	0.67	42.59	0.34	87.12	0.70	48.40	0.39
Roervik to Broennoeysund	46	62.92	1.37	43.95	0.96	66.41	1.44			83.25	1.81	42.59	0.93	87.12	1.89	48.40	1.05
Broennoeysund to Sandnessjoen	36	48.98	1.36	34.27	0.95	66.41	1.84			83.25	2.31	42.59	1.18	87.12	2.42	48.40	1.34
Sandnessjoen to Nesna	15	20.52	1.37	14.33	0.96	66.41	4.43			83.25	5.55	42.59	2.84	87.12	5.81	48.40	3.23

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	OW Distance - NM	Passenger Fare-Adult One-Way		Vehicle-Up to 19 Feet Fare				Cabin-Two Berth-Full Facilities									
		Peak		Low		Peak		Low		Inside				Outside			
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
Nesna to Oernes	51	70.09	1.37	48.98	0.96	66.41	1.30			83.25	1.63	42.59	0.84	87.12	1.71	48.40	0.95
Oernes to Bodoe	39	53.44	1.37	37.37	0.96	66.41	1.70			83.25	2.13	42.59	1.09	87.12	2.23	48.40	1.24
Bodoe to Stamsund	55	76.86	1.40	53.82	0.98	66.41	1.21			83.25	1.51	42.59	0.77	87.12	1.58	48.40	0.88
Stamsund to Svolvaer	20	27.30	1.36	19.17	0.96	66.41	3.32			83.25	4.16	42.59	2.13	87.12	4.36	48.40	2.42
Svolvaer to Stokmarknes	35	47.43	1.36	33.30	0.95	66.41	1.90			83.25	2.38	42.59	1.22	87.12	2.49	48.40	1.38
Stokmarknes to Sortland	15	20.52	1.37	14.33	0.96	66.41	4.43			83.25	5.55	42.59	2.84	87.12	5.81	48.40	3.23
Sortland to Risoeyhamn	18	24.78	1.38	17.42	0.97	66.41	3.69			83.25	4.63	42.59	2.37	87.12	4.84	48.40	2.69
Risoeyhamn to Harstad	27	36.98	1.37	25.94	0.96	66.41	2.46			83.25	3.08	42.59	1.58	87.12	3.23	48.40	1.79
Harstad to Finnsnes	44	60.41	1.37	42.21	0.96	66.41	1.51			83.25	1.89	42.59	0.97	87.12	1.98	48.40	1.10
Finnsnes to Tromsoe	37	50.34	1.36	35.24	0.95	66.41	1.79			83.25	2.25	42.59	1.15	87.12	2.35	48.40	1.31
Tromsoe to Skjerveoy	53	72.60	1.37	50.73	0.96	66.41	1.25			83.25	1.57	42.59	0.80	87.12	1.64	48.40	0.91
Skjerveoy to Oeksfjord	45	61.76	1.37	43.17	0.96	66.41	1.48			83.25	1.85	42.59	0.95	87.12	1.94	48.40	1.08
Oeksfjord to Hammerfest	41	55.95	1.36	39.30	0.96	66.41	1.62			83.25	2.03	42.59	1.04	87.12	2.12	48.40	1.18
Hammerfest to Havoey Sund	37	50.34	1.36	35.24	0.95	66.41	1.79			83.25	2.25	42.59	1.15	87.12	2.35	48.40	1.31
Havoey Sund to Honningsvaag	28	38.33	1.37	26.91	0.96	66.41	2.37			83.25	2.97	42.59	1.52	87.12	3.11	48.40	1.73
Honningsvaag to Kjoellefjord	29	39.50	1.36	27.69	0.95	66.41	2.29			83.25	2.87	42.59	1.47	87.12	3.00	48.40	1.67

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	OW Distance - NM	Passenger Fare-Adult One-Way		Vehicle-Up to 19 Feet Fare				Cabin-Two Berth-Full Facilities									
								Inside				Outside					
		Peak		Low		Peak		Low		Peak		Low		Peak		Low	
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
Kjoellefjord to Mehamn	26	35.82	1.38	25.17	0.97	66.41	2.55			83.25	3.20	42.59	1.64	87.12	3.35	48.40	1.86
Mehamn to Berlevaag	36	47.43	1.32	33.30	0.93	68.54	1.90			83.25	2.31	42.59	1.18	87.12	2.42	48.40	1.34
Berlevaag to Baatsfjord	23	31.36	1.36	22.07	0.96	66.41	2.89			83.25	3.62	42.59	1.85	87.12	3.79	48.40	2.10
Baatsfjord to Vardoe	39	53.44	1.37	37.37	0.96	66.41	1.70			83.25	2.13	42.59	1.09	87.12	2.23	48.40	1.24
Vardoe to Vadsø	42	57.11	1.36	40.08	0.95	66.41	1.58			83.25	1.98	42.59	1.01	87.12	2.07	48.40	1.15
Vadsø to Kirkenes	24	33.11	1.38	23.23	0.97	66.41	2.77			83.25	3.47	42.59	1.77	87.12	3.63	48.40	2.02
Bergen to Torvik	155	196.12	1.27	137.27	0.89	92.35	0.60			83.25	0.54	42.59	0.27	87.12	0.56	48.40	0.31
Bergen to Kristiansund	253	333.00	1.32	189.35	0.75	127.78	0.51			166.50	0.66	85.19	0.34	174.25	0.69	96.80	0.38
Bergen to Broennoeysund	515	449.17	0.87	314.42	0.61	210.84	0.41			249.75	0.48	127.78	0.25	261.37	0.51	145.21	0.28
Bergen to Oernes	617	530.87	0.86	371.53	0.60	248.40	0.40			249.75	0.40	127.78	0.21	261.37	0.42	145.21	0.24
Bergen to Svolvaer	731	604.05	0.83	422.84	0.58	288.86	0.40			249.75	0.34	127.78	0.17	261.37	0.36	145.21	0.20
Bergen to Risoeyhamn	799	647.03	0.81	452.85	0.57	307.64	0.39			333.00	0.42	170.37	0.21	348.49	0.44	193.61	0.24
Bergen to Tromsø	907	722.15	0.80	505.51	0.56	338.43	0.37			333.00	0.37	170.37	0.19	348.49	0.38	193.61	0.21
Bergen to Hammerfest	1046	845.09	0.81	591.66	0.57	381.02	0.36			416.26	0.40	212.97	0.20	435.62	0.42	242.01	0.23
Bergen to Kjoellefjord	1140	941.51	0.83	659.04	0.58	409.48	0.36			416.26	0.37	212.97	0.19	435.62	0.38	242.01	0.21
Bergen to Baatsfjord	1225	1021.66	0.83	715.18	0.58	433.10	0.35			499.51	0.41	255.56	0.21	522.74	0.43	290.41	0.24

