

Addendum to Appendix H

Socioeconomic Effects Technical Report

OCTOBER 2005

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ERRATA SHEET

OCTOBER 2004 SOCIOECONOMIC EFFECTS TECHNICAL REPORT

1. Section 2.3.1.3, page 67, first full paragraph, last line. Reference should read “Gummow, 2003” rather than “Grummow, 2003”. Also on second full paragraph, fourth line.
2. Section 3.1.3.2, Page 105, last paragraph. Insert “2003” prior to *Juneau Access Household Survey*.
3. Section 3.1.3.3, Page 114, last paragraph. Insert “2003” prior to *Juneau Access Household Survey*.
4. Section 3.1.3.4, Page 120, last paragraph. Alternative 2C should read Alternative 2B and Alternative 2 should read Alternative 2C.
5. Section 3.1.7.1, Page 145, Table 32. Total Ferry Traffic (AADT) for 4B should read 170 rather than 165.
6. Section 3.1.7.4, Page 148 (“Effects of Haines Population”). Last line should read “...have a minor impact (approximately 30 new residents) on population.”
7. Section 3.1.7.4, Page 148, last paragraph, fifth line. “...therefore no reduction in business profit or the cost of living...” should read “...therefore no increase in business profit of reduction in the cost of living...”
8. Section 3.1.7.4, Page 149, first paragraph, fourth line. “...Haines (70 AADT)...” should read “...Skagway (80 AADT)...”
9. Section 3.2.4.3, Page 153, second paragraph, third line. “...which is expected to range between 8 and 10 percent...” should read “...which would be approximately 6 percent...”
10. Section 3.3.1.3, page 158, third full paragraph, last line. Reference should read “Gummow, 2003” rather than “Grummow, 2003”.

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1.0 EFFECTS OF ACCESS IMPROVEMENT

1.1 Ground Transportation Services

Concern has been expressed about how Lynn Canal travelers who are now walk-on ferry passengers would travel between Juneau and Haines/Skagway if a highway is constructed and ferry service discontinued. The following analysis is intended as a supplement to Section 3.1.1.2 “General Effects of the Improved Access on the Transportation Industry,” presented in the 2004 *Socioeconomic Effects Technical Report*.

As a preface to addressing the question about bus service, it is important to recognize that cost is a key reason people choose to travel as walk-ons. As demonstrated in the 2004 *Traffic Forecast Report*, personal travel vehicle cost would be significantly reduced in Lynn Canal with a highway. The 2004 round-trip cost for a car and driver on the ferry from Juneau to Haines was approximately \$265 (vehicle up to 19 feet) and from Juneau to Skagway, approximately \$300². The total cost to make the same Juneau-Haines-Juneau round-trip under alternative 2B would be approximately \$100 based on *total* vehicle operating and ownership costs of \$0.44/mile³ and shuttle ferry costs of \$3.85 per person and \$9.70 per vehicle one way. Juneau-Skagway-Juneau round-trip costs would total about \$110 for car and driver for Alternative 2B. Actual out-of-pocket expenses, for fuel and shuttle ferry fares would account for about 60 percent of these total costs. Further, under Alternative 2B the highway travel cost of each additional passenger in a personal vehicle is zero, with additional ferry passenger costs of about \$7.70 per person round-trip, Juneau-Haines-Juneau, for example. Meanwhile each additional passenger using the existing ferry service must pay the \$70 round-trip passenger fare for Juneau-Haines-Juneau travel. This means that many walk-ons would choose to drive their own vehicle (or travel with friends) rather than not travel or seek transportation services from the private sector.

As additional background information, it should be noted that 92.6 percent of Juneau households own at least one vehicle, while 7.4 percent (859 households) do not own a vehicle, according to the 2000 Census. More specifically, 37.1 percent of Juneau households own one vehicle, 40.5 percent own two, and 15.0 percent own three or more vehicles. The numbers are very similar for the Haines Borough, with 8.1 percent of households with no vehicles, 37.5 percent with one vehicle, 40.7 percent with two, and 13.7 percent have three or more vehicles. In Skagway, 8.2 percent have none, 31.3 percent have one, 42.7 percent have two, and 17.9 percent have three or more vehicles.

