

Draft Appendix A: AMHS Volume and Revenue for each Route Group

Prepared for

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1 Introduction

This appendix includes detailed summaries of the existing conditions within each of the route groups, as defined within the AMHS Reshaping Study. The route groups that are defined for purposes of this analysis, along with the primary vessel or vessels used in that route group are shown in Table 1 below.

The analysis uses ten years of ticket and sailing data provided by DOT&PF (2019) from July 2008 through June 2019 (i.e. for FY 2009 through FY 2018) to construct the tables and figures summarizing revenues and volumes which start on page 2. Each route group includes a series of tables to represent AMHS existing conditions for three primary revenue sources: passengers service, car deck service (which includes pets and non-motorized vehicles), and cabin service. In most cases tables include a percentage comparison of FY 2018 as a percentage of FY 2009. There is nothing particularly significant about these two years except that they are earliest and latest data used in the assessment.

Additionally, this appendix provides tables and figures that illustrate portions of AMHS traffic derived from local versus non-local ticket buyers where these data are available (FY 2009 through April of 2016). Since the transition to a new AMHS ticketing system in May of 2016, the residency of ticket purchasers has not been available. Within this appendix, local ticket buyers are defined as residents of either the departure or arrival city for any given sailing between two cities and are identified by the zip code provided when the AMHS fares were purchased. Local revenues are compared to revenue derived from residents of other places in Alaska, as well as ticket buyers residing outside of Alaska.

Table 1. Route Group Definitions and the Vessels and AMHS Ports they Comprise

Long Name (Short)	Primary Vessels	Communities in the Route Group (with 3-letter Port Code)
Lynn Canal	<i>LeConte, Tazlina, and Mainline</i> vessels	Juneau (JNU), Haines (NHS), Skagway (SGY). See also the text below regarding travel to/from Haines and Skagway involving ports other than Juneau.
Mainline	<i>Columbia, Malaspina, Matanuska</i>	Juneau (JNU), Sitka (SIT), Kake (KAE), Petersburg (PSG), Wrangell (WRG), Ketchikan (KTN), Prince Rupert (YPR), Bellingham (BEL). Please note that Mainline ferries also provide service into Haines and Skagway. Passengers and vehicles moving to/from Haines and Skagway to Mainline communities other than Juneau are considered part of the Mainline traffic and revenues.
Southeast Feeder (SE Feeder)	<i>LeConte</i> with occasional service from Mainline and Lynn Canal vessels.	Hoonah (HNS), Gustavus (GUS), Pelican (PEL), Tenakee Springs (TKE), Angoon (ANG). Note that Juneau and Sitka also serve as primary hubs for SE Feeder routes, and that occasionally mainline vessels will make port calls to SE Feeder communities. All traffic and revenues that involves one of the SE Feeder communities as either the origin or destination is attributed to the SE Feeder route group.
Metlakatla	<i>Lituya</i>	Metlakatla (ANB). Note that ANB stands for Annette Bay the location of the terminal for Metlakatla and that this route group also includes Ketchikan.
Prince William Sound (PWS)	<i>Aurora, Hubbard</i>	Whittier (WTR), Cordova (CDV), Valdez (VDZ), Tatitlek (TAT). Note that Chenega Bay (CHB) which is located in the Southwest portion of Prince William Sound is considered part of the Cross-Gulf route group.
Homer-Kodiak	<i>Tustumena, Kennicott</i>	Homer (HOM), Kodiak (KOD), Seldovia (SDV), Ouzinkie (OUZ), Port Lions (ORI).
Southwest	<i>Tustumena, Kennicott</i>	Old Harbor (OLD), Chignik (CHG), Sandpoint (SDP), King Cove (KCV), Cold Bay (CBY), False Pass (FPS), Akutan (AKU), Unalaska/Dutch Harbor (UNA). Note that Homer and Kodiak are considered hub ports for the Southwest route group.
Cross-Gulf	<i>Kennicott</i>	Only two communities are considered to be exclusively in the Cross-Gulf route group—Yakutat (YAK) and Chenega Bay (CHB). Currently the primary west-to-east Cross-Gulf route runs from KOD-HOM-CHB-WTR-YAK-JNU and may continue on down to BEL.

2 Summary of Lynn Canal Routes

Historic operating data for Lynn Canal routes are shown in Table 2, including the number of vessel operating days within the route group as well as a summary of purchased passenger, car deck, and cabin services. The passenger section includes revenues, the number of passengers who traveled, the total travel distance of passengers (represented as passenger-miles), and the average cost of travel per passenger-mile. The car deck and cabin sections present similar information, but the car deck volume is measured in units of length (feet).

The Lynn Canal routes consist of segments between three southeast Alaska cities: Juneau, Haines, and Skagway. By revenue, travel between Haines and Juneau is the largest portion of AMHS for this route group and travel between Haines and Skagway is the smallest. The Lynn Canal routes are served by multiple vessels and the individual segments are often linked to larger sailing schedules within the Mainline and Cross-Gulf routes.

Table 2. AMHS Operating Days, Volume and Revenue in Lynn Canal

Fiscal Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018 as % of 2009
Vessel Operating Days	334	318	315	321	305	277	282	266	256	248	74%
Passenger Revenue (\$1,000s)	\$2,374	\$2,307	\$2,266	\$2,287	\$2,271	\$2,329	\$2,583	\$2,721	\$3,143	\$3,283	138%
Passengers	84,190	82,469	80,220	83,398	84,704	80,539	82,457	76,027	77,933	77,686	92%
Passenger Miles (1,000s of Pax-NM)	5,347	5,173	5,012	5,237	5,236	4,970	4,989	4,709	4,859	4,698	88%
Revenue Per Passenger Mile (\$)	\$0.44	\$0.45	\$0.45	\$0.44	\$0.43	\$0.47	\$0.52	\$0.58	\$0.65	\$0.70	157%
Car Deck Revenue (\$1,000s)	\$2,408	\$2,429	\$2,381	\$2,488	\$2,523	\$2,522	\$2,540	\$2,441	\$2,543	\$2,617	109%
Car Deck Lengths (1,000s of feet)	515	519	507	529	539	520	526	467	441	437	85%
Car Deck Length-NM (1,000s of feet-NM)	29,858	29,681	28,729	30,365	30,809	29,450	29,256	26,224	24,670	23,331	78%
Revenue per Car Deck Length-NM (\$)	\$0.081	\$0.082	\$0.083	\$0.082	\$0.082	\$0.086	\$0.087	\$0.093	\$0.084	\$0.090	112%
Cabin Revenue (\$1,000s)	\$91	\$101	\$107	\$116	\$142	\$117	\$146	\$137	\$88	\$106	117%
Cabins	1,394	1,528	1,728	1,713	2,122	1,757	2,170	1,908	1,149	1,298	93%
Cabin Miles (1,000s of Cabin Miles)	105	115	129	129	159	130	161	141	85	96	92%
Revenue per Cabin Mile (\$)	\$0.86	\$0.87	\$0.82	\$0.90	\$0.90	\$0.90	\$0.91	\$2.00	\$1.04	\$1.10	127%
Total Revenue (\$1,000s)	\$4,872	\$4,837	\$4,754	\$4,890	\$4,936	\$4,967	\$5,270	\$5,300	\$5,774	\$6,005	123%
Revenue per Vessel-Day (\$/Day)	\$14,587	\$15,203	\$15,075	\$15,219	\$16,184	\$17,932	\$18,688	\$19,949	\$22,539	\$24,265	166%

Source: Northern Economics analysis using data from AMHS (2019).

Table 3 shows the Lynn Canal Route Group percentage of passenger, car deck, and cabin revenues separated by residency of the ticket purchaser. Local revenues are derived from ticket purchasers who live in either the departure or arrival city, Other Alaska revenues include all other residents of Alaska, and Outside Alaska revenues include ticket purchases from residents of other states and countries. About half of revenues in the Lynn Canal Route Group (47 to 56 percent) are from local residents, and most of the remaining revenue comes from out-of-state customers. Very little of the Lynn Canal routes revenue (4 to 6 percent) comes from other Alaska residents.

Table 3. Local/Non-Local Fiscal Year Revenue by Fare Class on Lynn Canal Routes

Fare Class	Residency	2009	2010	2011	2012	2013	2014	2015	2016	Average
Passenger Revenue	Local	42%	43%	43%	45%	45%	46%	48%	53%	45%
	Other Alaska	5%	5%	4%	4%	5%	4%	4%	4%	4%
	Outside Alaska	52%	52%	53%	51%	50%	50%	49%	43%	51%
	Subtotal (\$1,000s)	\$2,374	\$2,307	\$2,266	\$2,287	\$2,271	\$2,329	\$2,583	\$2,015	\$2,345
Car Deck Revenue	Local	50%	50%	50%	51%	53%	55%	54%	59%	52%
	Other Alaska	6%	5%	4%	4%	5%	4%	5%	5%	5%
	Outside Alaska	44%	45%	45%	45%	42%	41%	41%	37%	43%
	Subtotal (\$1,000s)	\$2,408	\$2,429	\$2,381	\$2,488	\$2,523	\$2,522	\$2,540	\$1,854	\$2,470
Cabin Revenue	Local	65%	67%	70%	59%	66%	66%	67%	70%	66%
	Other Alaska	8%	7%	6%	7%	7%	5%	6%	5%	7%
	Outside Alaska	27%	26%	25%	34%	27%	29%	27%	25%	28%
	Subtotal (\$1,000s)	\$91	\$101	\$107	\$116	\$142	\$117	\$146	\$119	\$117
Total Revenue	Local	47%	47%	47%	48%	50%	51%	51%	56%	49%
	Other Alaska	6%	5%	4%	4%	5%	4%	4%	4%	5%
	Outside Alaska	48%	48%	48%	48%	45%	45%	44%	40%	47%
	Total (\$1,000s)	\$4,872	\$4,837	\$4,754	\$4,890	\$4,936	\$4,967	\$5,270	\$3,988	\$4,932

Notes:

- 1) Residency Data have not been reported by AMHS since the implementation of its new ticketing system in May 2016.
- 2) Since data for FY 2016 do not include May and June, the average percentage calculations are a weighted average based on revenue from FY 2009 to FY 2015.

Source: Northern Economics analysis using data from AMHS (2019).

Table 4 on the following page shows Lynn Canal Route Group revenues for local and non-local ticket purchasers over different seasonal periods to account for fluctuations in travel activity and service schedules. The peak season includes June, July and August, while the winter season spans from November through March. The remaining months of September, October, April and May are considered the shoulder months. Local revenues make up a much larger share of total revenues in the winter months, compared to the peak months when there are more tourists traveling on the AMHS.

Table 4. Local/Non-Local Fiscal Year Revenue Percentages by Season on Lynn Canal Routes

Season	Residency	2009	2010	2011	2012	2013	2014	2015	2016	Average
Winter Revenue	Local	69%	68%	72%	73%	72%	76%	75%	78%	72%
	Other Alaska	9%	8%	5%	4%	5%	4%	5%	5%	6%
	Outside Alaska	21%	24%	22%	23%	23%	20%	20%	17%	22%
	Subtotal (\$1,000s)	\$843	\$860	\$701	\$788	\$836	\$945	\$951	\$1,058	\$846
Shoulder Revenue	Local	57%	56%	57%	56%	59%	59%	59%	63%	58%
	Other Alaska	7%	6%	6%	5%	6%	5%	5%	5%	6%
	Outside Alaska	37%	38%	37%	39%	35%	36%	36%	33%	37%
	Subtotal (\$1,000s)	\$1,404	\$1,401	\$1,424	\$1,564	\$1,651	\$1,489	\$1,651	\$1,264	\$1,512
Peak Revenue	Local	34%	35%	35%	36%	37%	37%	38%	37%	36%
	Other Alaska	4%	3%	3%	4%	4%	3%	3%	4%	4%
	Outside Alaska	62%	61%	62%	60%	60%	59%	58%	59%	60%
	Subtotal (\$1,000s)	\$2,625	\$2,576	\$2,629	\$2,538	\$2,449	\$2,532	\$2,668	\$1,666	\$2,574
Total Revenue	Local	47%	47%	47%	48%	50%	51%	51%	56%	49%
	Other Alaska	6%	5%	4%	4%	5%	4%	4%	4%	5%
	Outside Alaska	48%	48%	48%	48%	45%	45%	44%	40%	47%
	Total (\$1,000s)	\$4,872	\$4,837	\$4,754	\$4,890	\$4,936	\$4,967	\$5,270	\$3,988	\$4,932

Notes:

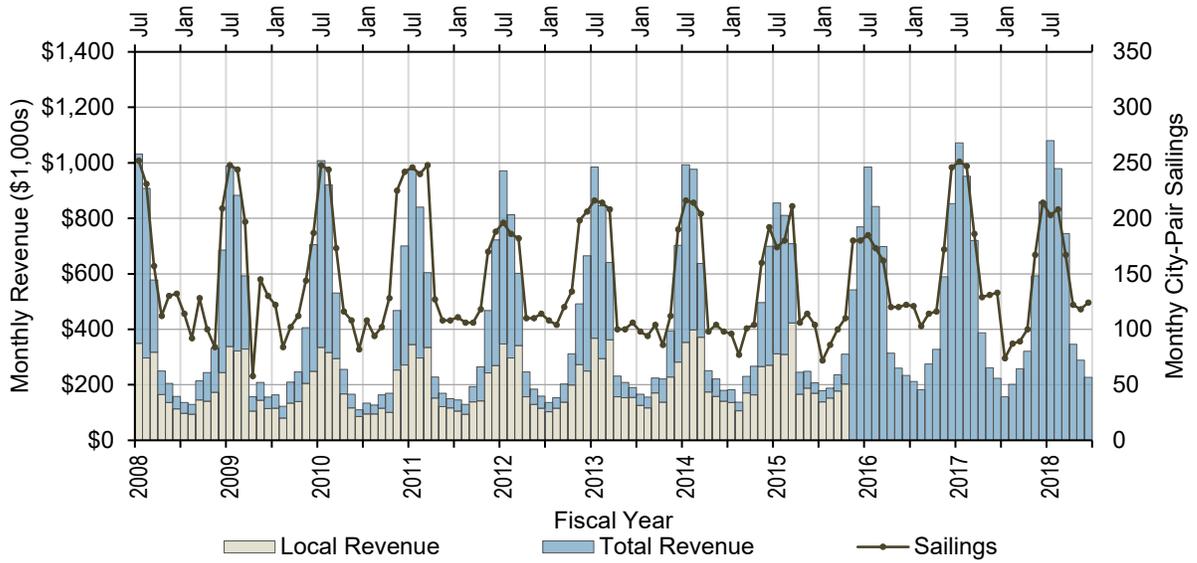
- 1) The Peak Season for AMHS is from June through August. The Winter Season runs from November through March. The Shoulder Seasons are April–May and September–October.
- 2) Residency Data have not been reported by AMHS since the implementation of its new ticketing system in May 2016.
- 3) Since data for FY 2016 do not include May and June, the average percentage calculations are a weighted average based on revenue from FY 2009 to FY 2015.

Source: Northern Economics analysis using data from AMHS (2019).

The following figures represent monthly revenue data for the Lynn Canal routes, separated by local and non-local residency when information is available. The solid line represents the number of sailings connections for all pairs of departure and arrival cities. Figure 1 shows monthly revenues and city-pair sailings for the entire Lynn Canal region. Most revenue in the winter months is from local residents, while over half the peak season revenue is from non-locals. The percentage of peak season revenue from non-locals is even higher for the Haines-Skagway route as compared to the Lynn Canal route group. In these figures and in all similar figures, the dark olive line is the number of origin/destination city-pair combinations that occurred in the month. For example, if a ferry travels from Juneau to Haines, then to Skagway and lastly returns directly to Juneau, there are five potential origin/destination combinations: Juneau to Haines, Juneau to Skagway, Haines to Skagway, Haines to Juneau, and Skagway to Juneau.

Figure 2 through Figure 4 on the following pages show monthly travel and sailing for the three city-pairs in Lynn Canal. Figure 2 shows monthly revenues and sailings for travel between Haines and Skagway—approximately 14 percent of revenue from July 2008–April 2018 was generated from local purchasers. Figure 3 shows monthly revenues and sailings for travel between Haines and Juneau with revenues separated by local and non-local resident ticket purchasers when data are available. Approximately 61 percent of revenue was locally based. Figure 4 shows monthly revenues and sailings for travel between Juneau and Skagway—approximately 49 percent of revenue was locally based.

Figure 1. Monthly Local Resident and Total Lynn Canal Revenues and Sailings, by Fiscal Year

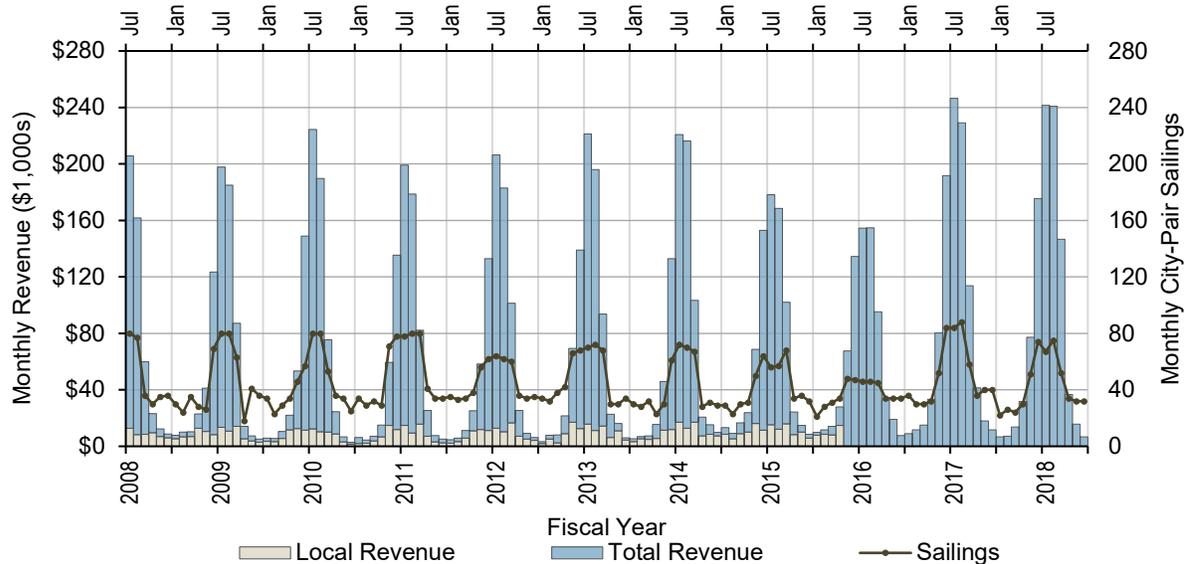


Notes:

- 1) Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.
- 2) Monthly City-Pair Sailings (the dark olive line) is the count of all combinations of origin/destination city-pairs in each vessel sailing.

Source: Northern Economics analysis using data from AMHS (2019).