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	OW Distance - NM	Passenger Fare-Adult One-Way		Vehicle-Up to 19 Feet Fare				Cabin-Two Berth-Full Facilities									
		Peak		Low		Peak		Low		Inside				Outside			
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
Bergen to Kirkenes	1330	1119.24	0.84	783.91	0.59	456.72	0.34			499.51	0.38	255.56	0.19	522.74	0.39	290.41	0.22
Floroe to Torvik	67	91.58	1.37	64.08	0.96	66.41	0.99			83.25	1.24	42.59	0.64	87.12	1.30	48.40	0.72
Floroe to Molde	117	233.49	2.00	111.13	0.95	82.86	0.71			83.25	0.71	42.59	0.36	87.12	0.74	48.40	0.41
Floroe to Roervik	381	332.04	0.87	232.33	0.61	156.05	0.41			166.50	0.44	85.19	0.22	174.25	0.46	96.80	0.25
Floroe to Nesna	478	418.77	0.88	293.12	0.61	196.51	0.41			249.75	0.52	127.78	0.27	261.37	0.55	145.21	0.30
Floroe to Stamsund	623	532.23	0.85	372.50	0.60	250.91	0.40			249.75	0.40	127.78	0.21	261.37	0.42	145.21	0.23
Floroe to Sortland	693	564.17	0.81	394.96	0.57	265.05	0.38			333.00	0.48	170.37	0.25	348.49	0.50	193.61	0.28
Floroe to Finnsnes	782	613.73	0.78	429.61	0.55	293.31	0.38			333.00	0.43	170.37	0.22	348.49	0.45	193.61	0.25
Floroe to Oeksfjord	917	728.74	0.79	510.15	0.56	338.43	0.37			416.26	0.45	212.97	0.23	435.62	0.48	242.01	0.26
Floroe to Honningsvaag	1023	779.46	0.76	569.98	0.56	369.01	0.36			416.26	0.41	212.97	0.21	435.62	0.43	242.01	0.24
Floroe to Berlevaag	1114	892.53	0.80	624.77	0.56	395.35	0.35			416.26	0.37	212.97	0.19	435.62	0.39	242.01	0.22
Floroe to Vadsoe	1218	999.98	0.82	699.89	0.57	425.94	0.35			499.51	0.41	255.56	0.21	522.74	0.43	290.41	0.24
Maaloey to Aalesund	54	73.76	1.37	51.50	0.95	70.86	1.31			83.25	1.54	42.59	0.79	87.12	1.61	48.40	0.90
Maaloey to Trondheim	228	246.07	1.08	172.31	0.76	115.97	0.51			166.50	0.73	85.19	0.37	174.25	0.76	96.80	0.42
Maaloey to Sandnessjoen	435	381.21	0.88	266.79	0.61	179.67	0.41			249.75	0.57	127.78	0.29	261.37	0.60	145.21	0.33
Maaloey to Bodoe	540	464.46	0.86	325.07	0.60	217.81	0.40			249.75	0.46	127.78	0.24	261.37	0.48	145.21	0.27
Maaloey to Stokmarknes	650	536.48	0.83	375.60	0.58	253.24	0.39			249.75	0.38	127.78	0.20	261.37	0.40	145.21	0.22
Maaloey to Harstad	710	561.85	0.79	393.22	0.55	265.05	0.37			333.00	0.47	170.37	0.24	348.49	0.49	193.61	0.27