Whether owning a car or not, some of the existing Alaska Marine Highway System (AMHS) walk-on market would prefer or require some form of transportation service between Juneau and Haines/Skagway. Further, some of the traffic induced by the highway might also occasionally prefer to travel by bus or van, depending on the cost and frequency of service.

To predict what type of bus service might develop if highway access were available, we first estimated the potential market size for such service. We also interviewed a number of bus operators from around the region to gauge their response, in terms of service levels, to this particular market opportunity. We also collected information on bus services from elsewhere in

² AMHS Lynn Canal fares vary depending on the vessel. Fast vehicle ferry (FVF) fares are 10 percent higher than mainline fares.

³ Based on 2003 vehicle operating costs. Fuel prices in 2005 are approximately 30 percent higher than in 2003. At today's gas price, total vehicle operating and ownership costs would be three to four cents per mile higher than in 2003.

the region and Alaska. Finally, we prepared a summary assessment of the nature of bus service likely to develop if a highway link is constructed between Juneau and Skagway.

1.1.1 Market size

Approximately 49,000 passengers and 13,600 vehicles traveled Lynn Canal northbound from Juneau to Haines or Skagway, with about the same volume moving southbound via the ferry in 2004. The average number of passengers per vehicle on highways in the Lynn Canal corridor is approximately 2.3. Assuming the same number of passengers per vehicle on the ferry, approximately 31,000 passengers on the ferry traveled with a vehicle. Walk-on traffic is estimated to be approximately 18,000 people, one way (calculated by subtracting the 31,000 passengers who traveled with a vehicle from the total number of passengers.) The seasonal distribution of passenger volumes was assumed to be 70 percent in the summer and 30 percent in the winter.

The percentage of baseline AMHS walk-on traffic that would choose to travel in their own vehicle, if a highway were in place, would depend on a number of factors, such as the cost, frequency and convenience of a bus or van service. On the other hand, the cost, frequency and convenience of a bus or van service will depend on the size of the market. Following completion of highway construction, there would be a period of transition as entrepreneurs, or established bus/van service providers, test the market by offering some moderate level of service, such as one or two round-trips daily between communities during the summer (allowing Haines residents to take day-trips to Juneau, for example, or Juneau visitors to travel to Skagway and back in a day).

For purposes of this analysis it was estimated that the initial size of the market for bus service might be between 9,000 and 18,000 annual north-bound and south-bound travelers if a bus service was available and reasonably affordable. This is equivalent to between 25 and 50 percent of 2004 walk-on ferry traffic. This is not a measure of the number of travelers who would be unable to make a trip in the absence of ferry service. It is an estimate of the number of travelers that would choose to use a bus service if it were available and reasonably affordable. It includes travelers that do not own a vehicle (estimated at approximately 8 to 10 percent of the overall market – about 9,000 travelers – which is slightly above the regional ownership average of 7 to 8 percent, to account for non-residents traveling without vehicles). It also includes the potential for an equal number of travelers (up to as many as 9,000 travelers) that would choose bus service, rather than take their own car, because it is more convenient.

Based on the estimate that this market is split roughly 70 percent into a 150-day summer season and 30 percent into a 215-day winter season, peak summer passenger traffic would be between 40 and 85 passengers per day (split equally northbound and southbound). Winter traffic would be between 12 and 25 passengers daily.

1.1.2 Case studies

Commercial passenger bus/van services available elsewhere in Alaska were examined as case studies to support the determination of what type of passenger service might be offered between Juneau and communities to the north. While market size and characteristics may be different, these case studies provide a general indication of the cost and frequency of bus service that is likely to be available.

The Alaska Park Connection offers regular bus service between Seward and Denali National Park, with a stop in Anchorage. The 127-mile Seward/Anchorage trip costs \$49 per person, one-way (OW). In the summer, two trips are offered daily, with 10:45 AM and 6:00 PM departures from Seward and 7:00 AM and 3:00 PM departures from Anchorage. The trip is approximately 3 hours in duration.⁴ The service appears to be targeted primarily at the visitor market, but does also serve residents. Service is offered May 20 through September 12. Alaska Park Connection operates full-size and 25-passenger coaches.