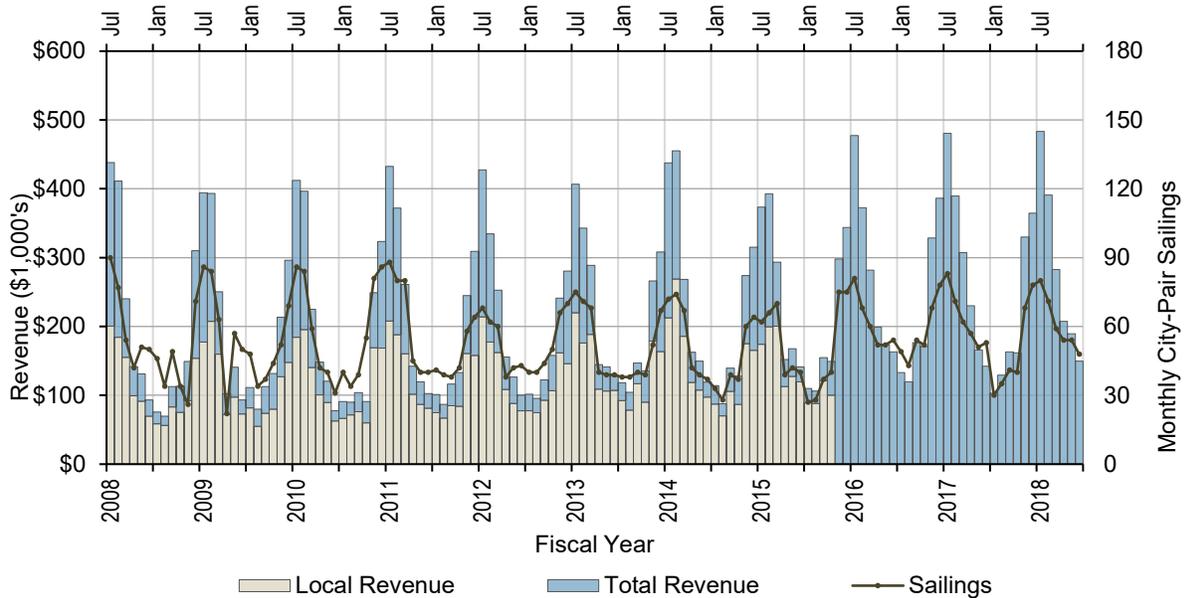
Figure 2. Monthly Local Resident and Total Haines-Skagway Revenues and Sailings, by Fiscal Year



Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

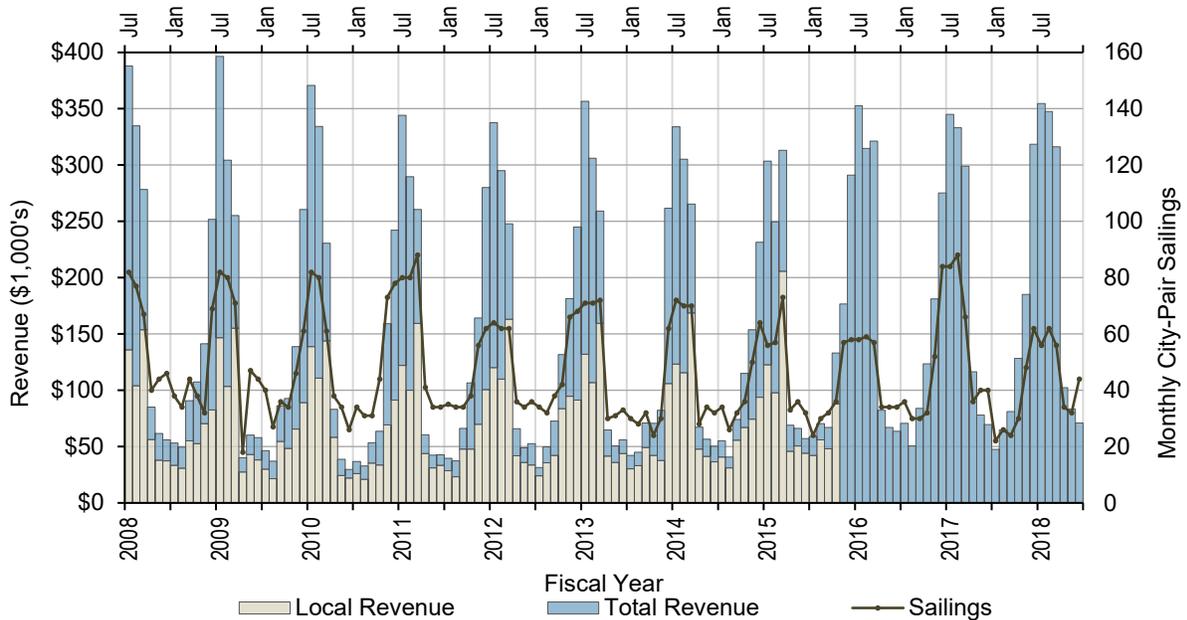
Figure 3. Monthly Local Resident and Total Haines-Juneau Revenues and Sailings, by Fiscal Year



Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

Figure 4. Monthly Local Resident and Total Juneau-Skagway Revenues and Sailings, by Fiscal Year



Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

Table 5 summarizes the distribution of vessel operating days within the Lynn Canal region over each of the peak, winter and shoulder seasonal periods. The upper portion of the table shows the number of vessel operating days while the lower portion of the table provides a percentage based on the total number of vessel operating days within the fiscal year.

Table 5. Number of Vessel Operating Days on Lynn Canal Routes by Season with Percentages by Fiscal Year

Fiscal Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018 as % of 2009
Total Days	334	318	315	321	305	277	282	266	256	248	74%
Peak Season	111	110	118	114	106	103	102	88	91	95	86%
Shoulder Season	90	87	113	112	109	92	95	100	85	85	94%
Winter Season	134	122	85	96	90	82	85	78	80	68	51%
Percent of Operating Days by Season											
Peak Season	33%	34%	37%	35%	35%	37%	36%	33%	36%	38%	116%
Shoulder Season	27%	27%	36%	35%	36%	33%	34%	38%	33%	34%	127%
Winter Season	40%	38%	27%	30%	30%	30%	30%	29%	31%	27%	69%

Source: Northern Economics analysis using data from AMHS (2019).

3 Summary of Southeast Feeder Routes

Historic operating data for Southeast Feeder routes are shown in Table 6 including the number of vessel operating days within the route group as well as a summary of purchased passenger, car deck, and cabin services. The passenger section includes revenues, the number of passengers who traveled, the total travel distance of passengers (represented as passenger-miles), and the average cost of travel per passenger-mile. The car deck and cabin sections present similar information, but the car deck volume is measured in units of length (feet).

The Southeast Feeder routes consist of segments between regional hub cities like Sitka or Juneau, and smaller outlying villages throughout Southeast Alaska. These communities rely on AMHS to reach hospitals, grocery stores, and other services not provided in rural communities. In all, there are 16 communities with ferry service that are included within the Southeast Feeder route group. The largest segments, as measured by revenue, are those that connect villages to Juneau.

Table 6. AMHS Operating Days, Volume and Revenue in Southeast Feeder Routes by Fiscal Year

Fiscal Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018 as % of 2009
Vessel Operating Days	302	268	251	277	338	312	283	250	245	221	73%
Passenger Revenue (\$1,000s)	\$546	\$512	\$548	\$624	\$638	\$678	\$658	\$765	\$880	\$989	181%
Passengers	26,355	24,550	26,233	30,187	30,935	30,420	27,906	27,495	24,488	25,105	95%
Passenger Miles (1,000s of Pax-NM)	1,680	1,582	1,660	1,889	1,943	1,871	1,743	1,698	1,526	1,562	93%
Revenue Per Passenger Mile (\$)	\$0.33	\$0.32	\$0.33	\$0.33	\$0.33	\$0.36	\$0.38	\$0.45	\$0.58	\$0.63	195%
Car Deck Revenue (\$1,000s)	\$521	\$462	\$544	\$678	\$733	\$758	\$745	\$770	\$794	\$835	160%
Car Deck Lengths (1,000s of feet)	125	110	136	176	182	185	185	171	141	138	110%
Car Deck Length-NM (1,000s of feet-NM)	7,497	6,723	8,295	10,636	11,163	10,907	11,358	10,036	8,628	8,398	112%
Revenue per Car Deck Length-NM (\$)	\$0.070	\$0.069	\$0.066	\$0.064	\$0.066	\$0.070	\$0.066	\$0.077	\$0.084	\$0.090	130%
Cabin Revenue (\$1,000s)	\$4	\$5	\$9	\$5	\$10	\$11	\$6	\$9	\$9	\$2	51%
Cabins	61	74	140	88	154	181	95	135	105	27	44%
Cabin Miles (1,000s of Cabin Miles)	8	10	16	10	21	19	8	13	12	3	30%
Revenue per Cabin Mile (\$)	\$0.51	\$0.52	\$0.52	\$0.55	\$0.48	\$0.58	\$0.68	No Revenue	\$0.75	\$0.87	170%
Total Revenue (\$1,000s)	\$1,072	\$979	\$1,100	\$1,307	\$1,381	\$1,448	\$1,409	\$1,543	\$1,683	\$1,827	170%
Revenue per Vessel-Day (\$/Day)	\$3,549	\$3,658	\$4,378	\$4,714	\$4,086	\$4,639	\$4,988	\$6,170	\$6,865	\$8,266	233%

Source: Northern Economics analysis using data from AMHS (2019).

Table 7 shows the Southeast Feeder route group percentages of passenger, car deck, and cabin revenues separated by residency of the ticket purchaser. Local revenues are derived from ticket purchasers who live in either the departure or arrival city, Other Alaska revenues include all other residents of Alaska, and Outside Alaska revenues include ticket purchases from residents of other states and countries.

Table 7. Local/Non-Local Fiscal Year Revenue by Fare Class on Southeast Feeder Routes

Fare Class	Residency	2009	2010	2011	2012	2013	2014	2015	2016	Average
Passenger Revenue	Local	79%	80%	76%	70%	72%	71%	73%	72%	74%
	Other Alaska	7%	7%	6%	8%	6%	8%	6%	8%	7%
	Outside Alaska	14%	13%	17%	22%	22%	21%	22%	19%	19%
	Subtotal (\$1,000s)	\$546	\$512	\$548	\$624	\$638	\$678	\$658	\$615	\$600
Car Deck Revenue	Local	88%	88%	86%	82%	84%	84%	84%	85%	85%
	Other Alaska	5%	5%	6%	8%	6%	7%	8%	8%	7%
	Outside Alaska	7%	7%	9%	9%	10%	9%	8%	7%	8%
	Subtotal (\$1,000s)	\$521	\$462	\$544	\$678	\$733	\$758	\$745	\$622	\$635
Cabin Revenue	Local	79%	78%	85%	83%	80%	80%	81%	88%	81%
	Other Alaska	18%	16%	12%	9%	15%	10%	9%	5%	12%
	Outside Alaska	2%	6%	3%	8%	5%	10%	11%	8%	7%
	Subtotal (\$1,000s)	\$4	\$5	\$9	\$5	\$10	\$11	\$6	\$9	\$7
Total Revenue	Local	83%	84%	81%	77%	78%	78%	79%	79%	80%
	Other Alaska	6%	6%	6%	8%	6%	8%	7%	8%	7%
	Outside Alaska	11%	10%	13%	15%	15%	15%	14%	13%	14%
	Total (\$1,000s)	\$1,072	\$979	\$1,100	\$1,307	\$1,381	\$1,448	\$1,409	\$1,246	\$1,242

Notes:

- 1) Residency Data have not been reported by AMHS since the implementation of its new ticketing system in May 2016.
- 2) Since data for FY 2016 do not include May and June, the average percentage calculations are a weighted average based on revenue from FY 2009 to FY 2015.

Source: Northern Economics analysis using data from AMHS (2019).

Table 8 shows Southeast Feeder route group revenues for local and non-local ticket purchasers over different seasonal periods to account for fluctuations in travel activity and service schedules. The peak season includes June, July and August, while the winter season spans from November through March. The remaining months of September, October, April and May are considered the shoulder months.

Table 8. Local/Non-Local Fiscal Year Revenue Percentages by Season on Southeast Feeder Routes

Season	Residency	2009	2010	2011	2012	2013	2014	2015	2016	Average
Winter Revenue	Local	87%	89%	88%	84%	89%	85%	86%	86%	87%
	Other Alaska	8%	6%	8%	12%	7%	10%	10%	10%	9%
	Outside Alaska	5%	4%	4%	4%	4%	5%	4%	4%	4%
	Subtotal (\$1,000s)	\$368	\$357	\$363	\$375	\$416	\$477	\$453	\$537	\$401
Shoulder Revenue	Local	87%	83%	82%	80%	82%	81%	83%	81%	82%
	Other Alaska	5%	8%	6%	8%	7%	8%	7%	8%	7%
	Outside Alaska	8%	9%	12%	12%	11%	11%	10%	11%	11%
	Subtotal (\$1,000s)	\$366	\$280	\$366	\$402	\$474	\$469	\$457	\$388	\$402
Peak Revenue	Local	76%	78%	74%	70%	66%	67%	68%	64%	71%
	Other Alaska	5%	4%	4%	4%	5%	5%	5%	6%	5%
	Outside Alaska	19%	17%	23%	26%	29%	28%	27%	31%	25%
	Subtotal (\$1,000s)	\$337	\$342	\$371	\$530	\$490	\$502	\$499	\$320	\$439
Total Revenue	Local	83%	84%	81%	77%	78%	78%	79%	79%	80%
	Other Alaska	6%	6%	6%	8%	6%	8%	7%	8%	7%
	Outside Alaska	11%	10%	13%	15%	15%	15%	14%	13%	14%
	Total (\$1,000s)	\$1,072	\$979	\$1,100	\$1,307	\$1,381	\$1,448	\$1,409	\$1,246	\$1,242

Notes:

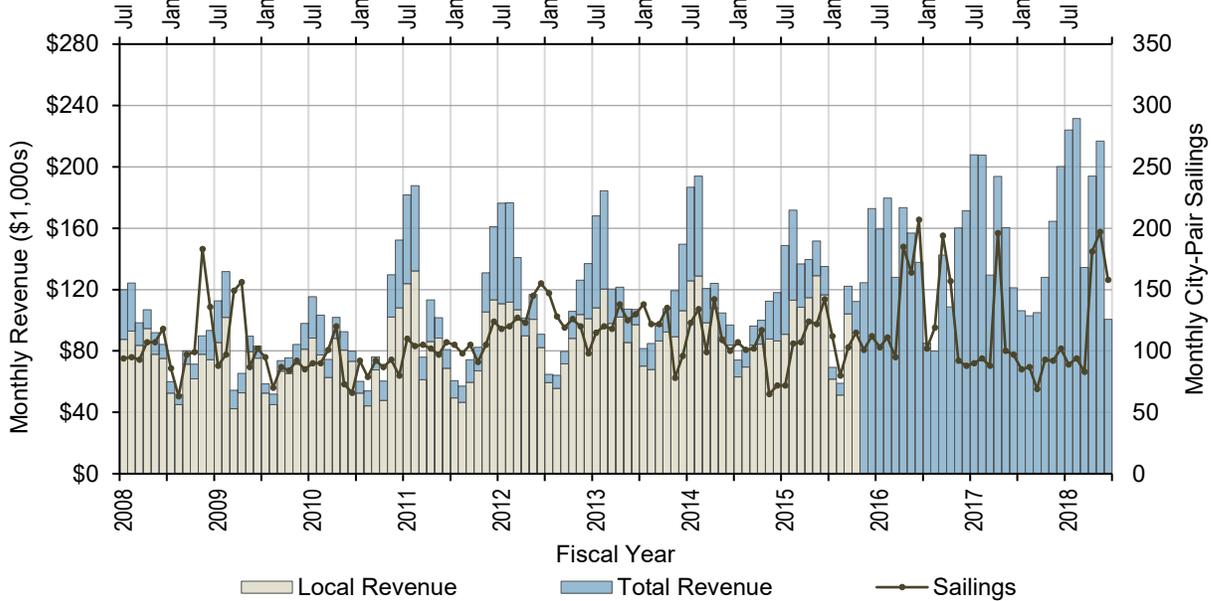
- 1) The Peak Season for AMHS is from June through August. The Winter Season runs from November through March. The Shoulder Seasons are April–May and September–October.
- 2) Residency Data have not been reported by AMHS since the implementation of its new ticketing system in May 2016.
- 3) Since data for FY 2016 do not include May and June, the average percentage calculations are a weighted average based on revenue from FY 2009 to FY 2015.

Source: Northern Economics analysis using data from AMHS (2019).

The following figures represent monthly revenue data for the Southeast Feeder routes, separated by local and non-local residency when information is available. The solid line represents the number of origin/destination city-pair sailings. Figure 5 shows revenues and city-pair sailings for the entire Southeast Feeder route group—the majority of revenue is generated from local purchasers. The percentage of revenue from non-locals increases during the peak season, but local revenue still comprises over 60 percent of total revenue during these months.

Figure 6 though Figure 10 show monthly revenue between each Southeast Feeder community and Juneau including Hoonah, Gustavus, Pelican, Angoon, and Tenakee Springs. Other selected city-pair combinations for individual Southeast Feeder communities are available in Appendix B. In general travel between these communities and Juneau is dominated by locally based travel.

Figure 5. Monthly Local Resident and Total Southeast Feeder Revenues and Sailings, by Fiscal Year

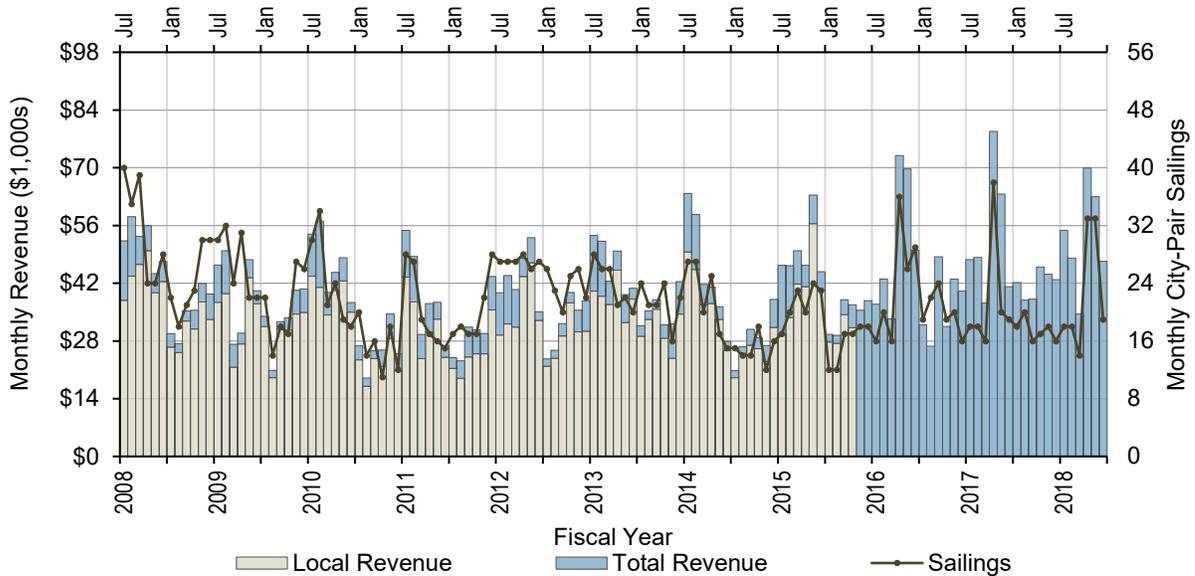


Notes:

- 1) Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.
- 2) Monthly City-Pair Sailings (the dark olive line) is the count of all combinations of origin/destination city-pairs in each vessel sailing.

Source: Northern Economics analysis using data from AMHS (2019).

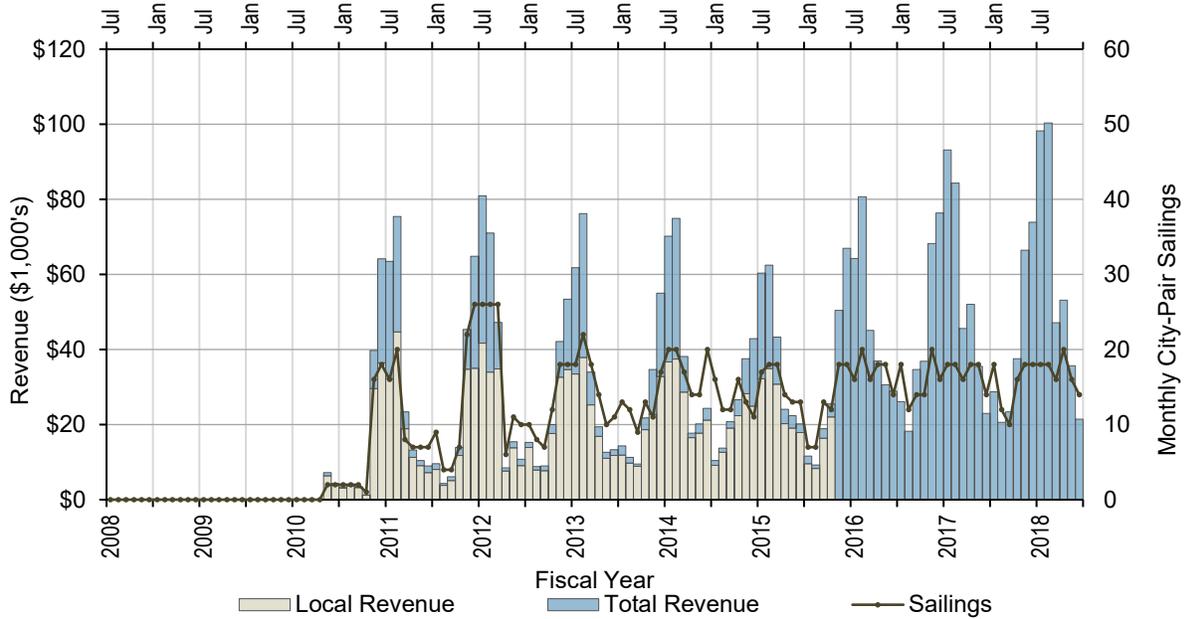
Figure 6. Monthly Local Resident and Total Hoonah-Juneau Revenues and Sailings, by Fiscal Year



Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

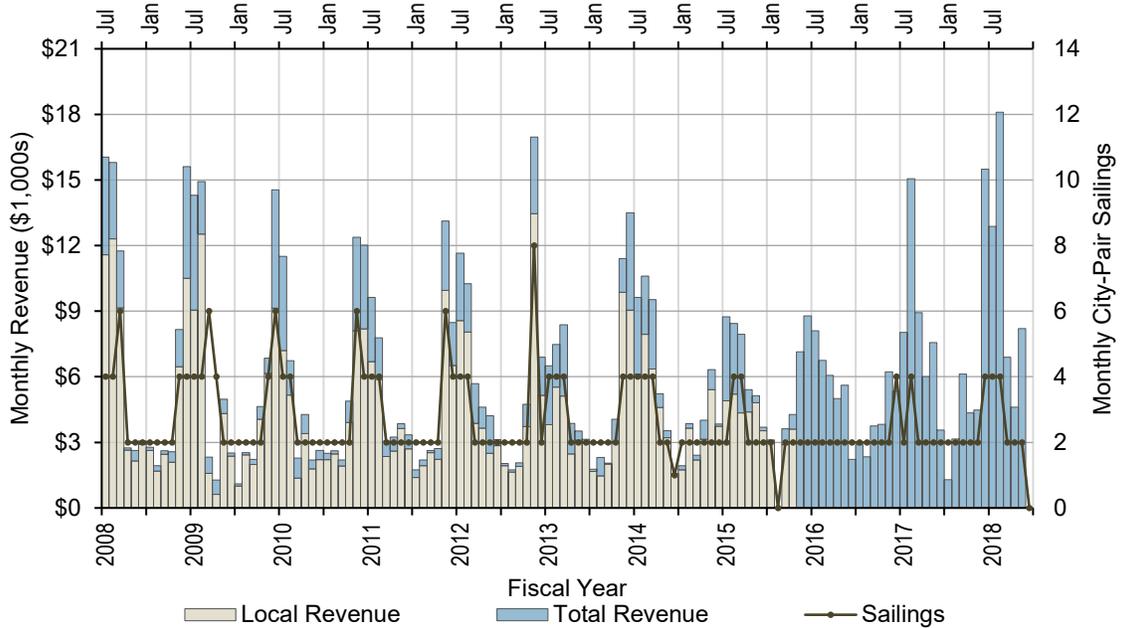
Figure 7. Monthly Local Resident and Total Gustavus-Juneau Revenues and Sailings, by Fiscal Year



Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

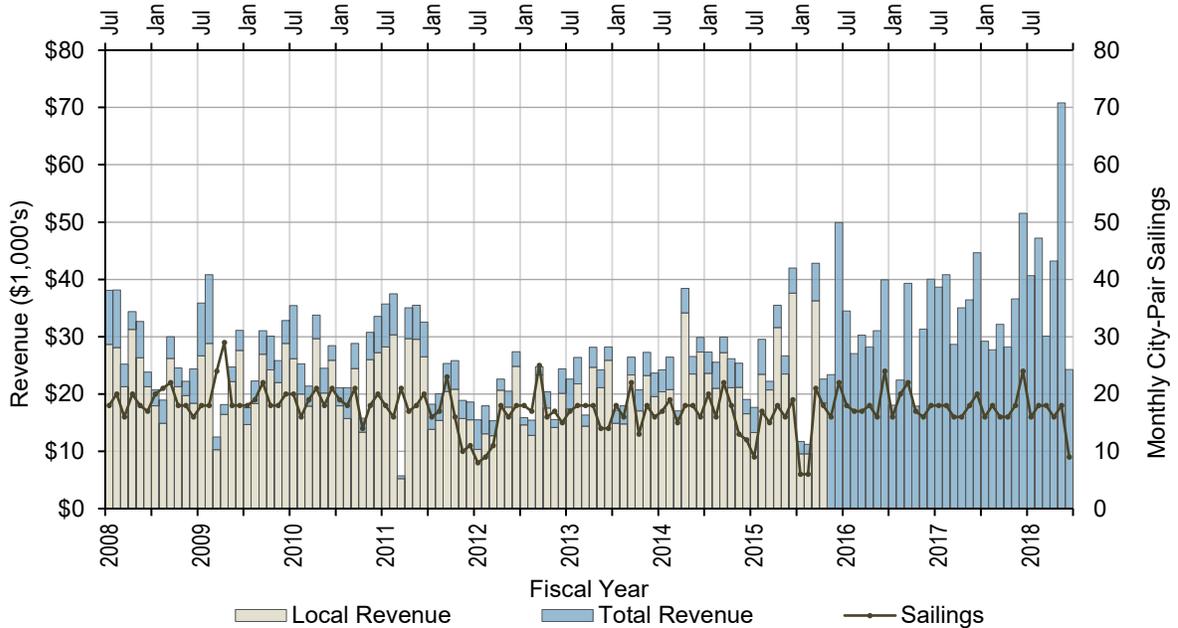
Figure 8. Monthly Local Resident and Total Pelican-Juneau Revenues and Sailings, by Fiscal Year



Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

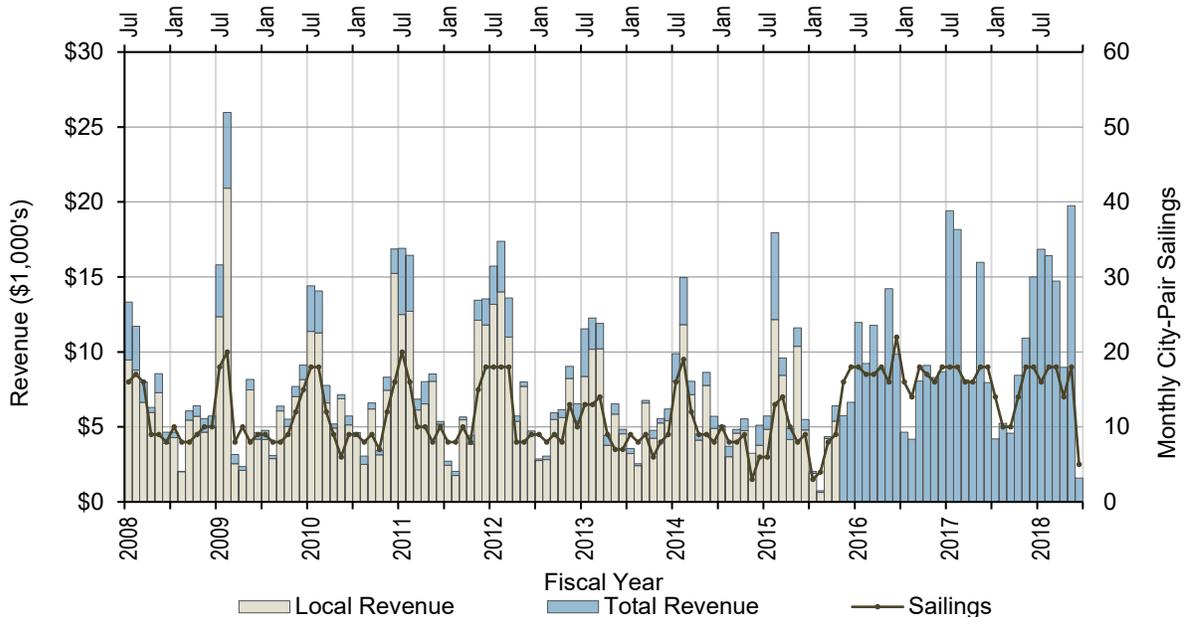
Figure 9. Monthly Local Resident and Total Angoon-Juneau Revenues and Sailings, by Fiscal Year



Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

Figure 10. Monthly Local Resident and Total Tenakee Springs-Juneau Revenues and Sailings, by Fiscal Year



Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

Table 9 summarizes the distribution of vessel operating days within the Southeast Feeder route group over each of the peak, winter and shoulder seasonal periods. The upper portion of the table shows the number of vessel operating days while the lower portion of the table provides a percentage based on the total number of vessel operating days within the fiscal year.

Table 9. Number of Vessel Operating Days on Southeast Feeder Routes by Season with Percentages by Fiscal Year

Fiscal Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018 as % of 2009
Total Days	302	268	251	277	338	312	283	250	245	221	73%
Peak Season	90	79	83	96	94	99	90	64	52	65	72%
Shoulder Season	105	96	84	92	120	101	89	93	82	75	71%
Winter Season	108	93	85	89	124	113	104	94	112	82	76%
Percent of Operating Days by Season											
Peak Season	30%	30%	33%	35%	28%	32%	32%	26%	21%	29%	98%
Shoulder Season	35%	36%	33%	33%	36%	32%	32%	37%	33%	34%	98%
Winter Season	36%	35%	34%	32%	37%	36%	37%	37%	46%	37%	104%

Source: Northern Economics analysis using data from AMHS (2019).

4 Summary of Metlakatla-Ketchikan Run

Historic operating data for the Metlakatla-Ketchikan route (Metlakatla Ferry) are shown in Table 10, including the number of vessel operating days within the route group as well as a summary of purchased passenger, car deck, and cabin services. The passenger section includes revenues, the number of passengers who traveled, the total travel distance of passengers (represented as passenger-miles), and the average cost of travel per passenger-mile. The car deck and cabin sections present similar information, but the car deck volume is measured in units of length (feet). The Metlakatla Ferry provides service only between Annette Bay and Ketchikan and is unique in its pricing structure since ferry passengers pay only for service from Ketchikan to Annette Bay.

Table 10. AMHS Operating Days, Volume and Revenue between Metlakatla (Annette Bay) and Ketchikan by Fiscal Year

Fiscal Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018 as % of 2009
Vessel Operating Days	266	208	262	258	253	255	245	242	258	234	88%
Passenger Revenue (\$1,000s)	\$348	\$314	\$394	\$433	\$417	\$399	\$484	\$556	\$748	\$722	207%
Passengers	29,375	26,624	33,230	35,274	33,304	30,140	31,515	30,812	33,088	25,347	86%
Passenger Miles (1,000s of Pax-NM)	235	213	266	282	266	241	252	246	265	203	86%
Revenue Per Passenger Mile (\$)	\$1.48	\$1.48	\$1.48	\$1.53	\$1.57	\$1.66	\$1.92	\$2.25	\$2.83	\$3.56	240%
Car Deck Revenue (\$1,000s)	\$354	\$339	\$398	\$402	\$383	\$386	\$393	\$392	\$454	\$444	125%
Car Deck Lengths (1,000s of feet)	171	160	195	198	188	181	187	179	171	146	85%
Car Deck Length-NM (1,000s of feet-NM)	1,371	1,283	1,562	1,585	1,502	1,451	1,493	1,430	1,371	1,165	85%
Revenue per Car Deck Length-NM (\$)	\$0.258	\$0.264	\$0.255	\$0.254	\$0.255	\$0.266	\$0.263	\$0.274	\$0.084	\$0.090	35%
Total Revenue (\$1,000s)	\$702	\$653	\$792	\$835	\$800	\$785	\$876	\$948	\$1,202	\$1,165	166%
Revenue per Vessel-Day (\$/Day)	\$2,638	\$3,140	\$3,022	\$3,235	\$3,163	\$3,079	\$3,577	\$3,917	\$4,659	\$4,980	189%

Source: Northern Economics analysis using data from AMHS (2019).

Table 11 shows the Metlakatla Ferry route percentage of passenger and car deck revenues (The *Lituya* does not have cabins) separated by residency of the ticket purchaser. Local revenues are derived from ticket purchasers who live in either the departure or arrival city, Other Alaska revenues include all other residents of Alaska, and Outside Alaska revenues include ticket purchases from residents of other states and countries. In any given year local revenues for the Metlakatla Ferry made up at least 90 percent of total revenues.

Table 11. Local/Non-Local Fiscal Year Revenue by Percentages Fare Class on the Metlakatla Ferry

Fare Class	Residency	2009	2010	2011	2012	2013	2014	2015	2016	Average
Passenger Revenue	Local	90%	88%	87%	88%	89%	92%	90%	91%	89%
	Other Alaska	4%	5%	5%	5%	5%	3%	3%	2%	4%
	Outside Alaska	6%	7%	8%	7%	6%	5%	7%	7%	7%
	Subtotal (\$1,000s)	\$348	\$314	\$394	\$433	\$417	\$399	\$484	\$439	\$398
Car Deck Revenue	Local	93%	91%	92%	94%	93%	94%	94%	94%	93%
	Other Alaska	3%	4%	3%	3%	3%	2%	1%	2%	3%
	Outside Alaska	3%	5%	5%	4%	4%	4%	4%	4%	4%
	Subtotal (\$1,000s)	\$354	\$339	\$398	\$402	\$383	\$386	\$393	\$318	\$379
Cabin Revenue	Local	The <i>Lituya</i> , which makes the run between Metlakatla and Ketchikan does not have cabin.								
	Other Alaska									
	Outside Alaska									
	Subtotal (\$1,000s)									
Total Revenue	Local	92%	90%	90%	91%	91%	93%	92%	92%	91%
	Other Alaska	4%	5%	4%	4%	4%	2%	3%	2%	3%
	Outside Alaska	5%	6%	6%	5%	5%	5%	6%	6%	5%
	Total (\$1,000s)	\$702	\$653	\$792	\$835	\$800	\$785	\$876	\$757	\$778

Notes:

- 1) Residency Data have not been reported by AMHS since the implementation of its new ticketing system in May 2016.
- 2) Since data for FY 2016 do not include May and June, the average percentage calculations are a weighted average based on revenue from FY 2009 to FY 2015.

Source: Northern Economics analysis using data from AMHS (2019).

Table 12 shows the Metlakatla Ferry revenues for local and non-local ticket purchasers over different seasonal periods to account for fluctuations in travel activity and service schedules. The peak season includes June, July and August, while the winter season spans from November through March. The remaining months of September, October, April and May are considered the shoulder months. Travel on this route is dominated by Metlakatla residents, and even during the peak season, non-local travelers contribute less than 15 percent of total revenues.

Table 12. Local/Non-Local Fiscal Year Revenue Percentages by Season on the Metlakatla Ferry

Season	Residency	2009	2010	2011	2012	2013	2014	2015	2016	Average
Winter Revenue	Local	93%	92%	91%	93%	93%	94%	94%	95%	93%
	Other Alaska	4%	4%	4%	4%	4%	2%	2%	2%	3%
	Outside Alaska	3%	4%	5%	3%	3%	3%	4%	3%	4%
	Subtotal (\$1,000s)	\$213	\$148	\$270	\$284	\$278	\$292	\$296	\$314	\$254
Shoulder Revenue	Local	93%	90%	90%	91%	93%	94%	93%	92%	92%
	Other Alaska	3%	5%	4%	4%	4%	2%	3%	2%	4%
	Outside Alaska	4%	5%	5%	5%	3%	4%	5%	6%	5%
	Subtotal (\$1,000s)	\$291	\$289	\$306	\$315	\$290	\$274	\$321	\$253	\$298
Peak Revenue	Local	87%	88%	87%	88%	87%	91%	89%	88%	88%
	Other Alaska	4%	4%	4%	3%	4%	2%	3%	2%	4%
	Outside Alaska	8%	8%	10%	8%	10%	7%	8%	10%	8%
	Subtotal (\$1,000s)	\$197	\$216	\$216	\$235	\$232	\$220	\$260	\$190	\$225
Total Revenue	Local	92%	90%	90%	91%	91%	93%	92%	92%	91%
	Other Alaska	4%	5%	4%	4%	4%	2%	3%	2%	3%
	Outside Alaska	5%	6%	6%	5%	5%	5%	6%	6%	5%
	Total (\$1,000s)	\$702	\$653	\$792	\$835	\$800	\$785	\$876	\$757	\$778

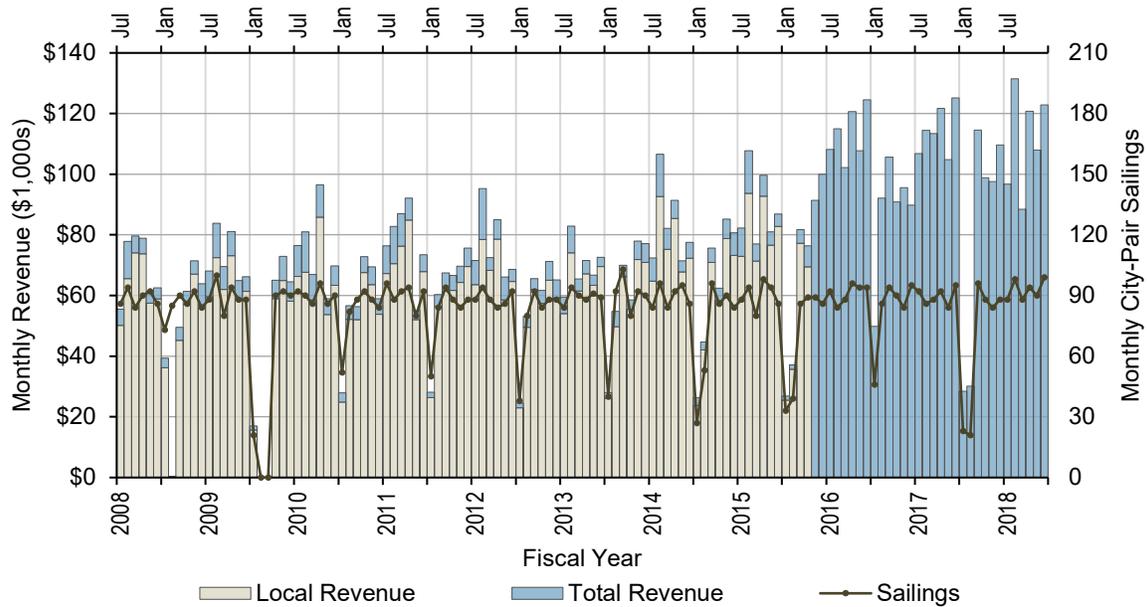
Notes:

- 1) The Peak Season for AMHS is from June through August. The Winter Season runs from November through March. The Shoulder Seasons are April–May and September–October.
- 2) Residency Data have not been reported by AMHS since the implementation of its new ticketing system in May 2016.
- 3) Since data for FY 2016 do not include May and June, the average percentage calculations are a weighted average based on revenue from FY 2009 to FY 2015.

Source: Northern Economics analysis using data from AMHS (2019).

Figure 11 on the following page represents monthly revenue data for the Metlakatla-Ketchikan route, separated by local and non-local residency when information is available. The solid line represents the number of city-pair sailings. Across all seasons, most revenue is from local residents. The percentage of non-local revenue increases only slightly during the peak season.

Figure 11. Monthly Local Resident and Total Metlakatla Revenues and Sailings, by Fiscal Year



Notes:

- 1) Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.
- 2) Monthly City-Pair Sailings (the dark olive line) is the count of all combinations of origin/destination city-pairs in each vessel sailing.

Source: Northern Economics analysis using data from AMHS (2019).

Table 13 summarizes the distribution of vessel operating days for the Metlakatla Ferry over each of the peak, winter and shoulder seasonal periods. The upper portion of the table shows the number of vessel operating days while the lower portion of the table provides a percentage based on the total number of vessel operating days within the fiscal year.

Table 13. Number of Vessel Operating Days on the Metlakatla Ferry by Season with Percentages by Fiscal Year

Fiscal Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018 as % of 2009
Total Days	266	208	262	258	253	255	245	242	258	234	88%
Peak Season	67	68	66	67	68	68	66	68	66	67	100%
Shoulder Season	89	90	91	89	86	87	89	87	90	88	99%
Winter Season	110	50	105	102	99	100	90	87	102	79	72%
Percent of Operating Days by Season											
Peak Season	25%	33%	25%	26%	27%	27%	27%	28%	26%	29%	114%
Shoulder Season	33%	43%	35%	34%	34%	34%	36%	36%	35%	38%	112%
Winter Season	41%	24%	40%	40%	39%	39%	37%	36%	40%	34%	82%

Source: Northern Economics analysis using data from AMHS (2019).

5 Summary of Mainline Routes

Historic operating data for Mainline routes are shown in Table 14, including the number of vessel operating days within the route group as well as a summary of purchased passenger, car deck, and cabin services. In the table, the passenger section includes revenues, the number of passengers that traveled, the total travel distance of passengers (represented as passenger-miles), and the average cost of travel per passenger-mile. The car deck and cabin sections present similar information, but the car deck volume is measured in units of length (feet).

AMHS Mainline routes generally serve to connect Alaska to the contiguous United States via Bellingham and Prince Rupert. In all, the Mainline routes provide service to eight Alaska communities: Ketchikan, Sitka, Petersburg, Wrangell, Juneau, Haines, Skagway, and Kake. Measured by revenue, the segments arriving in or departing from Bellingham are the largest within the Mainline route group. Please note that for purposes of this analysis the Study Team distinguishes between Mainline revenues and Lynn Canal revenues based on city pairs. If travel both originates and ends within Lynn Canal (Juneau, Haines or Skagway) the volume and revenue considered in Lynn Canal.

Table 14. AMHS Operating Days, Volume and Revenue on Mainline Routes by Fiscal Year

Fiscal Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018 as % of 2009
Vessel Operating Days	899	957	1,015	970	930	863	864	765	681	654	73%
Passenger Revenue (\$1,000s)	\$9,238	\$9,038	\$9,296	\$9,035	\$8,991	\$8,729	\$8,984	\$8,712	\$8,359	\$8,127	88%
Passengers	112,073	111,111	113,267	107,659	108,668	100,682	94,526	79,200	60,776	53,979	48%
Passenger Miles (1,000s of Pax-NM)	32,363	32,376	32,958	32,268	33,135	30,273	29,663	24,456	19,156	17,781	55%
Revenue Per Passenger Mile (\$)	\$0.29	\$0.28	\$0.28	\$0.28	\$0.27	\$0.29	\$0.30	\$0.36	\$0.44	\$0.46	160%
Car Deck Revenue (\$1,000s)	\$13,783	\$14,033	\$14,242	\$14,539	\$15,409	\$14,235	\$14,554	\$13,458	\$12,580	\$12,322	89%
Car Deck Lengths (1,000s of feet)	690	705	708	698	724	674	638	556	449	415	60%
Car Deck Length-NM (1,000s of feet-NM)	227,538	232,853	236,082	239,430	253,548	228,895	231,657	196,136	156,045	149,509	66%
Revenue per Car Deck Length-NM (\$)	\$0.061	\$0.060	\$0.060	\$0.061	\$0.061	\$0.062	\$0.063	\$0.069	\$0.084	\$0.090	149%
Cabin Revenue (\$1,000s)	\$4,104	\$4,201	\$4,236	\$4,343	\$4,602	\$4,166	\$4,315	\$3,907	\$3,568	\$3,631	88%
Cabins	21,688	21,442	22,277	22,638	23,112	21,507	21,078	17,926	14,958	13,422	62%
Cabin Miles (1,000s of Cabin Miles)	8,467	8,708	8,985	9,313	9,856	8,844	9,023	7,555	6,315	5,867	69%
Revenue per Cabin Mile (\$)	\$0.48	\$0.48	\$0.47	\$0.47	\$0.47	\$0.47	\$0.48	\$1.09	\$0.56	\$0.62	128%
Total Revenue (\$1,000s)	\$27,125	\$27,273	\$27,774	\$27,917	\$29,002	\$27,131	\$27,853	\$26,077	\$24,506	\$24,079	89%
Revenue per Vessel-Day (\$/Day)	\$30,172	\$28,494	\$27,368	\$28,770	\$31,174	\$31,438	\$32,256	\$34,102	\$35,977	\$36,847	122%

Source: Northern Economics analysis using data from AMHS (2019).