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	OW Distance - NM	Passenger Fare-Adult One-Way		Vehicle-Up to 19 Feet Fare				Cabin-Two Berth-Full Facilities									
		Peak		Low		Peak		Low		Inside				Outside			
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
Maaloey to Skjerveoy	844	666.59	0.79	466.59	0.55	314.80	0.37			333.00	0.39	170.37	0.20	348.49	0.41	193.61	0.23
Maaloey to Havoey Sund	967	759.52	0.79	531.64	0.55	350.24	0.36			416.26	0.43	212.97	0.22	435.62	0.45	242.01	0.25
Maaloey to Mehamn	1050	829.61	0.79	580.63	0.55	373.86	0.36			416.26	0.40	212.97	0.20	435.62	0.41	242.01	0.23
Maaloey to Vardoe	1148	915.95	0.80	641.03	0.56	399.99	0.35			499.51	0.44	255.56	0.22	522.74	0.46	290.41	0.25
Torvik to Broennoeysund	360	313.26	0.87	219.16	0.61	146.75	0.41			166.50	0.46	85.19	0.24	174.25	0.48	96.80	0.27
Torvik to Oernes	462	402.12	0.87	281.50	0.61	189.15	0.41			166.50	0.36	85.19	0.18	174.25	0.38	96.80	0.21
Torvik to Svolvaer	576	480.73	0.83	336.49	0.58	224.58	0.39			166.50	0.29	85.19	0.15	174.25	0.30	96.80	0.17
Torvik to Risoeyhamn	644	524.48	0.81	367.08	0.57	245.88	0.38			249.75	0.39	127.78	0.20	261.37	0.41	145.21	0.23
Torvik to Tromsoe	752	590.50	0.79	413.35	0.55	276.66	0.37			249.75	0.33	127.78	0.17	261.37	0.35	145.21	0.19
Torvik to Hammerfest	891	691.76	0.78	484.21	0.54	326.42	0.37			333.00	0.37	170.37	0.19	348.49	0.39	193.61	0.22
Torvik to Kjoellefjord	985	773.46	0.79	541.52	0.55	354.88	0.36			333.00	0.34	170.37	0.17	348.49	0.35	193.61	0.20
Torvik to Kirkenes	1175	926.60	0.79	648.58	0.55	404.64	0.34			416.26	0.35	212.97	0.18	435.62	0.37	242.01	0.21
Molde to Trondheim	139	179.47	1.29	125.65	0.90	85.19	0.61			83.25	0.60	42.59	0.31	87.12	0.63	48.40	0.35
Molde to Roervik	264	241.23	0.91	168.83	0.64	113.45	0.43			83.25	0.32	42.59	0.16	87.12	0.33	48.40	0.18
Molde to Nesna	361	332.04	0.92	232.33	0.64	156.05	0.43			166.50	0.46	85.19	0.24	174.25	0.48	96.80	0.27
Molde to Stamsund	506	450.72	0.89	315.58	0.62	212.97	0.42			166.50	0.33	85.19	0.17	174.25	0.34	96.80	0.19
Molde to Sortland	576	485.37	0.84	339.78	0.59	227.29	0.39			249.75	0.43	127.78	0.22	261.37	0.45	145.21	0.25
Molde to Skjerveoy	755	608.51	0.81	425.94	0.56	290.99	0.39			249.75	0.33	127.78	0.17	261.37	0.35	145.21	0.19

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	OW Distance - NM	Passenger Fare-Adult One-Way		Vehicle-Up to 19 Feet Fare				Cabin-Two Berth-Full Facilities									
								Inside				Outside					
		Peak		Low		Peak		Low		Peak		Low		Peak		Low	
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
Molde to Mehamn	961	758.17	0.79	530.68	0.55	350.24	0.36			333.00	0.35	170.37	0.18	348.49	0.36	193.61	0.20
Molde to Kirkenes	1125	891.37	0.79	624.00	0.55	392.83	0.35			416.26	0.37	212.97	0.19	435.62	0.39	242.01	0.22
Roervik to Sandnessjoen	82	112.29	1.37	78.60	0.96	73.38	0.89			83.25	1.02	42.59	0.52	87.12	1.06	48.40	0.59
Roervik to Nesna	97	131.85	1.36	92.16	0.95	75.70	0.78			83.25	0.86	42.59	0.44	87.12	0.90	48.40	0.50
Roervik to Svolvær	262	275.70	1.05	193.03	0.74	130.30	0.50			83.25	0.32	42.59	0.16	87.12	0.33	48.40	0.18
Roervik to Harstad	357	332.04	0.93	232.33	0.65	156.05	0.44			166.50	0.47	85.19	0.24	174.25	0.49	96.80	0.27
Roervik to Hammerfest	577	502.22	0.87	351.59	0.61	234.46	0.41			249.75	0.43	127.78	0.22	261.37	0.45	145.21	0.25
Roervik to Berlevaag	733	605.02	0.83	423.42	0.58	288.86	0.39			249.75	0.34	127.78	0.17	261.37	0.36	145.21	0.20
Nesna to Bodo	90	116.55	1.30	81.70	0.91	73.38	0.82			83.25	0.93	42.59	0.47	87.12	0.97	48.40	0.54
Nesna to Sortland	215	220.91	1.03	154.69	0.72	103.97	0.48			83.25	0.39	42.59	0.20	87.12	0.41	48.40	0.23
Nesna to Finnsnes	304	280.34	0.92	196.32	0.65	132.43	0.44			83.25	0.27	42.59	0.14	87.12	0.29	48.40	0.16
Nesna to Havoysund	517	450.72	0.87	315.58	0.61	212.97	0.41			166.50	0.32	85.19	0.16	174.25	0.34	96.80	0.19
Nesna to Berlevaag	636	530.87	0.83	371.53	0.58	248.40	0.39			249.75	0.39	127.78	0.20	261.37	0.41	145.21	0.23
Nesna to Vadsoe	740	601.73	0.81	421.29	0.57	286.15	0.39			249.75	0.34	127.78	0.17	261.37	0.35	145.21	0.20
Stamsund to Stokmarknes	55	72.60	1.32	50.73	0.92	70.86	1.29			83.25	1.51	42.59	0.77	87.12	1.58	48.40	0.88
Stamsund to Sortland	70	82.28	1.18	57.50	0.82	70.86	1.01			83.25	1.19	42.59	0.61	87.12	1.24	48.40	0.69
Stamsund to Risoeyhamn	88	105.32	1.20	73.76	0.84	73.38	0.83			83.25	0.95	42.59	0.48	87.12	0.99	48.40	0.55
Stamsund to Tromsø	196	207.93	1.06	145.59	0.74	97.00	0.49			83.25	0.42	42.59	0.22	87.12	0.44	48.40	0.25