Homer Stage Lines offers bus service between Homer and Soldotna (78 miles, \$30 OW, \$50 round trip [RT]), Homer and Kenai (89 miles, \$35 OW, \$60 RT), Homer and Seward (173 miles, \$45 OW, \$85 RT) as well as other areas of the Kenai Peninsula. Homer Stage Lines also offers bus service between Homer and Anchorage (224 miles, \$55 OW, \$100 RT). At least daily service is available in the summer. Service frequency is reduced in winter to a couple trips per week.⁵

Alaska Trails offers summer bus service between Anchorage, Wasilla, and Talkeetna, with continuing service to Healy. The 50-minute trip from Anchorage to Wasilla (49 miles) costs \$30 OW or \$44 RT. A one-way ticket for travel between Anchorage and Talkeetna is \$44, and round-trip travel is \$74. Alaska Trails also offers bus service between Fairbanks and Delta Junction (\$40 OW for the 2 hour, 15 minute trip, \$64 RT). Service between Fairbanks and Tok (206 miles) is \$64 OW and \$114 RT.⁶ The drive from Fairbanks to Tok is approximately four hours.

Alaska Direct Bus Lines offers summer bus service between Fairbanks and Whitehorse three times weekly, with stops in Delta Junction (\$25 OW) and Tok (\$45 OW). The Fairbanks/Whitehorse fare is \$140 OW. Alaska Direct also offers service from Skagway, as ferry traffic-related demand warrants.

Yukon Alaska Tourist Tours provides motorcoach service between Skagway and Whitehorse three times daily during the summer (May 10 to September 15.) A one-way ticket is \$30 while a round-trip ticket is \$50.⁷ The trip is 108 miles one-way.

A literature search was conducted to find information on private sector transportation providers' response to new transportation linkages; however, very little relevant information was identified in the literature. Sources included United States Department of Agriculture (USDA) Rural Information Center, USDA Economic Research Center, the Bureau of Transportation Statistics' National Transportation Library, the Federal Highway Administration (FHWA), US Department of Health and Human Services Rural Assistance Center, and the American Association of State Highway and Transportation Officials (AASHTO).

1.1.3 Operator interviews

Interviews were conducted with 12 land transportation service providers in Juneau, Skagway, Anchorage, and other Alaska communities to determine whether the assumed summer and winter volumes would be sufficient to justify offering service.

⁴ <http://www.alaskaone.com/connect/schedule.htm#rates>

⁵ <http://homerstageline.com/>

⁶ <http://www.alaskaone.com/phe/route01.htm>

⁷ <http://www.yukonalaskatouristtours.com/dailybustours.html>

In summary, the potential Lynn Canal bus market is definitely of interest to the private sector. All but one of the operators interviewed said the market would be of interest to them or would have good potential. Schedules and fares would depend on the volume of users and the demand distribution through the day, month and year. Fares will also depend on whether the provider offers scheduled or charter service on a reservation-only basis, and whether the provider offers a tour component (stops for sightseeing) or whether the route is a direct transportation-only service.

Scheduling would be a significant challenge for bus service operators. The bus service needs of local Juneau, Haines and Skagway residents are likely to be different, in terms of schedule, than travelers arriving on the ferry or traveling to Juneau to meet a ferry. The seasonality of demand would also present a scheduling challenge, with significant variations in demand even within the summer season. Demand would peak in June, July and August, and would likely be at a low-point in January and February. Several operators noted that off-season scheduled service could be difficult to develop based on the estimated winter volume, though charter service for groups (for example, school activities) would be available.

1.1.4 Summary

While there would likely be some period of adjustment to market conditions, the study team believes that, with highway access, daily summer coach service would link the communities of Juneau, Haines, Skagway, and probably Whitehorse. Winter service would be less frequent, with bus service offered perhaps every other day to Haines/Skogway. Cost would ultimately depend on the size of the market (which would be a key factor in determining the number of competitors in the market), but would likely be in the range of \$35 to \$50 one-way (Juneau/Skogway). This would place the cost roughly equal to the current AMHS adult passenger fare of \$44 for the Juneau/Skogway link. Service to Whitehorse could be about double the Juneau/Skogway fare.