Table 15 shows the Mainline routes percentage of passenger, car deck, and cabin revenues separated by residency of the ticket purchaser. Local revenues are derived from ticket purchasers who live in either the departure or arrival city, Other Alaska revenues include all other residents of Alaska, and Outside Alaska revenues include ticket purchases from residents of other states and countries.

Table 15. Local/Non-Local Fiscal Year Revenue Percentages by Fare Class on Mainline Routes

Fare Class	Residency	2009	2010	2011	2012	2013	2014	2015	2016	Average
Passenger Revenue	Local	29%	30%	30%	30%	30%	31%	30%	33%	30%
	Other Alaska	9%	8%	8%	8%	8%	8%	7%	8%	8%
	Outside Alaska	63%	62%	63%	62%	62%	61%	63%	59%	62%
	Subtotal (\$1,000s)	\$9,238	\$9,038	\$9,296	\$9,035	\$8,991	\$8,729	\$8,984	\$6,662	\$9,045
Car Deck Revenue	Local	32%	33%	33%	33%	32%	34%	34%	34%	33%
	Other Alaska	9%	9%	9%	9%	9%	9%	8%	9%	9%
	Outside Alaska	59%	58%	58%	57%	59%	57%	58%	57%	58%
	Subtotal (\$1,000s)	\$13,783	\$14,033	\$14,242	\$14,539	\$15,409	\$14,235	\$14,554	\$10,748	\$14,399
Cabin Revenue	Local	26%	27%	27%	27%	27%	27%	27%	29%	27%
	Other Alaska	9%	9%	8%	8%	8%	8%	8%	9%	8%
	Outside Alaska	65%	64%	65%	64%	65%	65%	65%	63%	65%
	Subtotal (\$1,000s)	\$4,104	\$4,201	\$4,236	\$4,343	\$4,602	\$4,166	\$4,315	\$3,091	\$4,281
Total Revenue	Local	30%	31%	31%	31%	31%	32%	32%	33%	31%
	Other Alaska	9%	9%	8%	9%	9%	8%	8%	9%	9%
	Outside Alaska	61%	60%	61%	60%	60%	60%	60%	59%	60%
	Total (\$1,000s)	\$27,125	\$27,273	\$27,774	\$27,917	\$29,002	\$27,131	\$27,853	\$20,501	\$27,725

Notes:

- 1) Residency Data have not been reported by AMHS since the implementation of its new ticketing system in May 2016.
- 2) Since data for FY 2016 do not include May and June, the average percentage calculations are a weighted average based on revenue from FY 2009 to FY 2015.

Source: Northern Economics analysis using data from AMHS (2019).

Table 16 shows Mainline route revenues for local and non-local ticket purchasers over different seasonal periods to account for fluctuations in travel activity and service schedules. The peak season includes June, July and August, while the winter season spans from November through March. The remaining months of September, October, April and May are considered the shoulder months. The Mainline routes show strong evidence of seasonal fluctuations related to tourism. During the peak months, non-local travelers make up about 80 percent of revenues compared to about 55 percent in the winter months.

Table 16. Local/Non-Local Fiscal Year Revenue Percentages by Season on Mainline Routes

Season	Residency	2009	2010	2011	2012	2013	2014	2015	2016	Average
Winter Revenue	Local	43%	43%	45%	45%	40%	44%	46%	45%	44%
	Other Alaska	12%	12%	12%	13%	12%	11%	11%	10%	12%
	Outside Alaska	45%	45%	44%	42%	48%	45%	44%	44%	45%
	Subtotal (\$1,000s)	\$6,421	\$6,862	\$6,538	\$6,399	\$7,125	\$6,946	\$6,795	\$6,649	\$6,727
Shoulder Revenue	Local	34%	34%	35%	36%	34%	36%	34%	35%	35%
	Other Alaska	10%	10%	10%	10%	10%	11%	10%	11%	10%
	Outside Alaska	55%	57%	55%	55%	56%	54%	56%	54%	55%
	Subtotal (\$1,000s)	\$8,561	\$8,407	\$8,535	\$8,961	\$9,833	\$8,171	\$8,882	\$6,511	\$8,764
Peak Revenue	Local	20%	22%	21%	21%	23%	22%	22%	20%	22%
	Other Alaska	6%	7%	6%	6%	6%	6%	5%	5%	6%
	Outside Alaska	74%	71%	74%	73%	72%	72%	73%	75%	73%
	Subtotal (\$1,000s)	\$12,143	\$12,005	\$12,701	\$12,556	\$12,044	\$12,014	\$12,176	\$7,340	\$12,234
Total Revenue	Local	30%	31%	31%	31%	31%	32%	32%	33%	31%
	Other Alaska	9%	9%	8%	9%	9%	8%	8%	9%	9%
	Outside Alaska	61%	60%	61%	60%	60%	60%	60%	59%	60%
	Total (\$1,000s)	\$27,125	\$27,273	\$27,774	\$27,917	\$29,002	\$27,131	\$27,853	\$20,501	\$27,725

Notes:

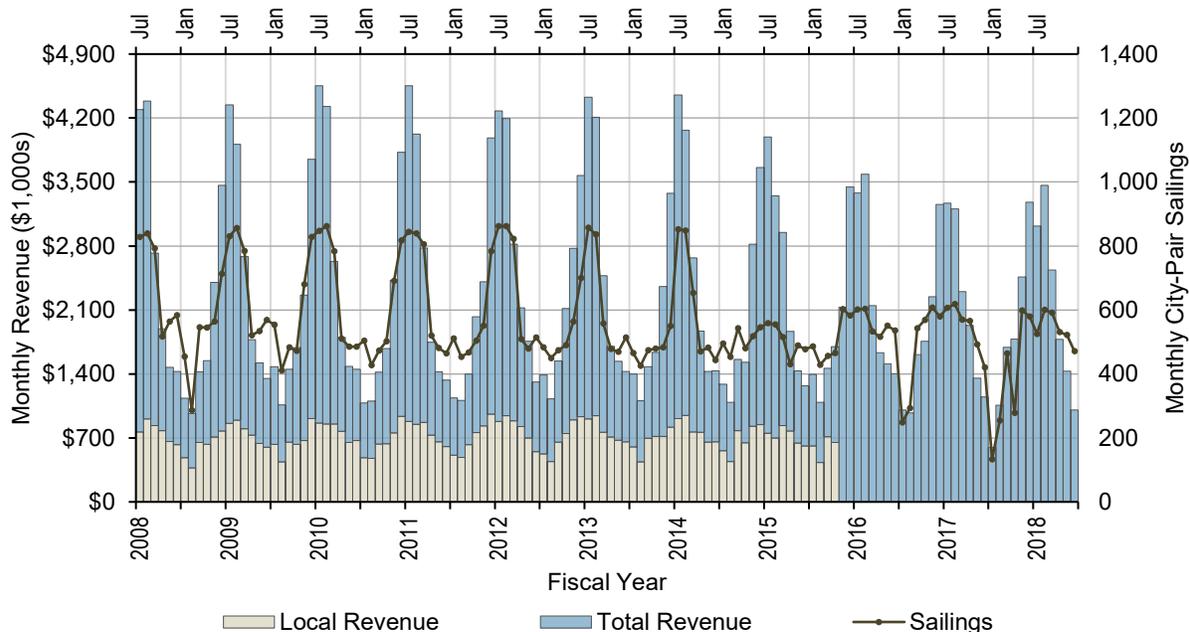
- 1) The Peak Season for AMHS is from June through August. The Winter Season runs from November through March. The Shoulder Seasons are April–May and September–October.
- 2) Residency Data have not been reported by AMHS since the implementation of its new ticketing system in May 2016.
- 3) Since data for FY 2016 do not include May and June, the average percentage calculations are a weighted average based on revenue from FY 2009 to FY 2015.

Source: Northern Economics analysis using data from AMHS (2019).

The following figures represent monthly revenue data for the Mainline routes, separated by local and non-local residency when information is available. The solid line represents the number of origin/destination city-pair sailings.

Figure 12 shows revenues and city-pair sailings for all Mainline routes, and each of the following figures represents travel for a specific pair of departure and arrival cities. For all Mainline routes overall, revenue during the winter months is about half local and half non-local, while revenue during peak season is mostly non-local. Local revenues have some seasonal patterns, but do not fluctuate as dramatically as non-local revenues which increase significantly in the peak summer months. Note that on a typical Mainline sailing starting in Skagway with stops in Haines, Juneau, Kake, Petersburg, Wrangell, Ketchikan, and Bellingham, there would be 25 Mainline city-pair sailings plus 3 Lynn Canal city-pair sailings.

Figure 12. Monthly Local Resident and Total Mainline Revenues and Sailings, by Fiscal Year



Notes:

- 1) Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.
- 2) Monthly City-Pair Sailings (the dark olive line) is the count of all combinations of origin/destination city-pairs in each vessel sailing.

Source: Northern Economics analysis using data from AMHS (2019).

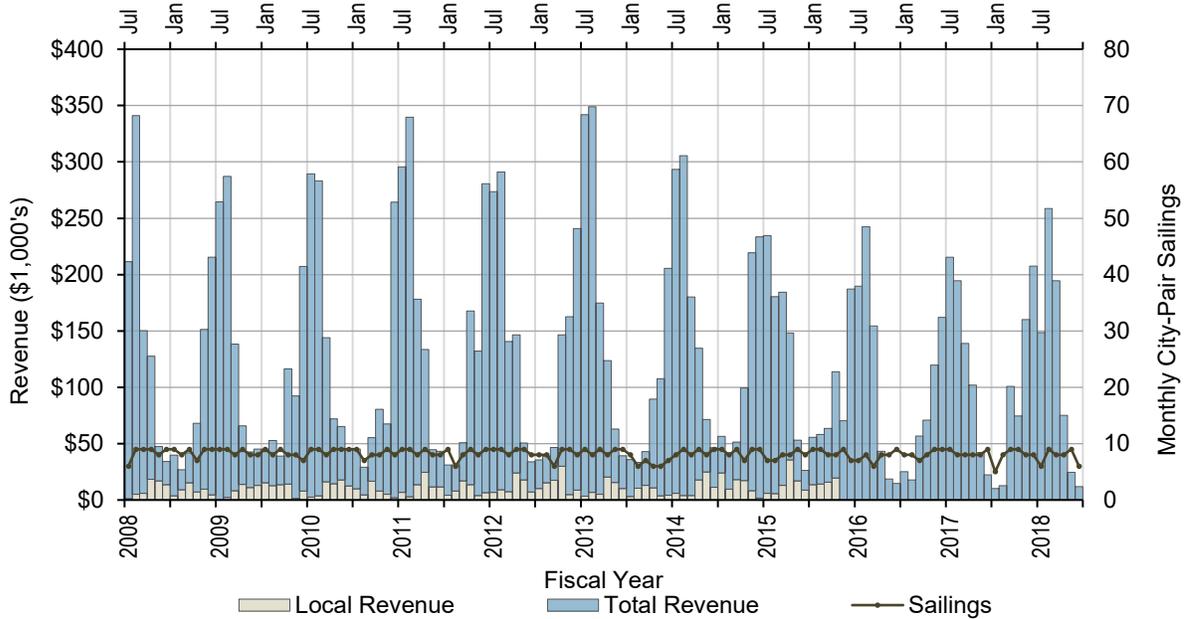
Figure 13 through Figure 21 provide monthly revenues and city-pair sailings for selected city-pairs for each of the communities in the Mainline route group. One figure is provided for each route group with the exception that two are provided for Ketchikan

Figure 13 through Figure 15 show revenue and sailings between Skagway-Bellingham, Haines-Bellingham, and Juneau-Bellingham. Figure 16 through Figure 20 show revenue and sailings between Juneau and the remaining Alaska mainline communities Sitka, Kake, Petersburg, Wrangell, and Ketchikan. Finally, Figure 21 shows revenue and sailings between Ketchikan-Bellingham. As with other similar figures, Figure 21 breaks out revenue from local and non-local purchasers for months when information is available. In all figures the number of sailings is shown by the olive line.

Two important findings are readily apparent when examining this group of figures as a whole:

- 1) When the city-pair involves two Alaska communities, the largest share of revenue is locally based.
- 2) When the city-pair involves Bellingham and another Alaska communities, the vast majority of revenues are generated by non-local travelers.

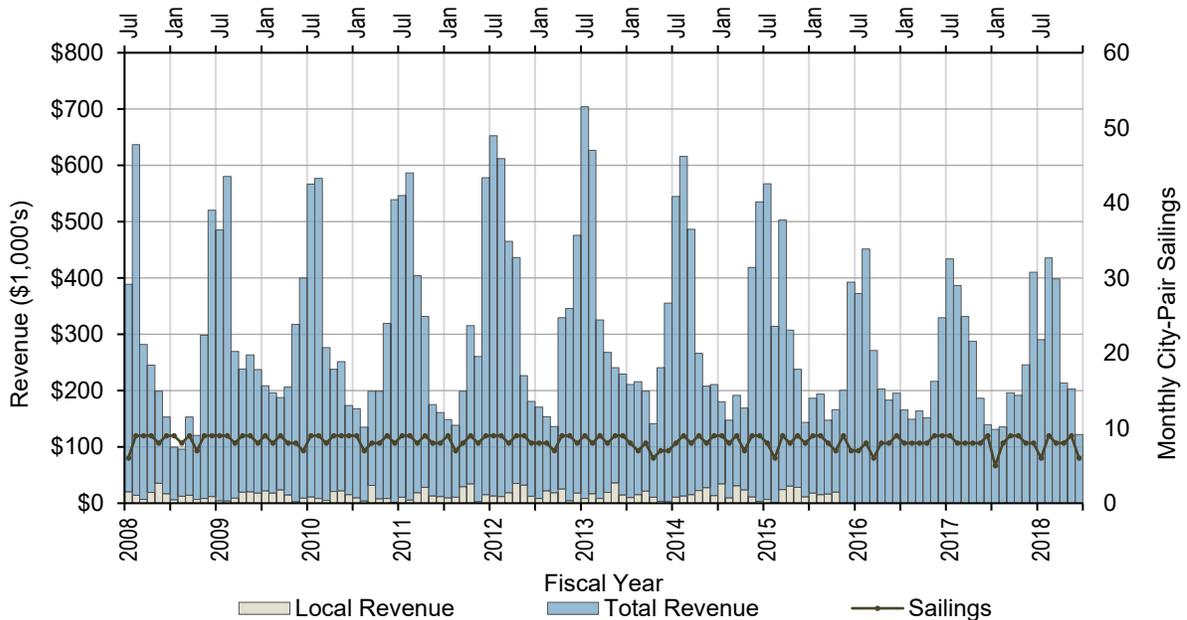
Figure 13. Monthly Local Resident and Total Skagway-Bellingham Revenues and Sailings, by Fiscal Year



Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

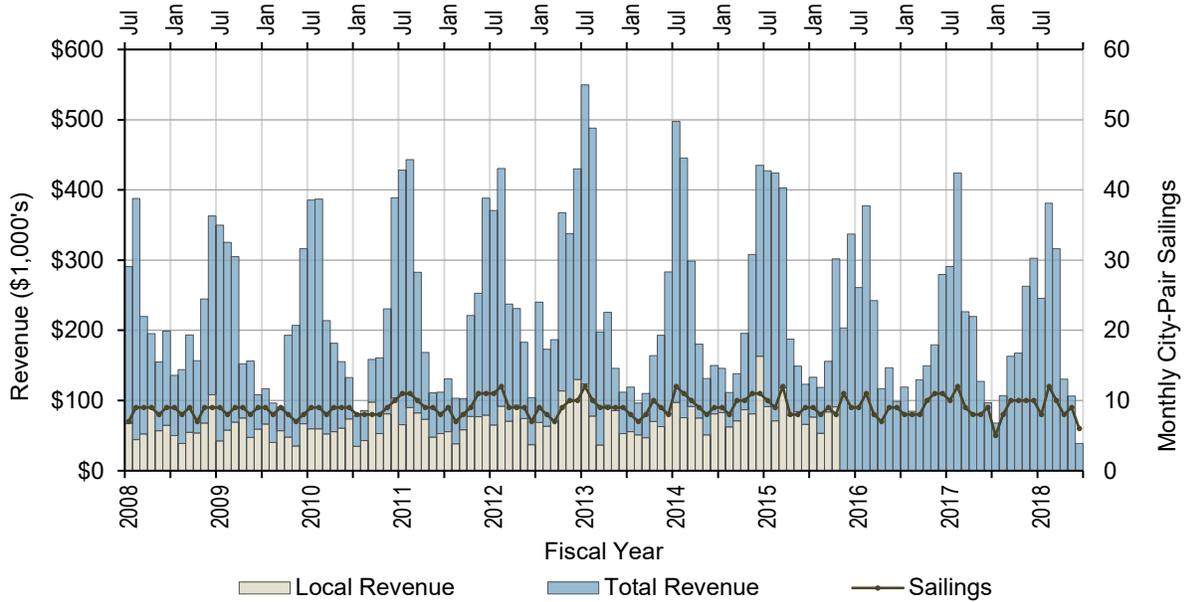
Figure 14. Monthly Local Resident and Total Haines-Bellingham Revenues and Sailings, by Fiscal Year



Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

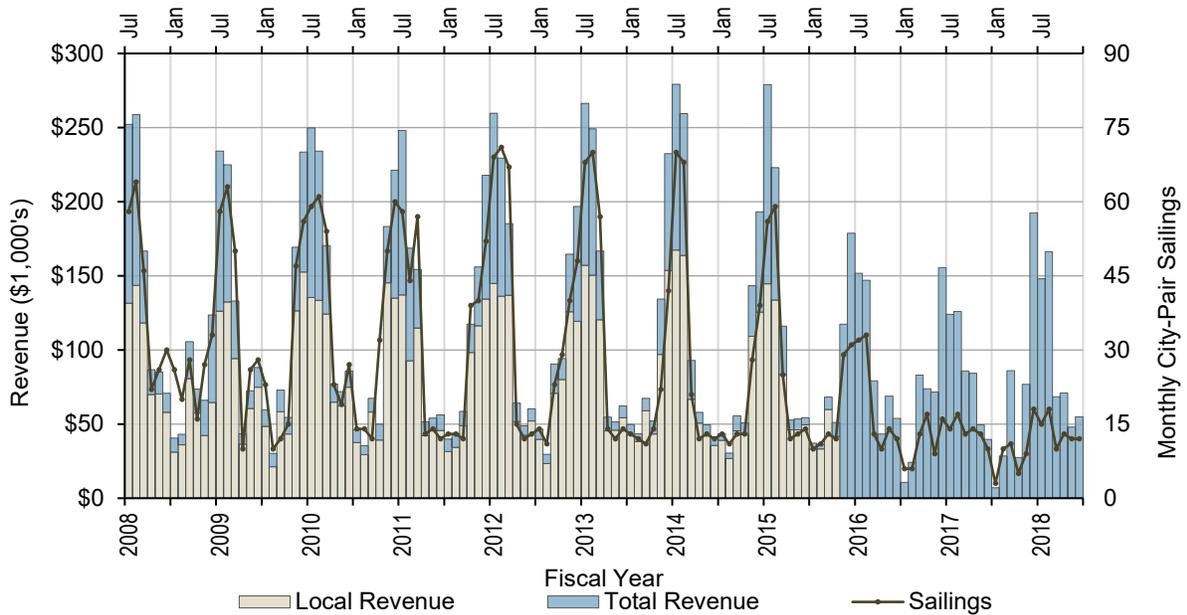
Figure 15. Monthly Local Resident and Total Juneau-Bellingham Revenues and Sailings, by Fiscal Year



Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

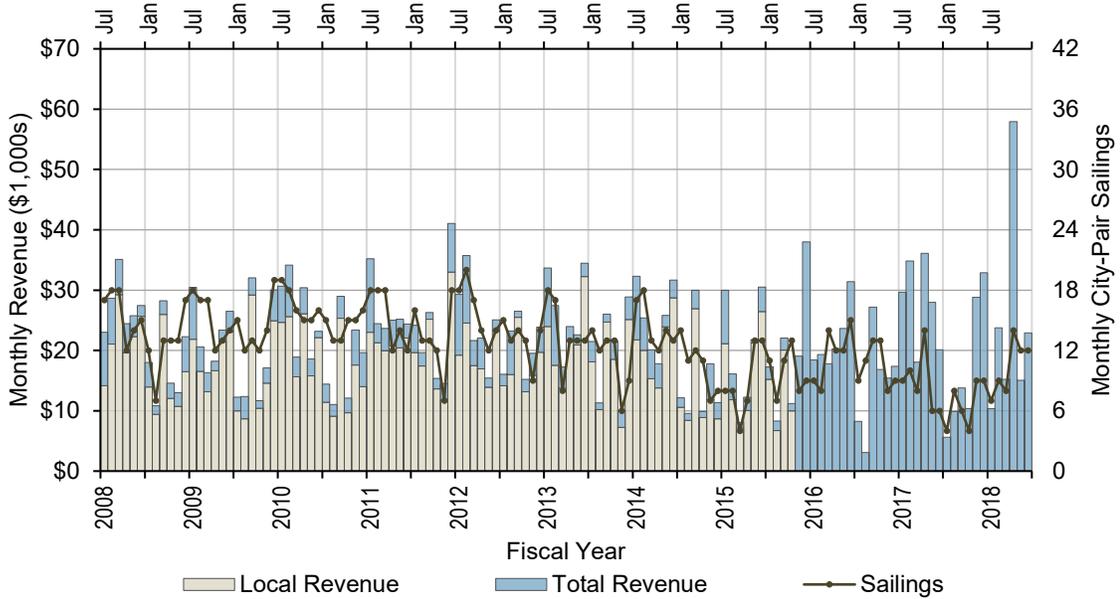
Figure 16 Monthly Local Resident and Total Sitka-Juneau Revenues and Sailings, by Fiscal Year



Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

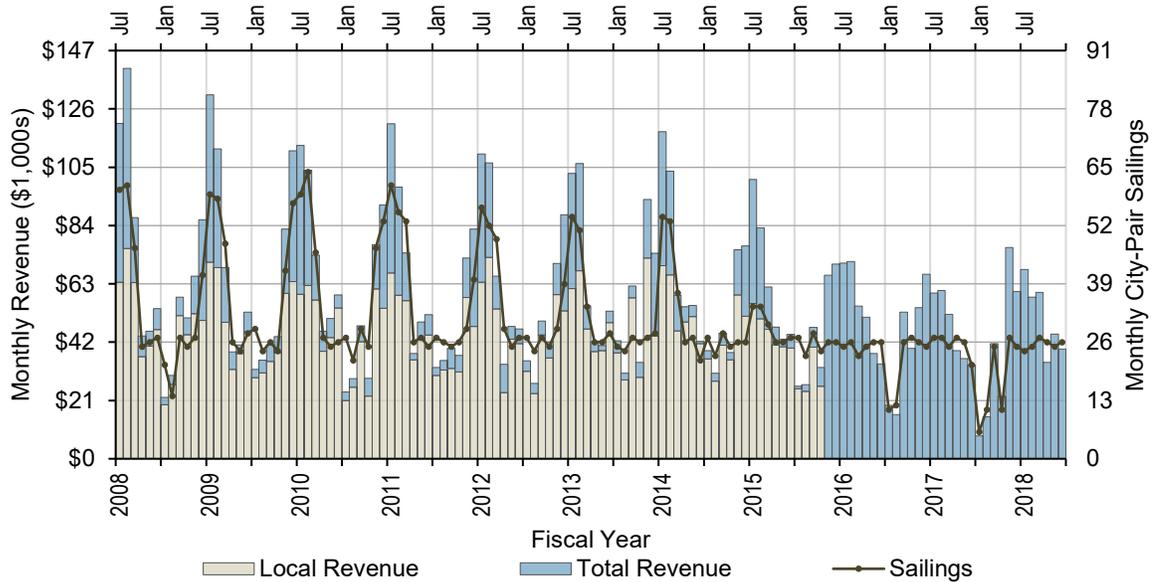
Figure 17. Monthly Local Resident and Total Kake-Juneau Revenues and Sailings, by Fiscal Year



Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

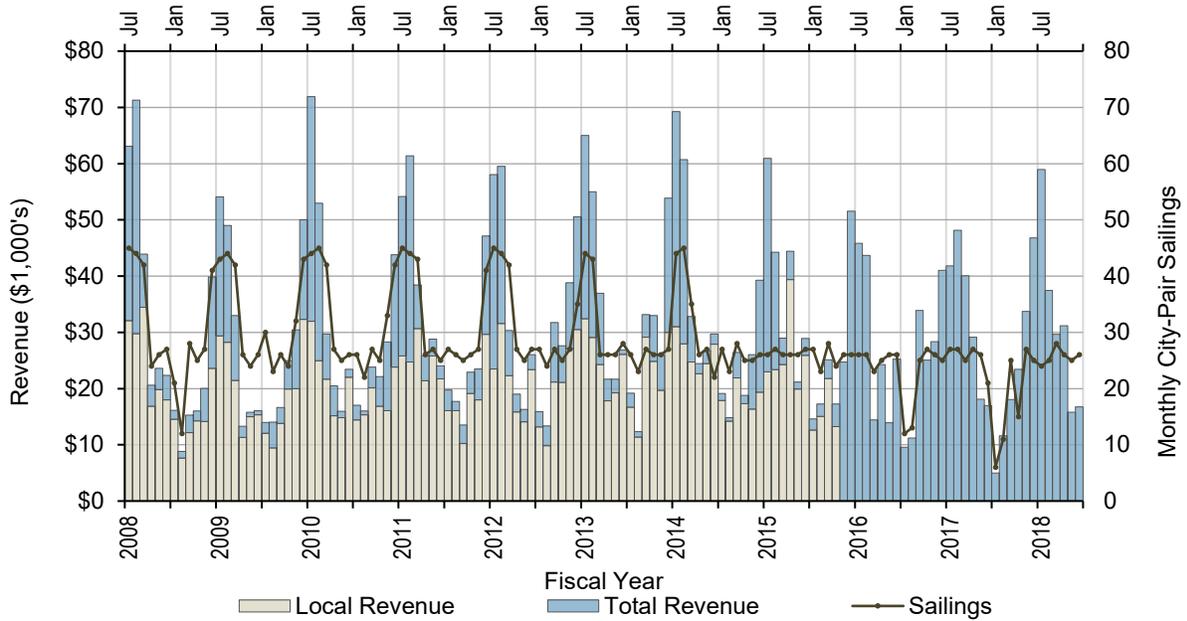
Figure 18. Monthly Local Resident and Total Petersburg-Juneau Revenues and Sailings, by Fiscal Year



Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

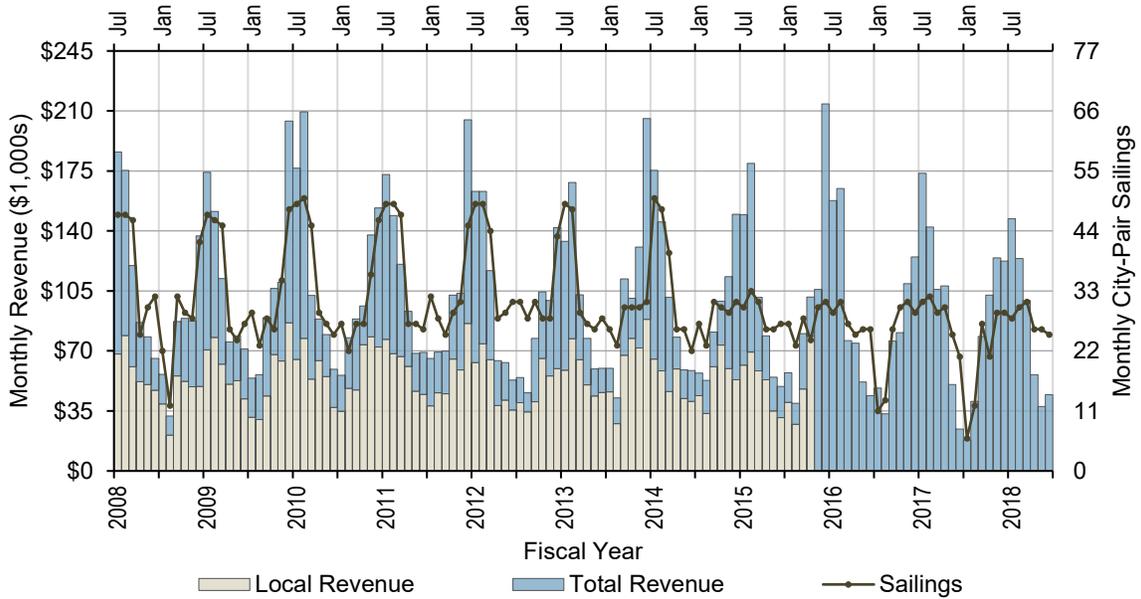
Figure 19. Monthly Local Resident and Total Wrangell-Juneau Revenues and Sailings, by Fiscal Year



Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

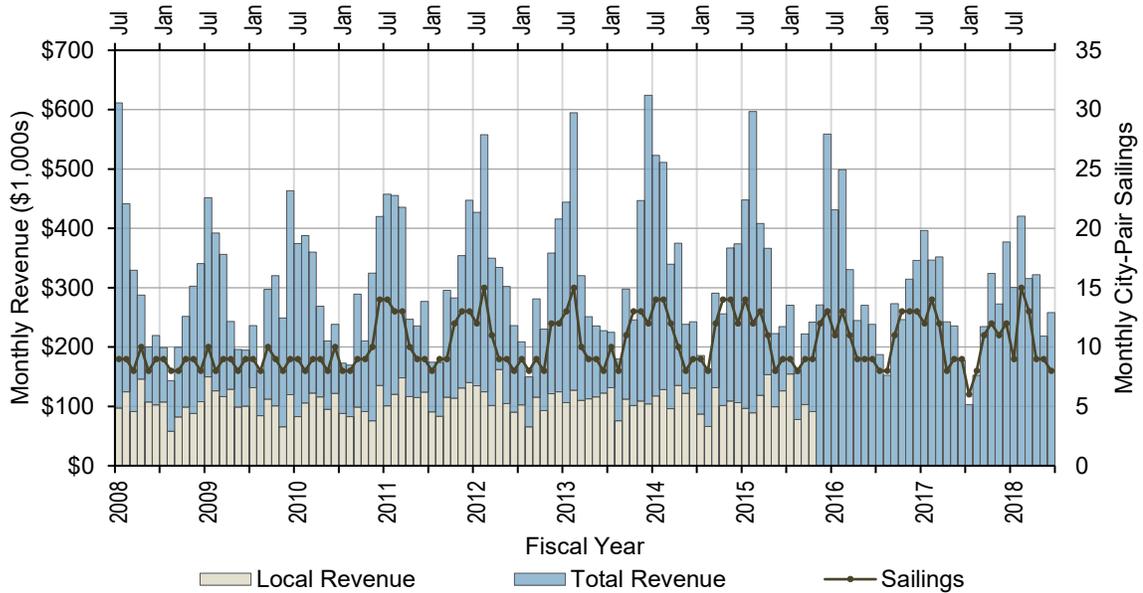
Figure 20. Monthly Local Resident and Total Ketchikan-Juneau Revenues and Sailings, by Fiscal Year



Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

Figure 21. Monthly Local Resident and Total Ketchikan-Bellingham Revenues and Sailings, by Fiscal Year



Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

Table 17 summarizes the distribution of vessel operating days for the Mainline routes over each of the peak, winter and shoulder seasonal periods. The upper portion of the table shows the number of vessel operating days while the lower portion of the table provides a percentage based on the total number of vessel operating days within the fiscal year.

Table 17. Number of Vessel Operating Days on Mainline Routes by Season with Percentages by Fiscal Year

Fiscal Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018 as % of 2009
Total Days	899	957	1,015	970	930	863	864	765	681	654	73%
Peak Season	326	362	375	352	347	331	326	256	218	207	64%
Shoulder Season	279	303	335	336	299	274	279	257	246	227	81%
Winter Season	295	292	306	283	285	258	260	252	217	220	75%
Percent of Operating Days by Season											
Peak Season	36%	38%	37%	36%	37%	38%	38%	33%	32%	32%	87%
Shoulder Season	31%	32%	33%	35%	32%	32%	32%	34%	36%	35%	112%
Winter Season	33%	31%	30%	29%	31%	30%	30%	33%	32%	34%	103%

Source: Northern Economics analysis using data from AMHS (2019).

6 Summary of Prince William Sound Routes

Historic operating data for the Prince William Sound routes are shown in Table 18, including the number of vessel operating days within the route group as well as a summary of purchased passenger, car deck, and cabin services. The passenger section includes revenues, the number of passengers who traveled, the total travel distance of passengers (represented as passenger-miles), and the average cost of travel per passenger-mile. The car deck and cabin sections present similar information, but the car deck volume is measured in units of length (feet).

The Prince William Sound route group includes AMHS segments connecting Valdez, Whittier, Cordova, and Tatitlek. As measured by revenue, the largest portion of the Prince William Sound group is segments connecting to Whittier. Residents traveling in the Prince William Sound are typically departing from or arriving at the southcentral Alaska road system. While it is possible reach Anchorage or the Kenai Peninsula driving from Valdez, traveling by AMHS to Whittier is the more common approach.

Table 18. AMHS Operating Days, Volume and Revenue in Prince William Sound by Fiscal Year

Fiscal Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018 as % of 2009
Vessel Operating Days	418	373	407	409	426	390	329	367	294	294	70%
Passenger Revenue (\$1,000s)	\$2,394	\$2,164	\$2,571	\$2,486	\$2,284	\$2,278	\$2,532	\$2,333	\$1,820	\$1,750	73%
Passengers	43,561	41,268	46,948	45,073	42,384	38,476	38,755	34,136	26,251	25,626	59%
Passenger Miles (1,000s of Pax-NM)	3,750	3,578	4,048	3,889	3,700	3,277	3,363	2,963	2,299	2,234	60%
Revenue Per Passenger Mile (\$)	\$0.64	\$0.60	\$0.64	\$0.64	\$0.62	\$0.70	\$0.75	\$0.79	\$0.79	\$0.78	123%
Car Deck Revenue (\$1,000s)	\$2,215	\$2,308	\$2,624	\$2,519	\$2,351	\$2,156	\$2,215	\$2,030	\$1,723	\$1,724	78%
Car Deck Lengths (1,000s of feet)	324	337	376	361	339	303	305	264	211	206	63%
Car Deck Length-NM (1,000s of feet-NM)	28,388	29,790	33,104	31,825	30,214	26,175	26,961	23,408	18,934	18,461	65%
Revenue per Car Deck Length-NM (\$)	\$0.078	\$0.077	\$0.079	\$0.079	\$0.078	\$0.082	\$0.082	\$0.087	\$0.091	\$0.093	120%
Total Revenue (\$1,000s)	\$4,609	\$4,473	\$5,196	\$5,004	\$4,636	\$4,434	\$4,746	\$4,363	\$3,543	\$3,474	75%
Revenue per Vessel-Day (\$/Day)	\$11,041	\$11,991	\$12,782	\$12,236	\$10,895	\$11,384	\$14,427	\$11,904	\$12,072	\$11,816	107%

Source: Northern Economics analysis using data from AMHS (2019).

Table 19 shows the Prince William Sound Route Group percentage of passenger, car deck revenues separated by residency of the ticket purchaser. Local revenues are derived from ticket purchasers who live in either the departure or arrival city, Other Alaska revenues include all other residents of Alaska, and Outside Alaska revenues include ticket purchases from residents of other states and countries. The analysis shows that most Prince William Sound route revenues are derived from non-locals, although local ticket buyers make up a larger share of car deck revenues.

Table 19. Local/Non-Local Fiscal Year Revenue by Percentages Fare Class on Prince William Sound Routes

Fare Class	Residency	2009	2010	2011	2012	2013	2014	2015	2016	Average
Passenger Revenue	Local	18%	19%	18%	18%	20%	20%	23%	28%	19%
	Other Alaska	5%	5%	4%	5%	5%	4%	4%	4%	5%
	Outside Alaska	77%	76%	77%	77%	75%	76%	73%	68%	76%
	Subtotal (\$1,000s)	\$2,394	\$2,164	\$2,571	\$2,486	\$2,284	\$2,278	\$2,532	\$1,911	\$2,387
Car Deck Revenue	Local	36%	36%	35%	35%	38%	37%	37%	40%	36%
	Other Alaska	5%	5%	5%	5%	5%	4%	4%	4%	5%
	Outside Alaska	59%	59%	61%	61%	57%	59%	59%	56%	59%
	Subtotal (\$1,000s)	\$2,215	\$2,308	\$2,624	\$2,519	\$2,351	\$2,156	\$2,215	\$1,614	\$2,341
Cabin Revenue	Local	Cabin revenue in Prince William Sound routes is minimal and therefore not reported.								
	Other Alaska									
	Outside Alaska									
	Subtotal (\$1,000s)									
Total Revenue	Local	27%	28%	27%	26%	29%	28%	30%	34%	28%
	Other Alaska	5%	5%	4%	5%	5%	4%	4%	4%	5%
	Outside Alaska	69%	67%	69%	69%	66%	68%	66%	62%	68%
	Total (\$1,000s)	\$4,609	\$4,473	\$5,196	\$5,004	\$4,636	\$4,434	\$4,746	\$3,525	\$4,728

Notes:

- 1) Residency Data have not been reported by AMHS since the implementation of its new ticketing system in May 2016.
- 2) Since data for FY 2016 do not include May and June, the average percentage calculations are a weighted average based on revenue from FY 2009 to FY 2015.

Source: Northern Economics analysis using data from AMHS (2019).

Table 20 shows Prince William Sound Route Group revenues for local and non-local ticket purchasers over different seasonal periods to account for fluctuations in travel activity and service schedules. The peak season includes June, July and August, while the winter season spans from November through March. The remaining months of September, October, April and May are considered the shoulder months. Comparing the revenues over varying seasons, we see that winter season ferry services are used primarily by locals while peak summer season services are used mostly (79-81 percent of revenues) by non-locals.

Table 20. Local/Non-Local Fiscal Year Revenue Percentages by Season on Prince William Sound Routes

Season	Residency	2009	2010	2011	2012	2013	2014	2015	2016	Average
Winter Revenue	Local	69%	61%	67%	62%	65%	62%	72%	67%	66%
	Other Alaska	6%	6%	5%	7%	6%	4%	3%	5%	5%
	Outside Alaska	25%	32%	28%	31%	29%	33%	25%	29%	29%
	Subtotal (\$1,000s)	\$525	\$564	\$516	\$463	\$576	\$573	\$583	\$699	\$543
Shoulder Revenue	Local	38%	37%	37%	40%	39%	43%	39%	44%	39%
	Other Alaska	7%	6%	7%	8%	8%	6%	7%	5%	7%
	Outside Alaska	55%	57%	56%	52%	53%	50%	55%	51%	54%
	Subtotal (\$1,000s)	\$1,110	\$1,269	\$1,487	\$1,338	\$1,233	\$973	\$1,287	\$932	\$1,243
Peak Revenue	Local	15%	16%	15%	16%	17%	17%	17%	16%	16%
	Other Alaska	4%	4%	3%	4%	4%	3%	3%	3%	4%
	Outside Alaska	81%	80%	82%	81%	79%	80%	80%	80%	80%
	Subtotal (\$1,000s)	\$2,974	\$2,639	\$3,192	\$3,204	\$2,827	\$2,888	\$2,876	\$1,894	\$2,943
Total Revenue	Local	27%	28%	27%	26%	29%	28%	30%	34%	28%
	Other Alaska	5%	5%	4%	5%	5%	4%	4%	4%	5%
	Outside Alaska	69%	67%	69%	69%	66%	68%	66%	62%	68%
	Subtotal (\$1,000s)	\$4,609	\$4,473	\$5,196	\$5,004	\$4,636	\$4,434	\$4,746	\$3,525	\$4,728

Notes:

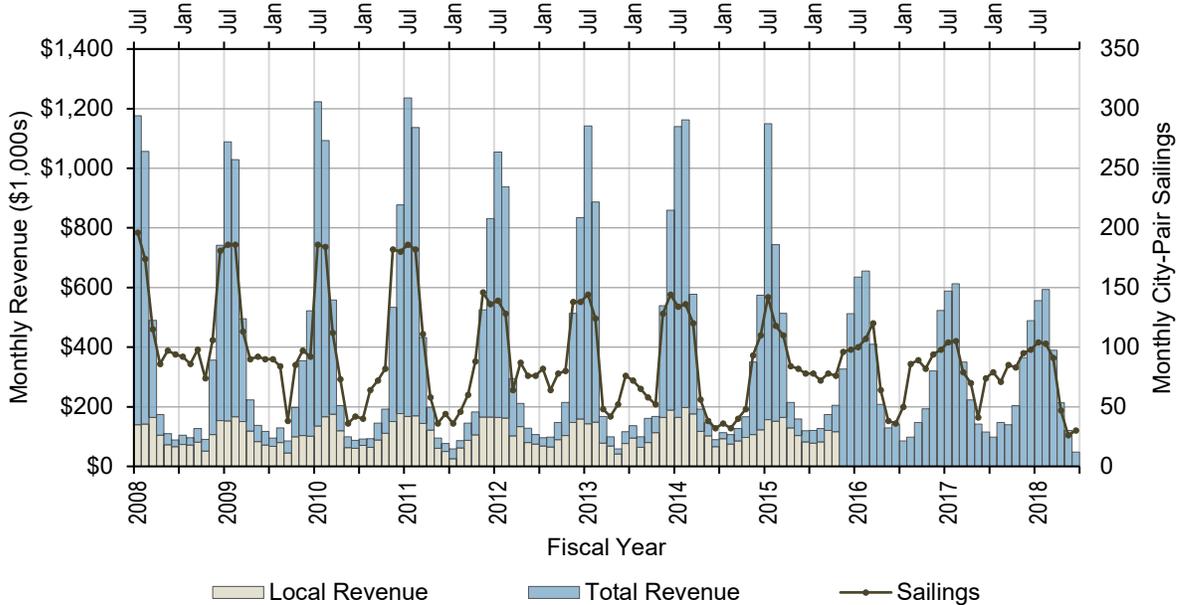
- 1) The Peak Season for AMHS is from June through August. The Winter Season runs from November through March. The Shoulder Seasons are April–May and September–October.
- 2) Residency Data have not been reported by AMHS since the implementation of its new ticketing system in May 2016.
- 3) Since data for FY 2016 do not include May and June, the average percentage calculations are a weighted average based on revenue from FY 2009 to FY 2015.