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	OW Distance - NM	Passenger Fare-Adult One-Way		Vehicle-Up to 19 Feet Fare				Cabin-Two Berth-Full Facilities									
								Inside				Outside					
		Peak		Low		Peak		Low		Peak		Low		Peak		Low	
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
Samsund to Honningsvaag	400	374.05	0.94	261.76	0.65	175.02	0.44			166.50	0.42	85.19	0.21	174.25	0.44	96.80	0.24
Samsund to Baatsfjord	514	454.40	0.88	318.10	0.62	212.97	0.41			249.75	0.49	127.78	0.25	261.37	0.51	145.21	0.28
Finnsnes to Skjerveoy	90	123.33	1.37	90.22	1.00	75.70	0.84			83.25	0.93	42.59	0.47	87.12	0.97	48.40	0.54
Skjerveoy to Hammerfest	86	98.74	1.15	69.12	0.80	70.86	0.82			83.25	0.97	42.59	0.50	87.12	1.01	48.40	0.56
Oeksfjord to Havøysund	78	99.90	1.28	69.89	0.90	70.86	0.91			83.25	1.07	42.59	0.55	87.12	1.12	48.40	0.62
Moby																	
Livorno to Olbia	167	84.94	0.51	38.95		227.39		93.99		151.80		84.33		173.26		92.00	
Piombino to Olbia	135	82.80	0.61	36.80		224.48		91.08		151.80		84.33		173.26		92.00	
Genoa to Olbia	220	115.15	0.52	55.35		246.25		125.12		167.13		84.33		188.60		92.00	
Genoa to Porto Torres	214	115.15	0.54	55.35	0.26	245.63	1.15	124.50	0.58	167.13	0.78	84.33	0.39	188.60	0.88	92.00	0.43
Civitavecchia to Olbia	124	74.06	0.60	38.79		208.68		87.55		138.00		69.00		161.00		76.67	
Genoa to Bastia	105	60.57	0.58	37.57	0.36	195.65	1.86	94.45	0.90	46.00	0.44	23.00	0.22	46.00	0.44	23.00	0.22
Livorno to Bastia	61	58.11	0.95	35.11	0.58	192.74	3.16	94.45	1.55	46.00	0.75	23.00	0.38	46.00	0.75	23.00	0.38
Piombino to Portoferraio	17	17.94	1.06	13.34		101.35		66.85									
Bonifacio to S.Teresa Di Gallura		27.14		20.24		100.89		46.46									
Irish Ferries																	
Dublin to Holyhead	58	53.67	0.93	53.67	0.93	173.26	2.99	127.26	2.19	70.53	1.22	64.40	1.11	88.93	1.53	82.80	1.43
Rosslare to Pembroke Dock	73	53.67	0.74	53.67	0.74	173.26	2.37	127.26	1.74	70.53	0.97	64.40	0.88	104.26	1.43	98.13	1.34

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	OW Distance - NM	Passenger Fare-Adult One-Way		Vehicle-Up to 19 Feet Fare				Cabin-Two Berth-Full Facilities									
		Peak		Low		Peak		Low		Inside				Outside			
		Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM	Total	Per NM
TT-Line																	
Trelleborg to Rostock	83	46.00	0.55	46.00	0.55	184.00	2.22	161.00	1.94	66.70	0.80	42.93	0.52	72.07	0.87	42.93	0.52
P & O Ferries																	
Larne to Troon	58	116.53	2.01	116.53	2.01	148.73	2.56	148.73	2.56								
Brittany Ferries																	
Portsmouth to Caen	100	96.62	0.97	70.45	0.70	356.28	3.56	251.61	2.52	50.32	0.50	50.32	0.50	60.39	0.60	60.39	0.60
Portsmouth to Cherbourg	76	136.87	1.80	70.45	0.93	205.31	2.70	181.16	2.38	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Poole to Cherbourg	60	136.87	2.28	78.50	1.31	316.02	5.27	183.17	3.05	50.32	0.84	50.32	0.84	60.39	1.01	60.39	1.01
Plymouth to Roscuff	99	136.87	1.38	70.45	0.71	326.08	3.29	171.09	1.73	130.84	1.32	50.32	0.51	150.96	1.52	60.39	0.61
BC Ferries																	
Bella Bella to Shearwater	1.5	10.36	6.91														
Victoria to Vancouver	74	13.14	0.18	13.14	0.18	43.47	0.59	43.47	0.59	25.27	0.34	25.27					
Port Hardy to Prince Rupert	274	126.35	0.46	105.33	0.38	337.72	1.23										
Prince Rupert to Bella Bella	173	76.82	0.44	191.15	1.10	173.00	1.00										
Port Hardy to Bella Coola	135	144.85	1.07														
Prince Rupert to Skidegate	93	33.31	0.36	27.75	0.30	122.97	1.32	102.75	1.10	60.65	0.65		0.00				

C. Airline Rate Table

Table 14. Airline Rates.