There is uncertainty in the estimates of the size of the Lynn Canal bus passenger market. But the potential market is large, including 33,000 residents in Juneau, Haines and Skagway, 20,000 residents in Whitehorse, 100,000 to 150,000 independent visitors to Northern Southeast, and an equally large number of independent visitors to the Yukon. As has occurred elsewhere in Alaska, the private sector can be expected to respond aggressively to this market potential.

1.2 Air Taxi Operations

The effects of improved access on air taxi operations is considered in section 3.1.1.2, General Effects of Improved Access on the Transportation Industry in the 2004 *Socioeconomic Effects Technical Report*. The following narrative supplements that analysis.

The 2004 technical report estimated that between 10 percent and 40 percent of air taxi traffic in Lynn Canal would be diverted to surface transportation, if surface transportation is improved, depending on the alternative. This range is encompassed by Alternative 4C (10 percent decline in air taxi traffic) and Alternative 2B (40 percent decline in air taxi traffic).

The economic impact of this potential decline in air traffic includes the loss of jobs and loss of air taxi business sales. In 2003, the three primary air taxi operations serving Lynn Canal employed an annual average of 118 workers (this includes LAB, Wings of Alaska, and Skagway Air). The dependence of these three carriers on Lynn Canal traffic ranges from approximately 40 percent

to 85 percent of total revenues. Based on these percentages, air taxi employment in the Lynn Canal market averaged 54 jobs in 2003 (this is a weighted average based on each carrier's employment and dependence on Lynn Canal).

If 10 percent of air traffic is diverted to surface transportation, and if it is assumed that the result is a 10 percent decline in employment, the employment loss would total approximately five to six jobs. Lost payroll would total between \$160,000 and \$190,000 annually, based on an average Juneau air transportation sector monthly wage of \$2,687 (as reported by the Alaska Department of Labor and Workforce Development [DOL&WD] for 2003).

If 40 percent of air traffic is diverted to surface transportation, and if it is assumed that the result is a 40 percent decline in Lynn Canal air taxi employment, the employment loss would total approximately 22 jobs, along with approximately \$700,000 in annual payroll.

The impact of improved access on air taxi revenues can also be approximated, though no secondary data is available on carrier revenues, either in the Lynn Canal market or for the sector overall. The Lynn Canal air taxi market, which included approximately 27,000 travelers between Juneau and Haines/Skagway and another 1,300 between Haines and Skagway, likely accounted for approximately \$2.5 million in total gross revenues in 2003. A 10 percent reduction in the market would result in a quarter million dollar loss to carriers. A 40 percent decline in the market would cost carriers approximately \$1 million in sales.

Some of the loss in air carrier employment and sales could be offset by commercial ground transportation services that would develop if a highway linking Juneau and Northern Lynn Canal were constructed. Further, the decline in air taxi employment and sales does not necessarily represent a net loss to the region's economy. Lower transportation costs will provide a savings to travelers. Juneau, Haines and Skagway residents comprise approximately 60 percent of the Lynn Canal air taxi market. Money saved by residents through lower-cost transportation is likely to be spent in the local economy on other goods or services. Similarly, lower-cost transportation for non-resident visitors would also free up money for local spending on other goods and services (which could generate new employment in those sectors where additional spending occurs).

The impact of improved surface access could include a reduction in the frequency of air service in Lynn Canal. Service frequency could decline, though not necessarily, at about the same rate as traffic overall, that is, from 10 percent (Alternative 4C) to 40 percent (Alternative 2B). Carriers could reduce the number of flights and/or use smaller-capacity aircraft to adjust to the reduced demand for service. With a shift to smaller aircraft, service frequency may not decline.

A reduction in the demand for Lynn Canal air taxi service could affect airfares. With some reduction in economy-of-scale, the per-traveler cost to provide air taxi service in Lynn Canal could increase. Carriers may pass this increase in cost on to their customers.

It is not the case, as is asserted by some commenters, that travelers would be forced to use air taxi service on those days when the road is closed. When the road is closed, the Haines/Skagway shuttle ferry would be available to provide service to and from Juneau.

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