Source: Northern Economics analysis using data from AMHS (2019).

The following figures represent monthly revenue data for the Prince William Sound Route Group routes, separated by local and non-local residency when information is available. The solid line represents the number of sailings connections for all pairs of departure and arrival cities. Because of the small number of communities within the Prince William Sound route group, figures are also provided for nearly all city-pair combinations.

Figure 22 shows revenues and city-pair sailings for the entire Prince William Sound Route Group, and each of the following figures represents travel for a specific pair of departure and arrival cities. Most revenue in the winter months is from local residents, while about 80 percent of peak season revenue is from non-locals.

Figure 22. Monthly Local Resident and Total Prince William Sound Revenues and Sailings, by Fiscal Year



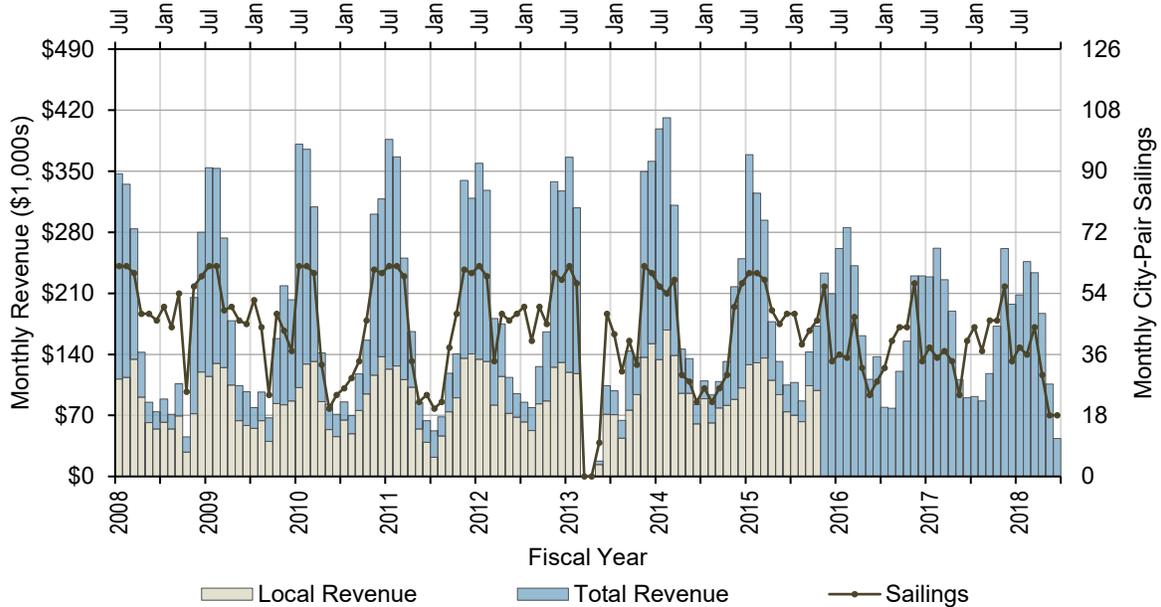
Notes:

- 1) Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.
- 2) Monthly City-Pair Sailings (the dark olive line) is the count of all combinations of origin/destination city-pairs in each vessel sailing.

Source: Northern Economics analysis using data from AMHS (2019).

Figure 23 shows monthly revenues and city-pair sailings for travel between Cordova and Whittier, with revenues separated by local and non-local resident ticket purchasers when data is available. Most revenue in the winter months is from local residents, while over half the peak season revenue is from non-locals.

Figure 23. Local Resident and Total Cordova-Whittier Revenues and Sailings, by Fiscal Year

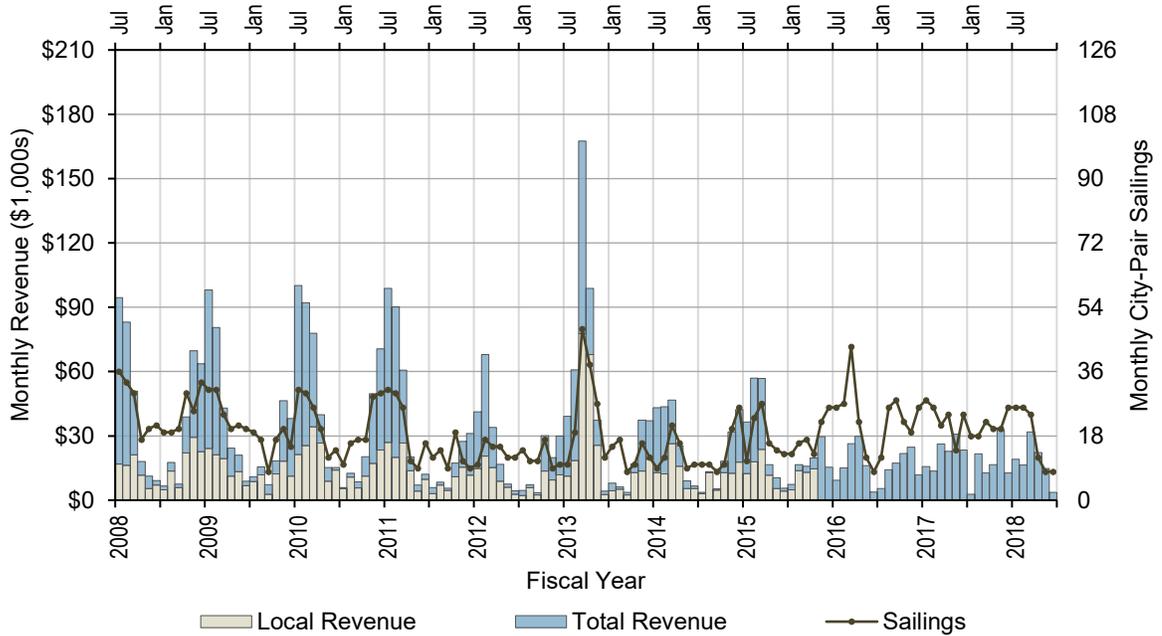


Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

Figure 24 shows monthly revenues and city-pair sailings for travel between Cordova and Valdez, with revenues separated by local and non-local resident ticket purchasers when data is available. Most revenue in the winter months is from local residents, while over half the peak season revenue is typically from non-locals. The large spike in Cordova-Valdez travel in 2013 can be linked to a temporary closure of the AMHS terminal in Whittier when repairs were being undertaken. There is also a corresponding lack of revenue and sailings in Figure 23 for Cordova-Whittier.

Figure 24. Monthly Local Resident and Total Cordova-Valdez Revenues and Sailings, by Fiscal Year

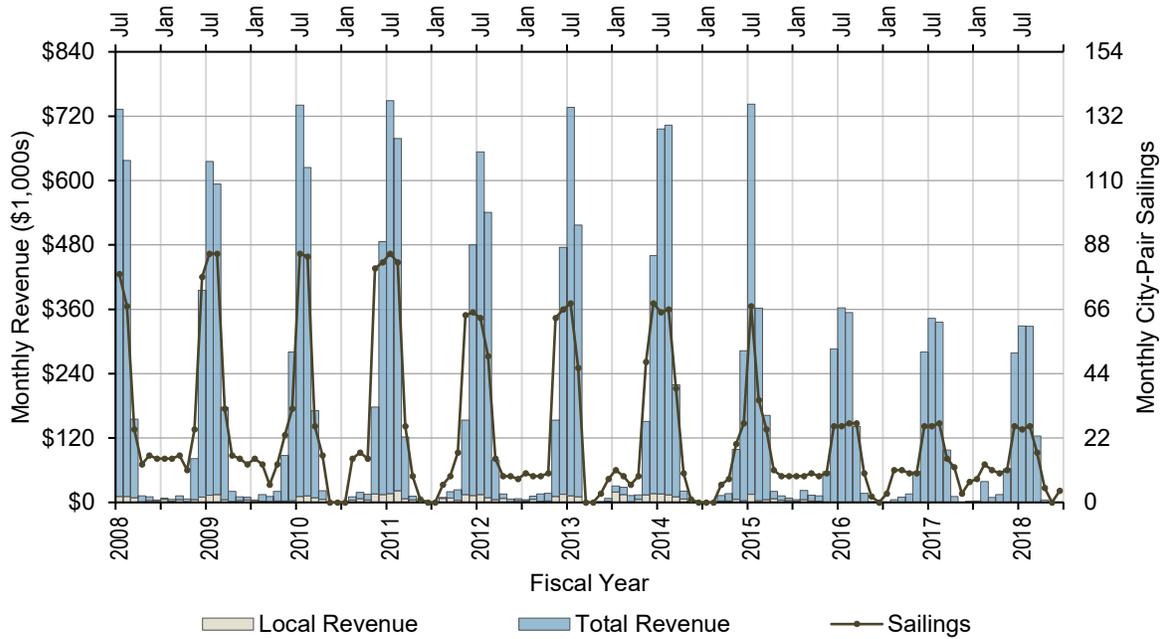


Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

Figure 25 shows monthly revenues and city-pair sailings for travel between Valdez and Whittier, with revenues separated by local and non-local resident ticket purchasers when data is available. Most revenue in the winter months is from local residents, while almost all the peak season revenue is from non-locals.

Figure 25. Monthly Local Resident and Total Valdez-Whittier Revenues and Sailings, by Fiscal Year

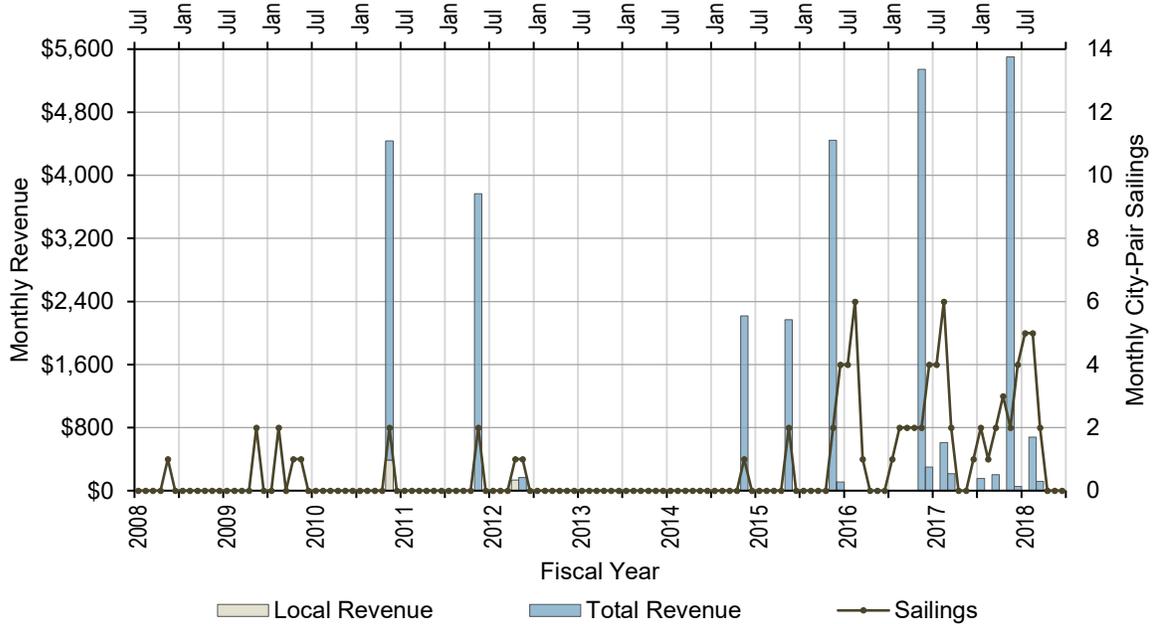


Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

Figure 26 shows monthly revenues and city-pair sailings for travel between Tatitlek and Whittier, with revenues separated by local and non-local resident ticket purchasers when data is available. There were only sailings on this route a few months per year with more sailings in recent years.

Figure 26. Monthly Local Resident and Total Tatitlek-Whittier Revenues and Sailings, by Fiscal Year



Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

Table 21 summarizes the distribution of vessel operating days within the Prince William Sound Route Group over each of the peak, winter and shoulder seasonal periods. The upper portion of the table shows the number of vessel operating days while the lower portion of the table provides a percentage based on the total number of vessel operating days within the fiscal year.

Table 21. Number of Vessel Operating Days on Prince William Sound Routes by Season with Percentages by Fiscal Year

Fiscal Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018 as % of 2009
Total Days	418	373	407	409	426	390	329	367	294	294	70%
Peak Season	173	150	178	177	165	167	147	129	92	92	53%
Shoulder Season	107	112	134	135	132	109	100	111	100	92	86%
Winter Season	139	112	95	98	129	114	82	127	102	110	79%
Percent of Operating Days by Season											
Peak Season	41%	40%	44%	43%	39%	43%	45%	35%	31%	31%	76%
Shoulder Season	26%	30%	33%	33%	31%	28%	30%	30%	34%	31%	123%
Winter Season	33%	30%	23%	24%	30%	29%	25%	35%	35%	37%	113%

Source: Northern Economics analysis using data from AMHS (2019).

7 Summary of Homer Kodiak Routes

Historic operating data for the Homer-Kodiak routes are shown in Table 22, including the number of vessel operating days within the route group as well as a summary of purchased passenger, car deck, and cabin services. The passenger section includes revenues, the number of passengers who traveled, the total travel distance of passengers (represented as passenger-miles), and the average cost of travel per passenger-mile. The car deck and cabin sections present similar information, but the car deck volume is measured in units of length (feet).

The Homer-Kodiak route group primarily provides service between Kodiak Island and the contiguous road system via Homer. In addition to serving the City of Kodiak, AMHS ferries call in Ouzinkie, Port Lions, and Old Harbor and Seldovia. The largest AMHS segments in the Homer-Kodiak route group, as measured by revenue, are by those connecting the City of Kodiak and Homer, while revenues involving the other communities have historically provided comprise \approx 16 percent of the revenue.

Table 22. AMHS Operating Days, Volume and Revenue in Homer-Kodiak Routes by Fiscal Year

Fiscal Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018 as % of 2009
Vessel Operating Days	245	294	279	272	167	207	240	258	240	230	94%
Passenger Revenue (\$1,000s)	\$910	\$997	\$964	\$960	\$796	\$724	\$1,135	\$1,204	\$1,108	\$1,008	111%
Passengers	25,502	28,855	27,546	27,033	20,700	18,320	25,973	23,892	19,441	16,859	66%
Passenger Miles (1,000s of Pax-NM)	2,584	2,986	2,838	2,825	2,217	1,886	2,633	2,368	1,911	1,648	64%
Revenue Per Passenger Mile (\$)	\$0.35	\$0.33	\$0.34	\$0.34	\$0.36	\$0.38	\$0.43	\$0.51	\$0.58	\$0.61	174%
Car Deck Revenue (\$1,000s)	\$1,767	\$2,108	\$1,975	\$2,025	\$1,621	\$1,615	\$2,043	\$2,111	\$1,872	\$1,878	106%
Car Deck Lengths (1,000s of feet)	215	255	239	240	187	182	228	220	181	167	78%
Car Deck Length-NM (1,000s of feet-NM)	20,847	25,505	23,623	24,294	18,979	18,575	23,370	22,027	17,791	16,725	80%
Revenue per Car Deck Length-NM (\$)	\$0.085	\$0.083	\$0.084	\$0.083	\$0.085	\$0.087	\$0.087	\$0.096	\$0.105	\$0.112	132%
Cabin Revenue (\$1,000s)	\$382	\$466	\$431	\$444	\$318	\$299	\$411	\$431	\$360	\$351	92%
Cabins	4,601	5,481	5,075	5,244	4,139	3,702	4,794	4,777	3,599	3,251	71%
Cabin Miles (1,000s of Cabin Miles)	622	742	686	706	560	500	646	641	484	438	70%
Revenue per Cabin Mile (\$)	\$0.61	\$0.63	\$0.63	\$0.63	\$0.57	\$0.60	\$0.64	\$0.67	\$0.74	\$0.80	130%
Total Revenue (\$1,000s)	\$3,059	\$3,570	\$3,371	\$3,430	\$2,734	\$2,638	\$3,588	\$3,746	\$3,339	\$3,237	106%
Revenue per Vessel-Day (\$/Day)	\$12,511	\$12,143	\$12,082	\$12,609	\$16,421	\$12,744	\$14,983	\$14,521	\$13,942	\$14,073	112%

Source: Northern Economics analysis using data from AMHS (2019).

Table 23 shows the Homer-Kodiak Route Group percentage of passenger, car deck, and cabin revenues separated by residency of the ticket purchaser. Local revenues are derived from ticket purchasers who live in either the departure or arrival city, Other Alaska revenues include all other residents of Alaska, and Outside Alaska revenues include ticket purchases from residents of other states and countries.

Table 23. Local/Non-Local Fiscal Year Revenue Percentages by Fare Class on Homer-Kodiak Routes

Fare Class	Residency	2009	2010	2011	2012	2013	2014	2015	2016	Average
Passenger Revenue	Local	47%	48%	47%	48%	51%	57%	51%	57%	50%
	Other Alaska	4%	4%	3%	3%	3%	3%	3%	3%	3%
	Outside Alaska	49%	48%	50%	49%	46%	40%	46%	40%	47%
	Subtotal (\$1,000s)	\$910	\$997	\$964	\$960	\$796	\$724	\$1,135	\$977	\$926
Car Deck Revenue	Local	43%	44%	44%	45%	43%	45%	41%	43%	44%
	Other Alaska	4%	4%	4%	3%	3%	3%	3%	2%	4%
	Outside Alaska	52%	52%	52%	52%	54%	52%	56%	55%	53%
	Subtotal (\$1,000s)	\$1,767	\$2,108	\$1,975	\$2,025	\$1,621	\$1,615	\$2,043	\$1,715	\$1,879
Cabin Revenue	Local	49%	50%	51%	52%	52%	56%	51%	56%	51%
	Other Alaska	5%	5%	5%	4%	4%	4%	4%	3%	5%
	Outside Alaska	46%	45%	44%	44%	44%	39%	45%	41%	44%
	Subtotal (\$1,000s)	\$382	\$466	\$431	\$444	\$318	\$299	\$411	\$359	\$393
Total Revenue	Local	45%	46%	46%	46%	46%	50%	45%	49%	46%
	Other Alaska	4%	4%	4%	3%	3%	3%	3%	3%	4%
	Outside Alaska	50%	50%	50%	50%	50%	47%	52%	49%	50%
	Total (\$1,000s)	\$3,059	\$3,570	\$3,371	\$3,430	\$2,734	\$2,638	\$3,588	\$3,051	\$3,199

Notes:

- 1) Residency Data have not been reported by AMHS since the implementation of its new ticketing system in May 2016.
- 2) Since data for FY 2016 do not include May and June, the average percentage calculations are a weighted average based on revenue from FY 2009 to FY 2015.

Source: Northern Economics analysis using data from AMHS (2019).

Table 24 shows Homer-Kodiak Route Group revenues for local and non-local ticket purchasers over different seasonal periods to account for fluctuations in travel activity and service schedules. The peak season includes June, July and August, while the winter season spans from November through March. The remaining months of September, October, April and May are considered the shoulder months.