Carrier	Route	Sailing Dist Distance, OW - NM	Passenger Fare - Adult, OW		Passenger Fare - Adult, OW		Flying Distance
			Advance Purchase		Late Purchase		
			Total	Per NM	Total	Per NM	
Alaska Air	SEA to YYJ	72	120.69	1.68	152.94	2.12	74.00
Alaska Air	YYJ to SEA	72	103.89	1.44	182.67	2.54	74.00
Alaska Air	ANC - BET		145.00	0.37	289.00	0.73	397.00
Alaska Air	ANC - DLG		232.00	0.74	286.00	0.91	313.00
Alaska Air	FAI - SCC		254.50	0.67	326.50	0.86	381.00
Alaska Air	FAI - CDV		211.00	0.50	306.50	0.73	418.00
Alaska Air	YAK to JNU	226	157.50	0.70	203.50	0.90	188.00
Alaska Air	JNU to YAK	226	157.50	0.70	203.50	0.90	188.00
Alaska Air	BLI to JNU	830	353.20	0.43	473.20	0.57	1714.00
Alaska Air	BLI to KTN	595	313.20	0.53	433.20	0.73	1883.00
Alaska Air	BLI to SIT	823	353.20	0.43	473.20	0.57	1714.00
Alaska Air	BLI to WRG	684	353.20	0.52	473.20	0.69	1829.00
Alaska Air	BLI to PSG	707	353.20	0.50	473.20	0.67	1799.00
Alaska Air	KTN to JNU	235	169.00	0.72	218.00	0.93	200.00
Alaska Air	KTN to SIT	224	162.00	0.72	218.00	0.97	169.00
Alaska Air	KTN to WRG	89	123.50	1.39	166.50	1.87	64.00
Alaska Air	KTN to PSG	112	143.50	1.28	180.50	1.61	95.00
Alaska Air	WRG to JNU	164	143.50	0.88	180.50	1.10	136.00
Alaska Air	WRG to SIT	197	156.00	0.79	193.00	0.98	117.00
Alaska Air	WRG to PSG	41	123.50	3.01	140.50	3.43	32.00
Alaska Air	SIT to PSG	156	271.50	1.74	351.50	2.25	89.00
Alaska Air	JNU to PSG	123	143.50	1.17	180.50	1.47	105.00
Alaska Air	JNU to SIT	132	128.00	0.97	171.00	1.30	82.00
Alaska Air	JNU to BLI	830	353.20	0.43	473.20	0.57	1714.00
Alaska Air	KTN to BLI	595	313.20	0.53	433.20	0.73	1883.00
Alaska Air	SIT to BLI	823	353.20	0.43	473.20	0.57	1714.00
Alaska Air	WRG to BLI	684	348.70	0.51	468.70	0.69	1829.00
Alaska Air	PSG to BLI	707	348.70	0.49	468.70	0.66	1799.00
Alaska Air	JNU to KTN	235	169.00	0.72	218.00	0.93	200.00
Alaska Air	SIT to KTN	228	162.00	0.71	218.00	0.96	169.00
Alaska Air	WRG to KTN	89	123.50	1.39	166.50	1.87	64.00
Alaska Air	PSG to KTN	112	143.50	1.28	180.50	1.61	95.00
Alaska Air	JNU to WRG	164	143.50	0.88	180.50	1.10	136.00
Alaska Air	SIT to WRG	197	156.00	0.79	193.00	0.98	117.00
Alaska Air	PSG to WRG	41	123.50	3.01	140.50	3.43	32.00

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Carrier	Route	Sailing Dist Distance, OW - NM	Passenger Fare - Adult, OW		Passenger Fare - Adult, OW		Flying Distance
			Advance Purchase		Late Purchase		
			Total	Per NM	Total	Per NM	
Alaska Air	PSG to SIT	156	271.50	1.74	351.50	2.25	89.00
Alaska Air	PSG to JNU	123	143.50	1.17	180.50	1.47	105.00
Alaska Air	SIT to JNU	132	128.00	0.97	171.00	1.30	82.00
Wings of Alaska	JNU to HNS	68	98.00	1.44	98.00	1.44	65.00
Wings of Alaska	JNU to HNH	48	63.00	1.31	63.00	1.31	44.00
Wings of Alaska	JNU to SGY	81	106.00	1.31	106.00	1.31	78.00
Wings of Alaska	HNS to SGY	13	54.00	4.15	54.00	4.15	17.00
LAB Flying Service	JNU to HNS	68	98.00	1.44	98.00	1.44	65.00
LAB Flying Service	JNU to SGY	81	111.00	1.37	111.00	1.37	78.00
LAB Flying Service	JNU to GST	82	65.00	0.79	65.00	0.79	53.00
LAB Flying Service	JNU to KAE	114	145.00	1.27	145.00	1.27	85.00
LAB Flying Service	JNU to HNH	48	59.00	1.23	59.00	1.23	44.00
LAB Flying Service	HNS to SGY	13	56.00	4.31	56.00	4.31	17.00
LAB Flying Service	GST to HNS	96	186.00	1.94	186.00	1.94	51.00
LAB Flying Service	SGY to GST	106	204.00	1.92	204.00	1.92	69.00
LAB Flying Service	HNS to HNH	116	460.00	3.97	460.00	3.97	68.00
LAB Flying Service	HNS to HNH	116	575.00	4.96	575.00	4.96	68.00
Pen Air	AKU to UNA	45	110.00	2.44	110.00	2.44	29.00
Pen Air	UNA to AKU	25	110.00	4.40	110.00	4.40	29.00
Pen Air	CDY to KCV	45	83.00	1.84	83.00	1.84	18.00
Pen Air	KCV to CDY	25	83.00	3.32	83.00	3.32	18.00
Pen Air	CDY to FPS	38	121.00	3.18	121.00	3.18	33.00
Pen Air	ANC to SDP	554	394.00	0.71	425.00	0.77	501.00
Era Aviation	ADQ to HOM	136	306.00	2.25	366.00	2.69	114.00
Era Aviation	HOM to ADQ	136	276.00	2.03	366.00	2.69	114.00
Era Aviation	HOM to VAL	465	200.00	0.43	271.00	0.58	176.00
Era Aviation	VAL to HOM	465	200.00	0.43	271.00	0.58	178.00
Era Aviation	VAL to ADQ	329	277.00	0.84	367.00	1.12	272.00
Era Aviation	ADQ to VAL	329	277.00	0.84	367.00	1.12	272.00
Era Aviation	CDV to ADQ	329	250.00	0.76	354.00	1.08	264.00

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Carrier	Route	Sailing Dist Distance, OW - NM	Passenger Fare - Adult, OW		Passenger Fare - Adult, OW		Flying Distance
			Advance Purchase		Late Purchase		
			Total	Per NM	Total	Per NM	
Era Aviation	ADQ to CDV	329	250.00	0.76	354.00	1.08	264.00
Homer Air	HOM to SDV	17	42.00	2.47	42.00	2.47	13.00
Homer Air	SDV to HOM	17	42.00	2.47	42.00	2.47	13.00
Smokey Bay Air Taxi	HOM to SDV	17	39.52	2.32	39.52	2.32	13.00
Smokey Bay Air Taxi	SDV to HOM	17	39.52	2.32	39.52	2.32	13.00
M/V Rainbow Connection	HOM to SDV	17	20	1.18	20	1.18	13.00
M/V Rainbow Connection	SDV to HOM	17	20	1.18	20	1.18	13.00
Pen Air - Era	UNA to ADQ	747	557	0.75	637	0.85	530.00

D. Commercial Van Rate Table

Table 15. AMHS Fare, Per 40-Foot Van/Container, Per Nautical Mile, Sorted by Distance

Route	Distance	Van Rate	Van Fare/NM
Skagway to Haines	13	132	10.15
Seldovia to Homer	17	136	8.00
Cold Bay to King Cove	25	160	6.40
Petersburg to Wrangell	41	164	4.00
Juneau to Hoonah	48	180	3.75
Port Lions to Kodiak	48	184	3.83
False Pass to Cold Bay	58	184	3.17
Angoon to Kake	60	284	4.73
Hoonah to Angoon	63	188	2.98
Pelican to Hoonah	64	220	3.44
Kake to Petersburg	65	208	3.20
Angoon to Sitka	67	200	2.99
Whittier to Chenega Bay	67	516	7.70
Haines to Juneau	68	228	3.35
Cordova to Valdez	74	300	4.05
Whittier to Valdez	78	332	4.26
Juneau to Angoon	78	224	2.87
Skagway to Juneau	81	308	3.80
False Pass to King Cove	83	344	4.14
Chenega Bay to Valdez	87	516	5.93
Wrangell to Ketchikan	89	244	2.74
Pelican to Juneau	91	332	3.65
Ketchikan to Prince Rupert	91	312	3.43
Chenega Bay to Cordova	97	516	5.32
King Cove to Sand Point	98	316	3.22
Angoon to Petersburg	100	412	4.12
Dutch Harbor to False Pass	103	496	4.82
Kake to Wrangell	106	332	3.13
Petersburg to Ketchikan	112	388	3.46
Juneau to Kake	114	472	4.14
Sitka to Kake	115	228	1.98
Hoonah to Kake	116	392	3.38
Haines to Hoonah	116	388	3.34
Hoonah to Sitka	118	228	1.93
Juneau to Petersburg	123	472	3.84
Cold Bay to Sand Point	123	440	3.58
Skagway to Hoonah	129	472	3.66
Juneau to Sitka	132	252	1.91

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	Distance	Van Rate	Van Fare/NM
Homer to Port Lions	134	504	3.76
Homer to Kodiak	136	504	3.71
Sand Point to Chignik	138	440	3.19
Haines to Angoon	146	424	2.90
Seldovia to Port Lions	151	552	3.66
Seldovia to Kodiak	153	552	3.61
Sitka to Petersburg	156	252	1.62
Pelican to Haines	159	540	3.40
Skagway to Angoon	159	508	3.19
Juneau to Wrangell	164	600	3.66
Angoon to Wrangell	166	552	3.33
Pelican to Angoon	169	388	2.30
Pelican to Skagway	172	632	3.67
Kake to Ketchikan	177	516	2.92
Wrangell to Prince Rupert	180	500	2.78
Hoonah to Petersburg	181	472	2.61
False Pass to Sand Point	181	620	3.43
Haines to Kake	182	668	3.67
Skagway to Kake	183	744	4.07
Haines to Petersburg	191	668	3.50
Sitka to Wrangell	197	388	1.97
Haines to Sitka	200	444	2.22
Petersburg to Prince Rupert	203	624	3.07
Skagway to Petersburg	204	744	3.65
Pelican to Kake	205	544	2.65
Angoon to Ketchikan	212	744	3.51
Skagway to Sitka	213	536	2.52
Pelican to Petersburg	214	696	3.25
Hoonah to Wrangell	222	600	2.70
Pelican to Sitka	223	412	1.85
Sitka to Ketchikan	224	576	2.57
Yakutat to Juneau	226	624	2.76
Haines to Wrangell	232	788	3.40
Juneau to Ketchikan	235	796	3.39
King Cove to Chignik	236	724	3.07
Dutch Harbor to Cold Bay	237	4024	16.98
Skagway to Wrangell	245	888	3.62
Chignik to Kodiak	249	856	3.44
Pelican to Wrangell	255	844	3.31
Cold Bay to Chignik	261	856	3.28
Dutch Harbor to King Cove	262	788	3.01
Port Lions to Whittier	264	636	2.41
Kodiak to Whittier	266	636	2.39
Kake to Prince Rupert	268	748	2.79

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	Distance	Van Rate	Van Fare/NM
Port Lions to Valdez	286	1080	3.78
Kodiak to Valdez	288	1080	3.75
Hoonah to Ketchikan	293	796	2.72
Port Lions to Cordova	296	1080	3.65
Chignik to Port Lions	297	856	2.88
Kodiak to Cordova	298	1080	3.62
Angoon to Prince Rupert	303	1052	3.47
Haines to Ketchikan	303	996	3.29
Skagway to Ketchikan	316	1080	3.42
Sitka to Prince Rupert	319	808	2.53
False Pass to Chignik	319	1032	3.24
Haines to Prince Rupert	326	1184	3.63
Juneau to Prince Rupert	326	1008	3.09
Pelican to Ketchikan	326	1048	3.21
Dutch Harbor to Sand Point	360	1088	3.02
Hoonah to Prince Rupert	384	1120	2.92
Chignik to Homer	385	1316	3.42
Sand Point to Kodiak	387	1256	3.25
Homer to Whittier	402	1168	2.91
Chignik to Seldovia	402	1344	3.34
Skagway to Prince Rupert	407	1260	3.10
Pelican to Prince Rupert	417	1368	3.28
Seldovia to Whittier	419	1272	3.04
Sand Point to Port Lions	435	1256	2.89
Seldovia to Valdez	441	1616	3.66
King Cove to Kodiak	485	1532	3.16
Dutch Harbor to Chignik	498	1492	3.00
Cold Bay to Kodiak	510	1660	3.25
Homer to Cordova	514	1556	3.03
Sand Point to Homer	523	1720	3.29
King Cove to Port Lions	533	1532	2.87
Sand Point to Seldovia	540	1768	3.27
Cold Bay to Port Lions	558	1660	2.97
False Pass to Kodiak	568	1844	3.25
Ketchikan to Bellingham	595	1728	2.90
False Pass to Port Lions	616	1844	2.99
King Cove to Homer	621	2004	3.23
King Cove to Seldovia	638	2044	3.20
Cold Bay to Homer	646	2132	3.30
Cold Bay to Seldovia	663	2176	3.28
Wrangell to Bellingham	684	1936	2.83
False Pass to Homer	704	2312	3.28
Petersburg to Bellingham	707	2076	2.94
False Pass to Seldovia	721	2360	3.27