Table 24. Local/Non-Local Fiscal Year Revenue Percentages by Season on Homer-Kodiak Routes

Season	Residency	2009	2010	2011	2012	2013	2014	2015	2016	Average
Winter Revenue	Local	56%	54%	55%	55%	51%	53%	52%	55%	54%
	Other Alaska	6%	4%	5%	4%	4%	3%	3%	3%	4%
	Outside Alaska	38%	42%	40%	41%	45%	44%	45%	42%	42%
	Subtotal (\$1,000s)	\$450	\$811	\$683	\$784	\$494	\$849	\$1,017	\$1,098	\$727
Shoulder Revenue	Local	46%	46%	47%	47%	49%	50%	46%	53%	47%
	Other Alaska	4%	5%	4%	4%	3%	4%	4%	3%	4%
	Outside Alaska	50%	49%	49%	50%	48%	46%	50%	44%	49%
	Subtotal (\$1,000s)	\$1,243	\$1,323	\$1,241	\$1,289	\$1,086	\$1,019	\$1,197	\$960	\$1,200
Peak Revenue	Local	41%	41%	41%	42%	42%	46%	40%	38%	42%
	Other Alaska	4%	4%	3%	3%	3%	3%	2%	2%	3%
	Outside Alaska	55%	55%	56%	56%	55%	51%	58%	60%	55%
	Subtotal (\$1,000s)	\$1,366	\$1,436	\$1,447	\$1,356	\$1,153	\$770	\$1,374	\$994	\$1,272
Total Revenue	Local	45%	46%	46%	46%	46%	50%	45%	49%	46%
	Other Alaska	4%	4%	4%	3%	3%	3%	3%	3%	4%
	Outside Alaska	50%	50%	50%	50%	50%	47%	52%	49%	50%
	Total (\$1,000s)	\$3,059	\$3,570	\$3,371	\$3,430	\$2,734	\$2,638	\$3,588	\$3,051	\$3,199

Notes:

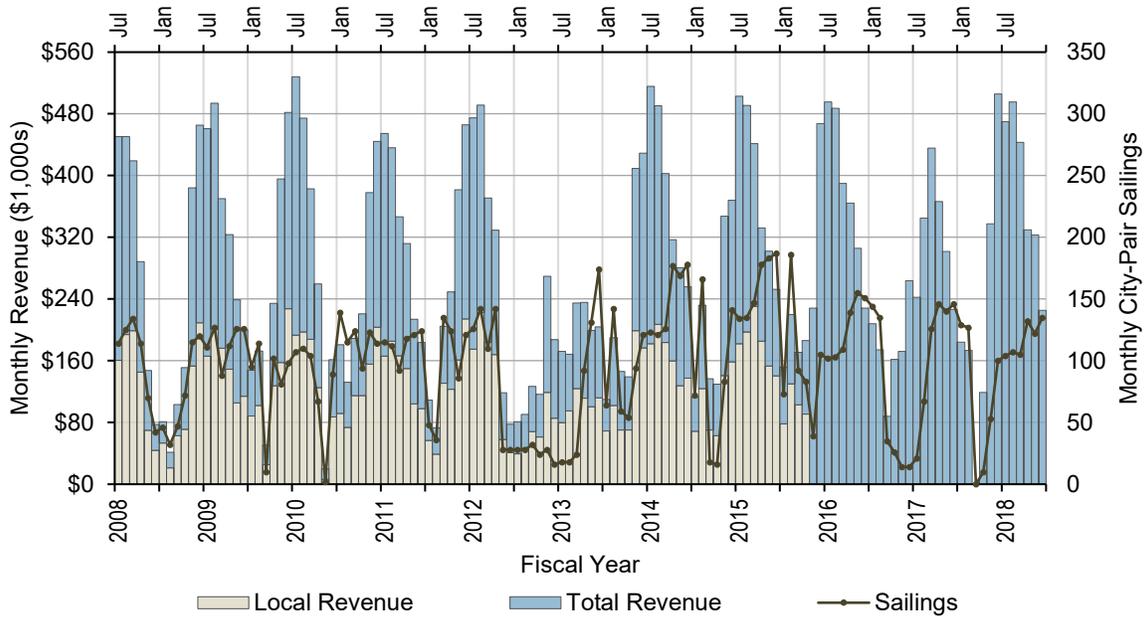
- 1) The Peak Season for AMHS is from June through August. The Winter Season runs from November through March. The Shoulder Seasons are April–May and September–October.
- 2) Residency Data have not been reported by AMHS since the implementation of its new ticketing system in May 2016.
- 3) Since data for FY 2016 do not include May and June, the average percentage calculations are a weighted average based on revenue from FY 2009 to FY 2015.

Source: Northern Economics analysis using data from AMHS (2019).

The following figures represent monthly revenue data for the Homer-Kodiak Route Group routes, separated by local and non-local residency when information is available. The solid line represents the number of sailings connections for all pairs of departure and arrival cities. Because of the small number of communities within the Homer-Kodiak route group, figures are also provided for nearly all city-pair combinations.

Figure 27 shows revenues and city-pair sailings for the entire Homer-Kodiak Route Group, and each of the following figures represents travel for a specific pair of departure and arrival cities. Most revenue in the winter months is from local residents, while just over half the peak season revenue is from non-locals. The noticeable decline in revenue and sailings 2012–2013 corresponds to a major overhaul for the *Tustumena*. This same effect is seen later in Figure 28 through Figure 33 on the following pages.

Figure 27. Monthly Local Resident and Total Homer-Kodiak Route Group Revenues and Sailings, by Fiscal Year



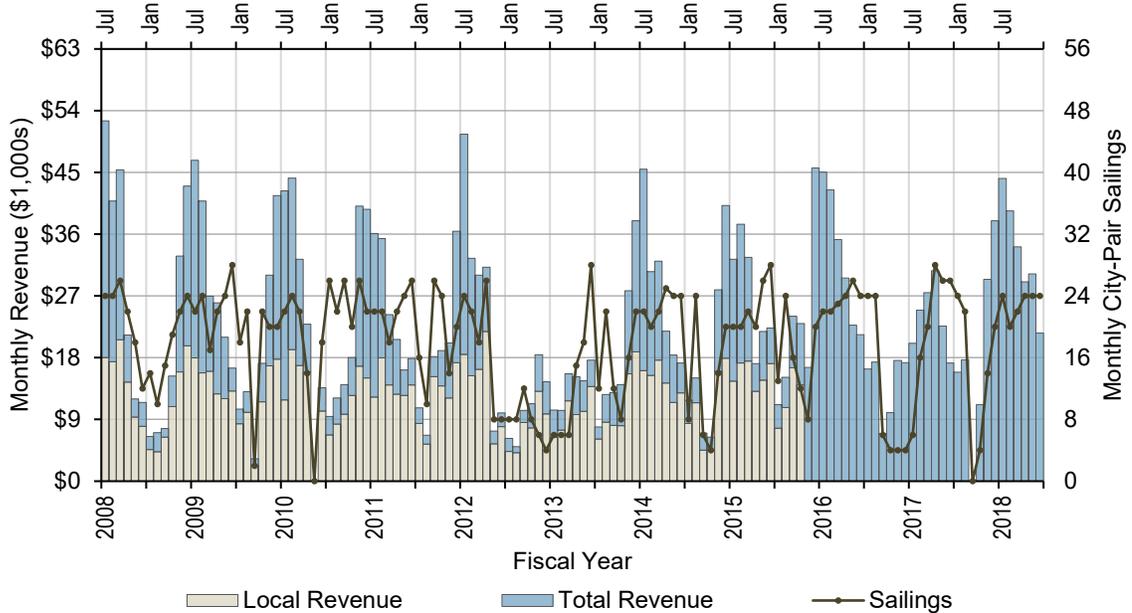
Notes:

- 1) Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016. The *Tustumena* was out of service for an extended period 2012–2013 causing the noticeable drop in revenue and sailings.
- 2) Monthly City-Pair Sailings (the dark olive line) is the count of all combinations of origin/destination city-pairs in each vessel sailing.

Source: Northern Economics analysis using data from AMHS (2019).

Figure 28 shows monthly revenues and city-pair sailings for travel between Homer and Seldovia, with revenues separated by local and non-local resident ticket purchasers when data is available. Most revenue in the winter months is from local residents, while just over half the peak season revenue is from non-locals for most years.

Figure 28. Monthly Local Resident and Total Homer-Seldovia Revenues and Sailings, by Fiscal Year

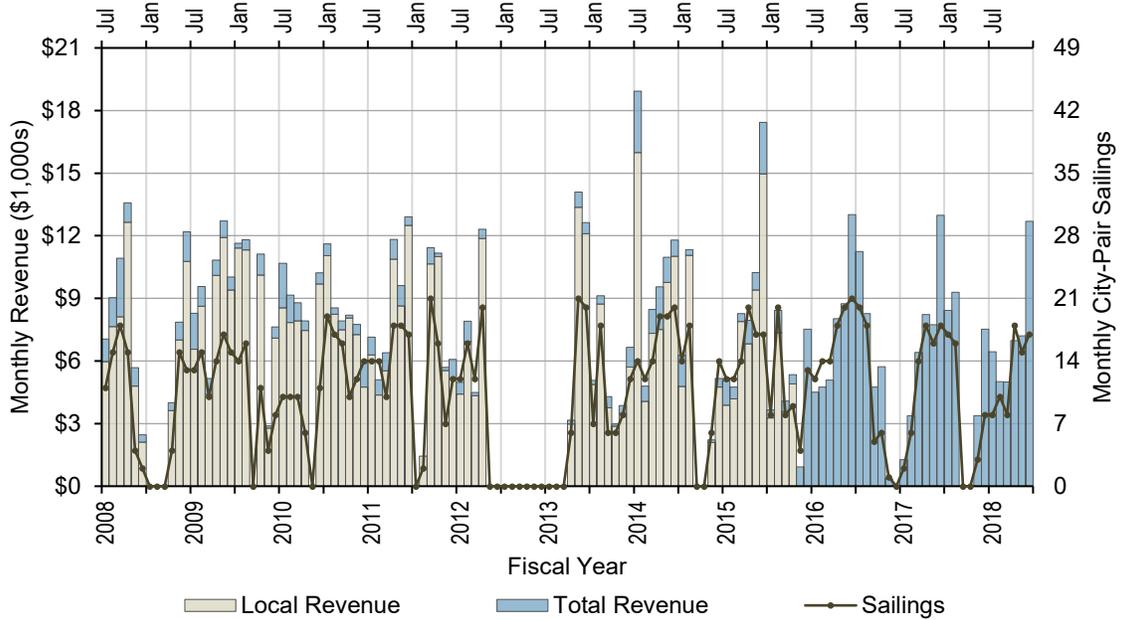


Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016. The *Tustumena* was out of service for an extended period 2012–2013 causing the noticeable drop in revenue and sailings.

Source: Northern Economics analysis using data from AMHS (2019).

Figure 29 shows monthly revenues and city-pair sailings for travel between Kodiak and Port Lions, with revenues separated by local and non-local resident ticket purchasers when data is available. Across all seasons, most revenue is from local residents.

Figure 29. Monthly Local Resident and Total Kodiak-Port Lions Revenues and Sailings, by Fiscal Year

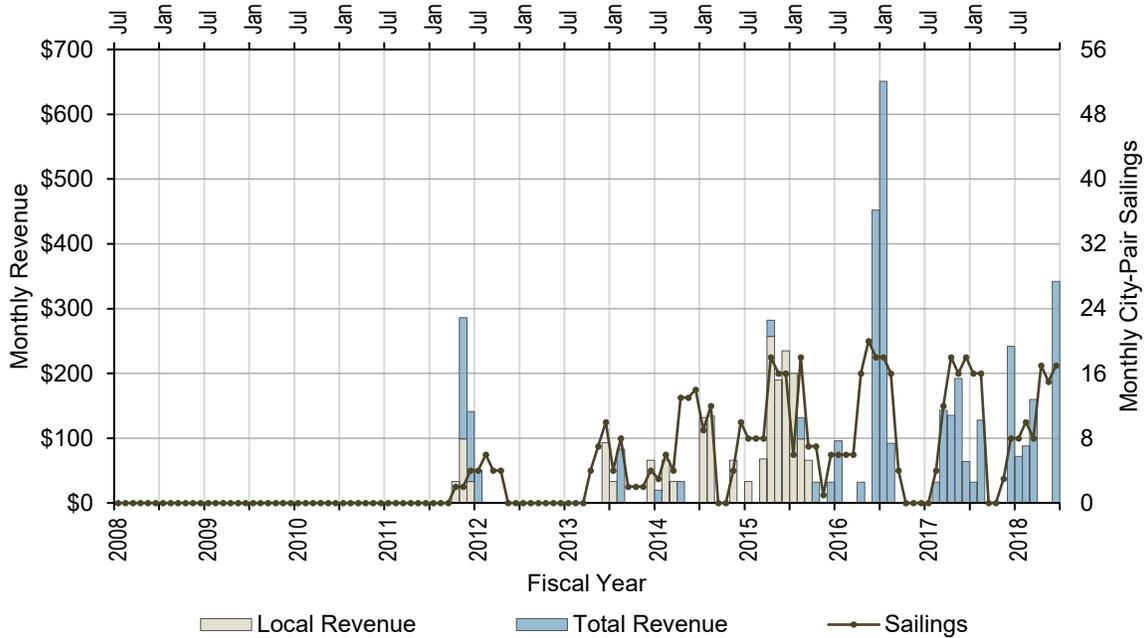


Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016. The *Tustumena* was out of service for an extended period 2012–2013 causing the lack of service to Port Lions.

Source: Northern Economics analysis using data from AMHS (2019).

Figure 31 shows monthly revenues and city-pair sailings for travel between Ouzinkie and Port Lions, with revenues separated by local and non-local resident ticket purchasers when data is available. For the few years with sailings data for this route, most revenue was from local residents.

Figure 31. Monthly Local Resident and Total Ouzinkie-Port Lions Revenues and Sailings, by Fiscal Year

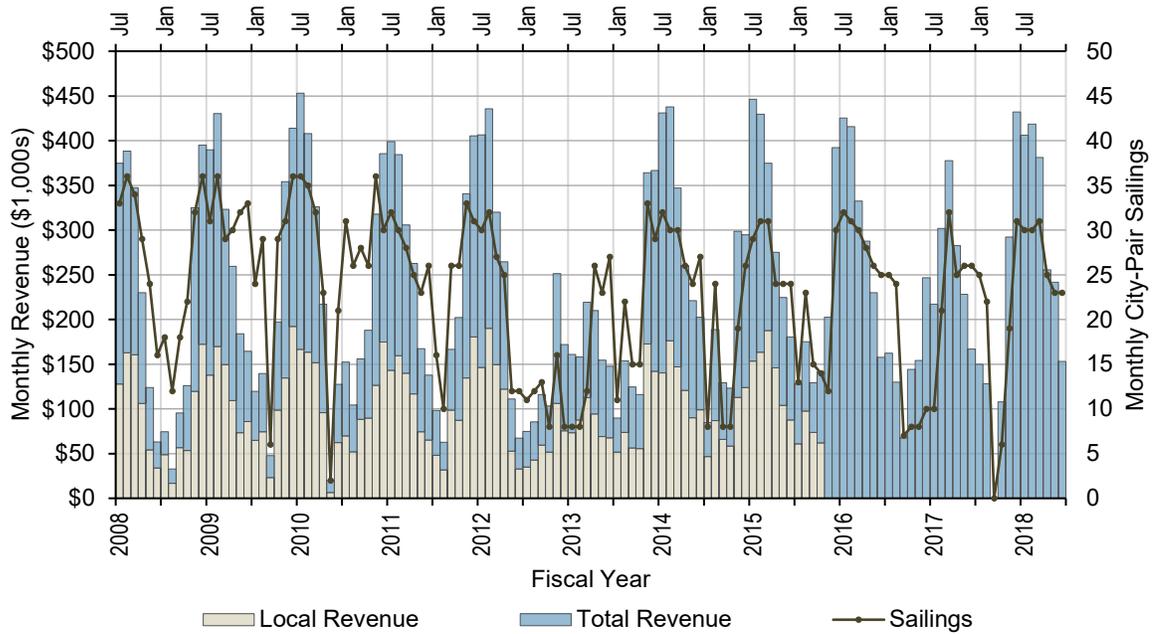


Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016. The *Tustumena* was out of service for an extended period 2012–2013 causing the lack of service between Ouzinkie and Port Lions.

Source: Northern Economics analysis using data from AMHS (2019).

Figure 32 shows monthly revenues and city-pair sailings for travel between Kodiak and Homer in either direction, with revenues separated by local and non-local resident ticket purchasers when data is available. About half or just over half of revenue in the winter months is from local residents, while over half of the peak summer season revenue is from non-locals.

Figure 32. Monthly Local Resident and Total Kodiak-Homer Revenues and Sailings, by Fiscal Year

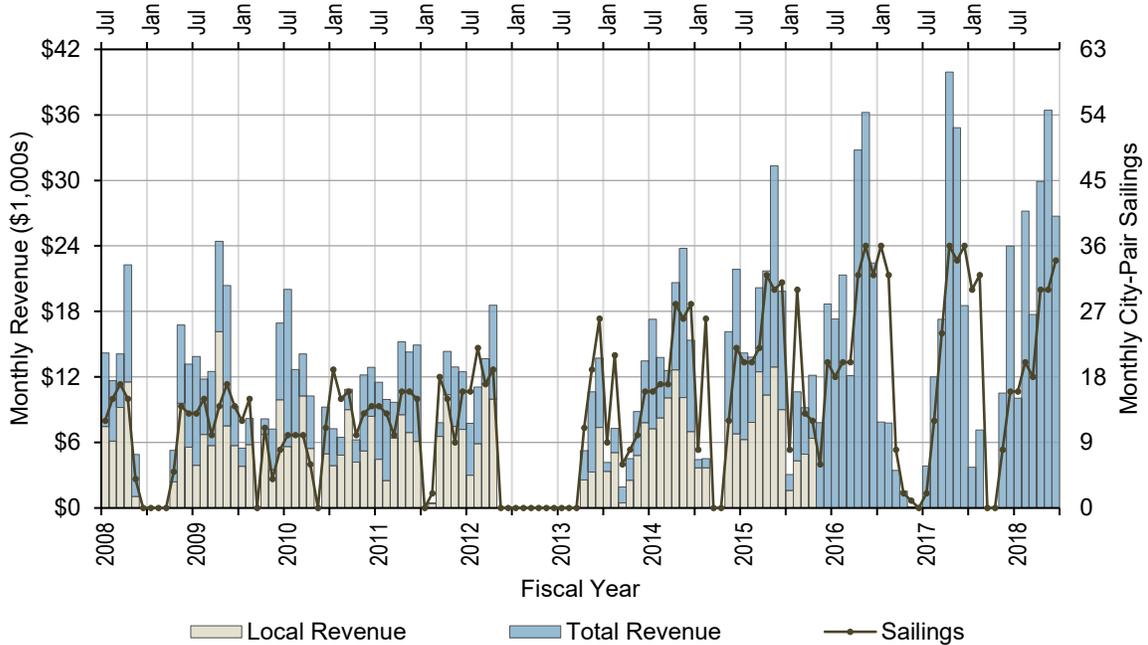


Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016. The *Tustumena* was out of service for an extended period 2012–2013 causing the noticeable drop in revenue and sailings.

Source: Northern Economics analysis using data from AMHS (2019).

Figure 33 shows monthly revenues and city-pair sailings for travel between Homer and either Ouzinkie or Port Lions, with revenues separated by local and non-local resident ticket purchasers when data is available. Most revenue in the winter months is from local residents, the peak season revenue is more evenly split between local and non-local revenue.

Figure 33. Monthly Local Resident and Total Revenues and Sailings Between Homer and Ouzinkie or Port Lions, by Fiscal Year



Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016. The *Tustumena* was out of service for an extended period 2012–2013 causing the lack of service to Ouzinkie.

Source: Northern Economics analysis using data from AMHS (2019).

Table 25 summarizes the distribution of vessel operating days within the Homer-Kodiak Route Group over each of the peak, winter and shoulder seasonal periods. The upper portion of the table shows the number of vessel operating days while the lower portion of the table provides a percentage based on the total number of vessel operating days within the fiscal year.

Table 25. Number of Vessel Operating Days on Homer-Kodiak Routes by Season with Percentages by Fiscal Year

Fiscal Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018 as % of 2009
Total Days	245	294	279	272	167	207	240	258	240	230	94%
Peak Season	84	81	76	67	49	31	65	63	49	43	51%
Shoulder Season	100	100	94	97	66	65	70	78	64	70	70%
Winter Season	62	113	110	109	52	112	105	117	127	117	190%
Percent of Operating Days by Season											
Peak Season	34%	28%	27%	25%	29%	15%	27%	24%	20%	19%	55%
Shoulder Season	41%	34%	34%	35%	39%	31%	29%	30%	27%	30%	75%
Winter Season	25%	38%	39%	40%	31%	54%	44%	45%	53%	51%	202%

Source: Northern Economics analysis using data from AMHS (2019).

8 Summary of Southwest Routes

Historic operating data for the Southwest routes are shown in Table 26, including the number of vessel operating days within the route group as well as a summary of purchased passenger, car deck, and cabin services. The passenger section includes revenues, the number of passengers who traveled, the total travel distance of passengers (represented as passenger-miles), and the average cost of travel per passenger-mile. The car deck and cabin sections present similar information, but the car deck volume is measured in units of length (feet).

The Southwest route groups include a variety of sailings that provide service to communities along the Aleutian Chain, connecting them to Kodiak and Homer. In all, the Southwest route group includes AMHS service to 12 communities. This route group is the smallest of the eight groups defined in this study, as measured by revenue. The largest segments within the Southwest route group are those connecting Unalakleet to Homer.

Table 26. AMHS Operating Days, Volume and Revenue on Southwest Routes by Fiscal Year

Fiscal Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018 as % of 2009
Vessel Operating Days	36	53	66	76	48	36	55	56	41	39	107%
Passenger Revenue (\$1,000s)	\$238	\$255	\$348	\$396	\$254	\$184	\$357	\$333	\$240	\$252	106%
Passengers	2,016	2,226	3,021	3,598	2,367	1,425	2,696	2,503	1,613	1,597	79%
Passenger Miles (1,000s of Pax-NM)	607	661	915	1,060	707	491	918	806	554	565	93%
Revenue Per Passenger Mile (\$)	\$0.39	\$0.39	\$0.38	\$0.37	\$0.36	\$0.37	\$0.39	\$0.41	\$0.43	\$0.45	114%
Car Deck Revenue (\$1,000s)	\$256	\$294	\$391	\$481	\$344	\$288	\$329	\$352	\$233	\$364	142%
Car Deck Lengths (1,000s of feet)	9	10	13	16	13	9	11	12	6	9	97%
Car Deck Length-NM (1,000s of feet-NM)	3,658	4,313	5,416	6,503	4,849	4,112	4,596	4,761	2,783	4,032	110%
Revenue per Car Deck Length-NM (\$)	\$0.070	\$0.068	\$0.072	\$0.074	\$0.071	\$0.070	\$0.072	\$0.074	\$0.084	\$0.090	129%
Cabin Revenue (\$1,000s)	\$77	\$101	\$145	\$175	\$121	\$81	\$144	\$137	\$98	\$124	161%
Cabins	350	454	686	775	572	345	580	512	328	400	114%
Cabin Miles (1,000s of Cabin Miles)	151	199	286	337	248	164	280	255	168	211	140%
Revenue per Cabin Mile (\$)	\$0.51	\$0.51	\$0.51	\$0.52	\$0.49	\$0.50	\$0.51	\$1.10	\$0.58	\$0.59	116%
Total Revenue (\$1,000s)	\$571	\$650	\$884	\$1,052	\$718	\$553	\$830	\$822	\$571	\$740	129%
Revenue per Vessel-Day (\$/Day)	\$15,872	\$12,258	\$13,388	\$13,932	\$15,116	\$15,370	\$15,229	\$14,803	\$14,090	\$19,212	121%

Source: Northern Economics analysis using data from AMHS (2019).