Passenger/Vehicle/Cabin Rate Study for the Alaska Marine Highway System

Route	Distance	Van Rate	Van Fare/NM
Dutch Harbor to Kodiak	747	2300	3.08
Kake to Bellingham	772	2208	2.86
Dutch Harbor to Port Lions	795	2300	2.89
Angoon to Bellingham	807	2420	3.00
Sitka to Bellingham	823	2272	2.76
Juneau to Bellingham	830	2484	2.99
Hoonah to Bellingham	870	2484	2.86
Dutch Harbor to Homer	883	2764	3.13
Haines to Bellingham	898	2688	2.99
Dutch Harbor to Seldovia	900	2816	3.13
Skagway to Bellingham	911	2764	3.03
Pelican to Bellingham	921	2728	2.96

E. Route Structure Comparison

The analysis presented in this report is based on 181 route segments as requested in the scope of work. Some of the route segments that were analyzed are not presently active. For example, route segments between Seward and several communities were included in the data set provided by AMHS but there is no service to or from Seward since the Tustumena was relocated to Homer. In addition, there were a number of direct routes between ports that are not active. Instead, the service may now be part of a multi-port trip that calls on one or more communities before reaching the port that used to be on a direct sailing. A multi-port trip will result in greater distances between ports and affect the fares per mile.

The following charts compare the fares for each class of service using the distance for the route segments as requested in the scope of work, with the actual route distance using the current route structure. These charts are provided for information only since an analysis of the actual route structure was not included in the scope of work but Northern Economics felt that AMHS should be aware of the effect that selection of the route structure has on fares per mile.

Figure 1. Fares per Nautical Mile, Adult Passenger Fares by Distance

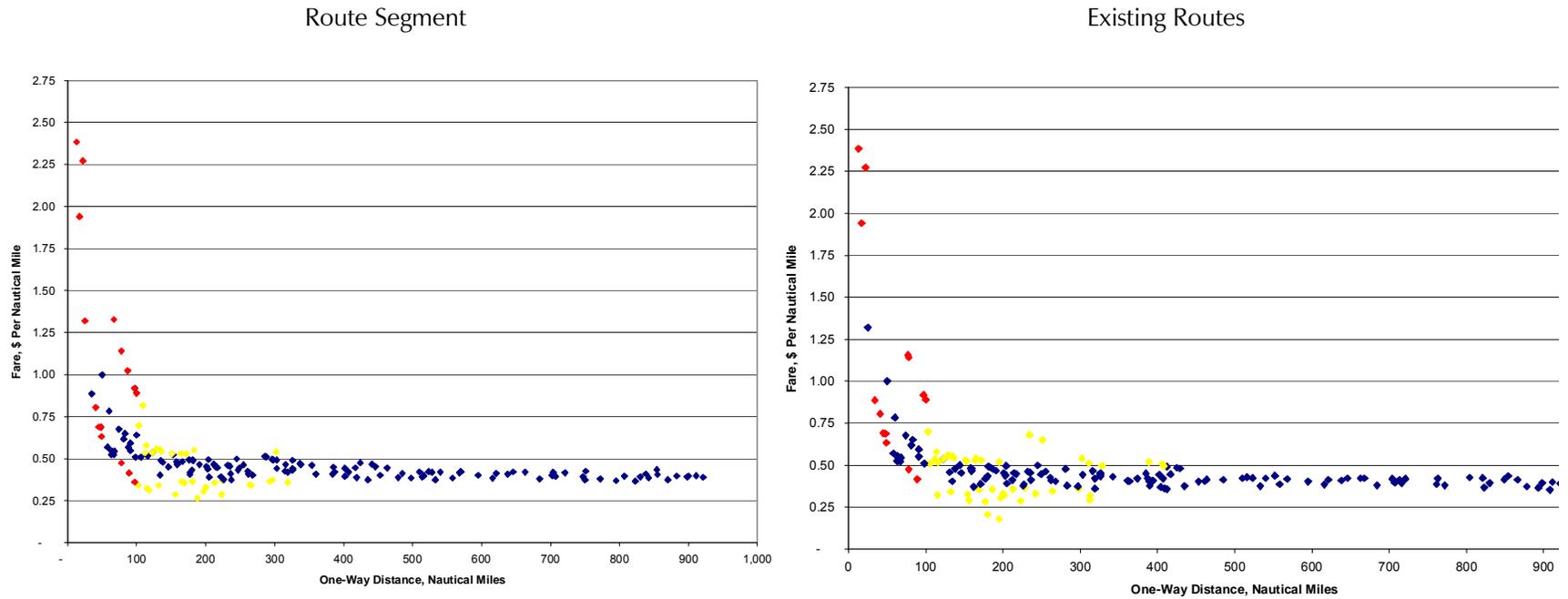


Figure 2. Fares per Nautical Mile, Vehicles to 19 Feet

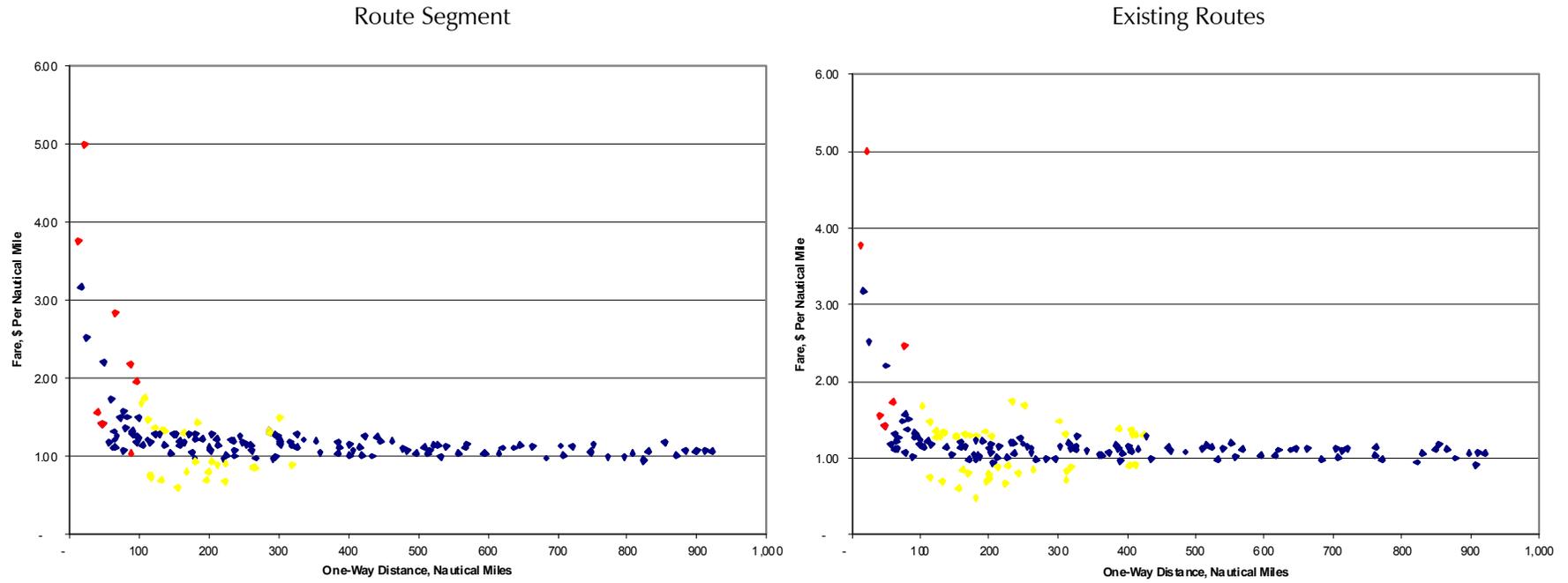


Figure 4. Fares per Nautical Mile, Two-Berth Cabins, Inside, with full facilities

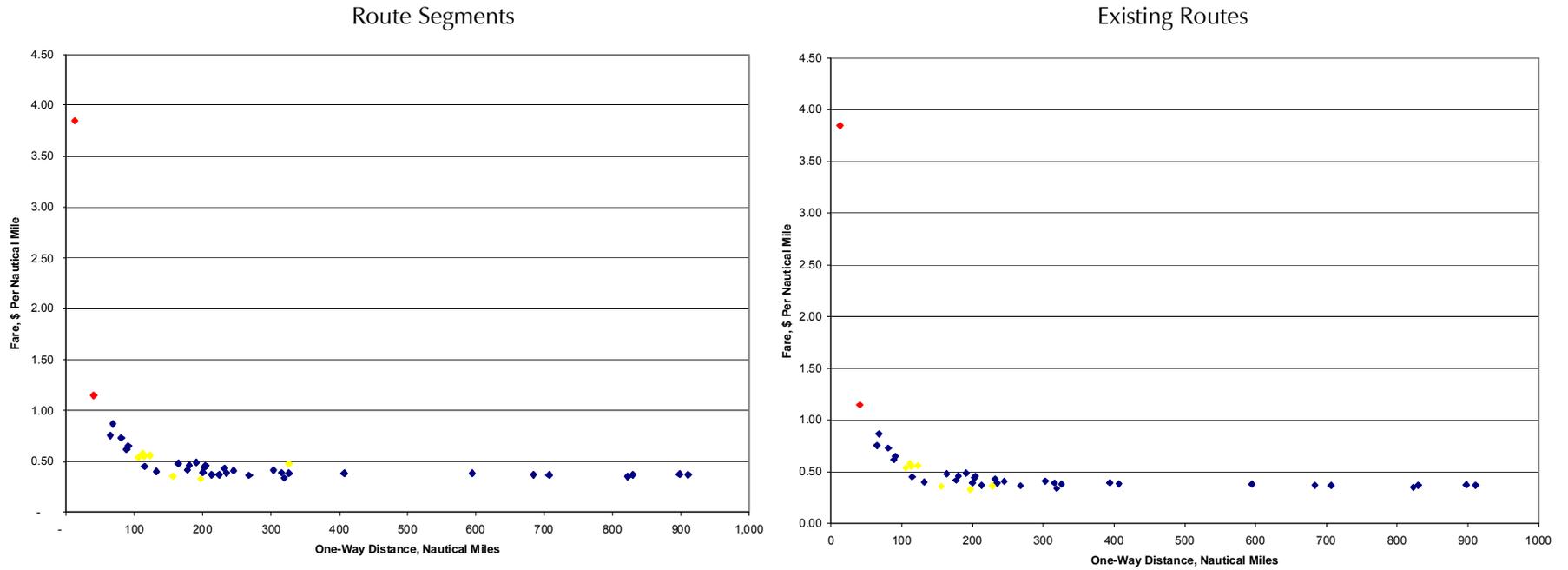


Figure 5. Fares per Nautical Mile, 40-Foot Vans