Table 27 shows the Southwest Route Group percentage of passenger, car deck, and cabin revenues separated by residency of the ticket purchaser. Local revenues are derived from ticket purchasers who live in either the departure or arrival city, Other Alaska revenues include all other residents of Alaska, and Outside Alaska revenues include ticket purchases from residents of other states and countries.

Table 27. Local/Non-Local Fiscal Year Revenue Percentages by Fare Class on Southwest Routes

Fare Class	Residency	2009	2010	2011	2012	2013	2014	2015	2016	Average
Passenger Revenue	Local	33%	36%	37%	35%	36%	42%	32%	36%	35%
	Other Alaska	7%	5%	6%	7%	7%	5%	6%	5%	6%
	Outside Alaska	60%	59%	57%	58%	57%	53%	62%	59%	58%
	Subtotal (\$1,000s)	\$238	\$255	\$348	\$396	\$254	\$184	\$357	\$227	\$290
Car Deck Revenue	Local	44%	50%	50%	54%	49%	44%	46%	52%	49%
	Other Alaska	7%	6%	7%	4%	5%	4%	5%	4%	5%
	Outside Alaska	50%	44%	43%	42%	45%	52%	49%	44%	46%
	Subtotal (\$1,000s)	\$256	\$294	\$391	\$481	\$344	\$288	\$329	\$232	\$340
Cabin Revenue	Local	30%	34%	34%	29%	32%	32%	18%	24%	29%
	Other Alaska	9%	5%	7%	7%	9%	5%	6%	6%	7%
	Outside Alaska	61%	61%	59%	65%	59%	63%	76%	70%	64%
	Subtotal (\$1,000s)	\$77	\$101	\$145	\$175	\$121	\$81	\$144	\$100	\$121
Total Revenue	Local	37%	42%	42%	42%	42%	42%	35%	40%	40%
	Other Alaska	7%	6%	7%	5%	7%	5%	6%	5%	6%
	Outside Alaska	56%	53%	51%	52%	52%	54%	59%	55%	54%
	Total (\$1,000s)	\$571	\$650	\$884	\$1,052	\$718	\$553	\$830	\$559	\$751

Notes:

- 1) Residency Data have not been reported by AMHS since the implementation of its new ticketing system in May 2016.
- 2) Since data for FY 2016 do not include May and June, the average percentage calculations are a weighted average based on revenue from FY 2009 to FY 2015.

Source: Northern Economics analysis using data from AMHS (2019).

Table 28 shows Southwest Route Group revenues for local and non-local ticket purchasers over different seasonal periods to account for fluctuations in travel activity and service schedules. The peak season includes June, July and August, while the winter season spans from November through March. The remaining months of September, October, April and May are considered the shoulder months.

Table 28. Local/Non-Local Fiscal Year Revenue Percentages by Season on Southwest Routes

Season	Residency	2009	2010	2011	2012	2013	2014	2015	2016	Average
Winter Season Revenue	Local	AMHS does not provide service to its Southwest Routes during the Winter Season								
	Other Alaska									
	Outside Alaska									
	Subtotal (\$1,000s)									
Shoulder Season Revenue	Local	50%	51%	48%	52%	45%	43%	42%	44%	48%
	Other Alaska	7%	6%	7%	6%	10%	5%	6%	7%	7%
	Outside Alaska	43%	42%	46%	42%	46%	51%	52%	49%	46%
	Subtotal (\$1,000s)	\$233	\$318	\$388	\$442	\$306	\$387	\$264	\$151	\$334
Peak Season Revenue	Local	28%	33%	38%	35%	39%	37%	32%	39%	35%
	Other Alaska	7%	5%	7%	5%	4%	3%	6%	4%	5%
	Outside Alaska	65%	62%	56%	60%	56%	60%	62%	57%	60%
	Subtotal (\$1,000s)	\$338	\$331	\$495	\$610	\$412	\$166	\$566	\$408	\$417
Total Revenue	Local	37%	42%	42%	42%	42%	42%	35%	40%	40%
	Other Alaska	7%	6%	7%	5%	7%	5%	6%	5%	6%
	Outside Alaska	56%	53%	51%	52%	52%	54%	59%	55%	54%
	Total (\$1,000s)	\$571	\$650	\$884	\$1,052	\$718	\$553	\$830	\$559	\$751

Notes:

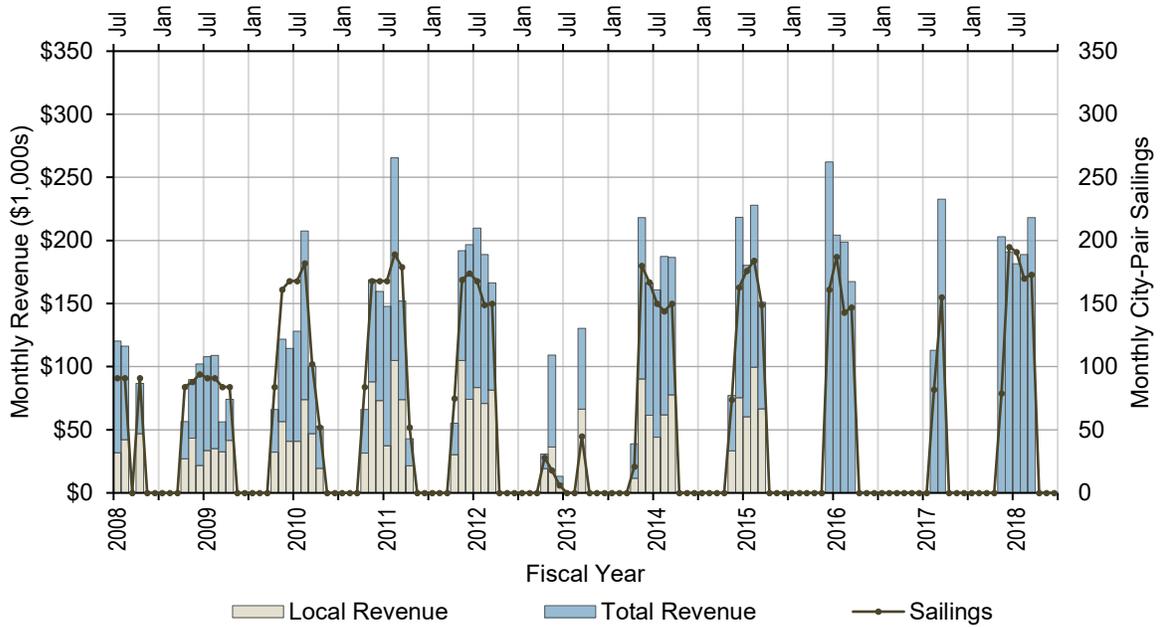
- 1) The Peak Season for AMHS is from June through August. The Winter Season runs from November through March. The Shoulder Seasons are April–May and September–October.
- 2) Residency Data have not been reported by AMHS since the implementation of its new ticketing system in May 2016.
- 3) Since data for FY 2016 do not include May and June, the average percentage calculations are a weighted average based on revenue from FY 2009 to FY 2015.

Source: Northern Economics analysis using data from AMHS (2019).

The following figures represent monthly revenue data for the Southwest Route Group routes, separated by local and non-local residency when information is available. The solid line represents the number of sailings connections for all pairs of departure and arrival cities.

Figure 34 shows revenues and city-pair sailings for the entire Southwest Route Group, and each of the following figures represents travel for a specific pair of departure and arrival cities. Revenue during the shoulder months is split relatively evenly between local residents and non-locals, while over half the peak season revenue is from non-locals. Note that each time a ferry sails from Homer to Unalaska there may be as many as 55 different origin/destination city-pair sailings depending on the number of stops en route.

Figure 34. Monthly Local Resident and Total Southwest Revenues and Sailings, by Fiscal Year



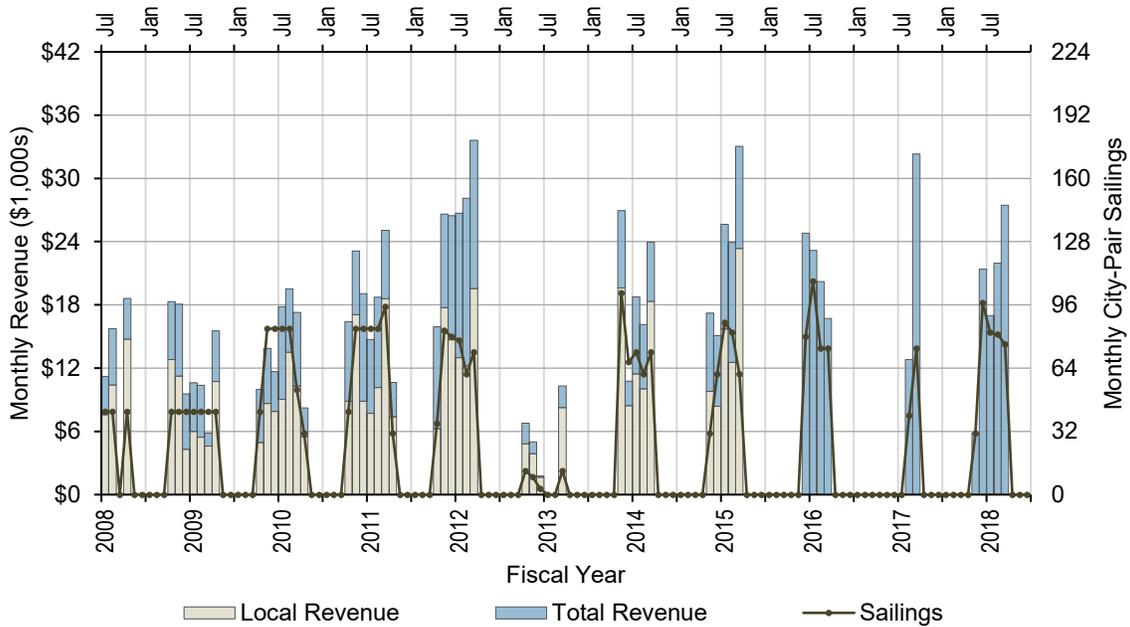
Notes:

- 1) Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016. The *Tustumena* was out of service for an extended period 2012–2013 causing the noticeable drop in revenue and sailings.
- 2) Monthly City-Pair Sailings (the dark olive line) is the count of all combinations of origin/destination city-pairs in each vessel sailing.

Source: Northern Economics analysis using data from AMHS (2019).

Figure 35 shows monthly revenues and city-pair sailings for all travel between Chignik, Sand Point, King Cove, Cold Bay, Akutan, False Pass, and Unalaska, with revenues separated by local and non-local resident ticket purchasers when data is available. Most revenue during the summer months is split relatively evenly between local residents and non-locals, while most revenue during the shoulder months is from local residents.

Figure 35. Monthly Local Resident and Total Revenues and All Combinations of Chignik-Sand Point-King Cove-Cold Bay-Akutan-False Pass-Unalaska Sailings, by Fiscal Year



Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016. The *Tustumena* was out of service for an extended period 2012–2013 causing the noticeable drop in revenue and sailings.

Source: Northern Economics analysis using data from AMHS (2019).

Because of the large number of city-pair combination and the relatively low number of sailings, figures for individual city-pair combinations have not been developed for individual communities in the Southwest route group.

Table 29 summarizes the distribution of vessel operating days within the Southwest Route Group over each of the peak, winter and shoulder seasonal periods. The upper portion of the table shows the number of vessel operating days while the lower portion of the table provides a percentage based on the total number of vessel operating days within the fiscal year.

Table 29. Number of Vessel Operating Days on Southwest Routes by Season with Percentages by Fiscal Year

Fiscal Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018 as % of 2009
Total Days	36	53	66	76	48	36	55	56	41	39	107%
Peak Season	20	25	36	39	28	14	37	43	29	20	103%
Shoulder Season	17	29	30	37	20	22	18	13	12	19	112%
Winter Season	0	0	0	0	0	0	0	0	0	0	N/A
Percent of Operating Days by Season											
Peak Season	54%	46%	55%	51%	59%	39%	67%	77%	70%	52%	96%
Shoulder Season	46%	54%	45%	49%	41%	61%	33%	23%	30%	48%	105%
Winter Season	-	-	-	-	-	-	-	-	-	-	N/A

Source: Northern Economics analysis using data from AMHS (2019).

9 Summary of Cross-Gulf Routes

Historic operating data for the Cross-Gulf routes are shown in Table 30, including the number of vessel operating days within the route group as well as a summary of purchased passenger, car deck, and cabin services. The passenger section includes revenues, the number of passengers who traveled, the total travel distance of passengers (represented as passenger-miles), and the average cost of travel per passenger-mile. The car deck and cabin sections present similar information, but the car deck volume is measured in units of length (feet).

Of the eight route groups, the Cross-Gulf routes provide service to the largest number of communities, 22 in all. The AMHS segments connecting to Whittier are the largest portion of this route group, as measured by revenue. Services between Bellingham and Whittier alone make up more than half of the revenue for the Cross-Gulf group.

Table 30. AMHS Operating Days, Volume and Revenue in Cross-Gulf Routes by Fiscal Year

Fiscal Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018 as % of 2009
Vessel Operating Days	112	97	103	110	141	118	106	115	84	87	77%
Passenger Revenue (\$1,000s)	\$616	\$595	\$1,049	\$1,623	\$1,545	\$1,568	\$1,599	\$1,646	\$1,580	\$1,411	229%
Passengers	5,330	3,926	5,616	6,547	7,775	5,895	5,879	5,115	4,053	3,757	70%
Passenger Miles (1,000s of Pax-NM)	2,518	1,825	3,288	5,272	5,336	5,193	5,020	4,288	3,682	3,223	128%
Revenue Per Passenger Mile (\$)	\$0.24	\$0.33	\$0.32	\$0.31	\$0.29	\$0.30	\$0.32	\$0.38	\$0.43	\$0.44	179%
Car Deck Revenue (\$1,000s)	\$1,841	\$1,270	\$1,921	\$2,938	\$3,311	\$2,964	\$2,883	\$2,888	\$2,641	\$2,576	140%
Car Deck Lengths (1,000s of feet)	64	44	56	64	88	61	61	56	42	41	65%
Car Deck Length-NM (1,000s of feet-NM)	28,359	18,867	29,003	44,651	50,115	45,441	43,517	39,789	32,652	30,850	109%
Revenue per Car Deck Length-NM (\$)	\$0.065	\$0.067	\$0.066	\$0.066	\$0.066	\$0.065	\$0.066	\$0.073	\$0.084	\$0.090	139%
Cabin Revenue (\$1,000s)	\$414	\$292	\$515	\$861	\$900	\$878	\$879	\$860	\$836	\$773	187%
Cabins	2,085	1,454	2,069	2,522	3,143	2,332	2,317	1,995	1,598	1,445	69%
Cabin Miles (1,000s of Cabin Miles)	1,047	722	1,288	2,169	2,259	2,185	2,127	1,829	1,591	1,382	132%
Revenue per Cabin Mile (\$)	\$0.40	\$0.40	\$0.40	\$0.40	\$0.40	\$0.40	\$0.41	\$0.97	\$0.53	\$0.56	142%
Total Revenue (\$1,000s)	\$2,871	\$2,157	\$3,484	\$5,423	\$5,757	\$5,410	\$5,360	\$5,395	\$5,058	\$4,760	166%
Revenue per Vessel-Day (\$/Day)	\$25,634	\$22,355	\$33,830	\$49,521	\$40,731	\$46,042	\$50,568	\$47,117	\$60,211	\$55,031	215%

Source: Northern Economics analysis using data from AMHS (2019).

Table 31 shows the Cross-Gulf routes percentage of passenger, car deck, and cabin revenues separated by residency of the ticket purchaser. Local revenues are derived from ticket purchasers who live in either the departure or arrival city, Other Alaska revenues include all other residents of Alaska,

and Outside Alaska revenues include ticket purchases from residents of other states and countries. The table shows that passenger, car deck, and cabin revenues are derived primarily by non-local ticket buyers (67-87 percent) and local revenues making up 9 to 18 percent of revenues during the analysis period

Table 31. Local/Non-Local Fiscal Year Revenue Percentages by Fare Class on Cross-Gulf Routes

Fare Class	Residency	2009	2010	2011	2012	2013	2014	2015	2016	Average
Passenger Revenue	Local	12%	11%	9%	12%	14%	14%	12%	9%	12%
	Other Alaska	11%	13%	14%	7%	4%	4%	4%	4%	7%
	Outside Alaska	77%	76%	77%	81%	82%	82%	85%	87%	81%
	Subtotal (\$1,000s)	\$616	\$595	\$1,049	\$1,623	\$1,545	\$1,568	\$1,599	\$990	\$1,228
Car Deck Revenue	Local	18%	18%	15%	16%	21%	20%	17%	15%	18%
	Other Alaska	12%	15%	17%	9%	6%	7%	5%	7%	9%
	Outside Alaska	70%	67%	69%	76%	73%	73%	78%	78%	73%
	Subtotal (\$1,000s)	\$1,841	\$1,270	\$1,921	\$2,938	\$3,311	\$2,964	\$2,883	\$1,778	\$2,447
Cabin Revenue	Local	12%	10%	9%	12%	16%	15%	12%	9%	13%
	Other Alaska	11%	14%	16%	8%	4%	4%	3%	4%	7%
	Outside Alaska	77%	77%	75%	81%	81%	81%	85%	87%	80%
	Subtotal (\$1,000s)	\$414	\$292	\$515	\$861	\$900	\$878	\$879	\$508	\$677
Total Revenue	Local	16%	15%	12%	14%	18%	17%	14%	12%	15%
	Other Alaska	12%	14%	16%	8%	5%	6%	4%	5%	8%
	Outside Alaska	73%	71%	72%	78%	77%	77%	81%	82%	76%
	Total (\$1,000s)	\$2,871	\$2,157	\$3,484	\$5,423	\$5,757	\$5,410	\$5,360	\$3,276	\$4,352

Notes:

- 1) Residency Data have not been reported by AMHS since the implementation of its new ticketing system in May 2016.
- 2) Since data for FY 2016 do not include May and June, the average percentage calculations are a weighted average based on revenue from FY 2009 to FY 2015.

Source: Northern Economics analysis using data from AMHS (2019).

Table 32 shows Cross-Gulf route revenues for local and non-local ticket purchasers over different seasonal periods to account for fluctuations in travel activity and service schedules. The peak season includes June, July and August, while the winter season spans from November through March. The remaining months of September, October, April and May are considered the shoulder months. The differences between percentage shares of local and non-local revenue between different seasons are minimal, with most of the revenue coming from non-locals in each season (67 to 80 percent).

Table 32. Local/Non-Local Fiscal Year Revenue Percentages by Season on Cross-Gulf Routes

Season	Residency	2009	2010	2011	2012	2013	2014	2015	2016	Average
Winter Revenue	Local	15%	17%	19%	22%	21%	17%	15%	14%	18%
	Other Alaska	9%	16%	10%	6%	7%	6%	5%	8%	8%
	Outside Alaska	76%	67%	71%	72%	72%	76%	80%	78%	75%
	Subtotal (\$1,000s)	\$1,344	\$229	\$179	\$458	\$1,456	\$641	\$772	\$251	\$726
Shoulder Revenue	Local	16%	18%	15%	12%	18%	18%	17%	14%	16%
	Other Alaska	12%	13%	17%	8%	7%	6%	4%	7%	9%
	Outside Alaska	71%	69%	68%	80%	75%	75%	78%	79%	75%
	Subtotal (\$1,000s)	\$573	\$724	\$1,249	\$2,019	\$1,372	\$1,644	\$1,843	\$1,067	\$1,346
Peak Revenue	Local	16%	13%	9%	14%	17%	17%	13%	11%	14%
	Other Alaska	14%	15%	16%	9%	3%	6%	4%	4%	8%
	Outside Alaska	70%	73%	75%	77%	80%	78%	83%	84%	78%
	Subtotal (\$1,000s)	\$954	\$1,204	\$2,056	\$2,945	\$2,928	\$3,125	\$2,746	\$1,958	\$2,280
Total Revenue	Local	16%	15%	12%	14%	18%	17%	14%	12%	15%
	Other Alaska	12%	14%	16%	8%	5%	6%	4%	5%	8%
	Outside Alaska	73%	71%	72%	78%	77%	77%	81%	82%	76%
	Total (\$1,000s)	\$2,871	\$2,157	\$3,484	\$5,423	\$5,757	\$5,410	\$5,360	\$3,276	\$4,352

Notes:

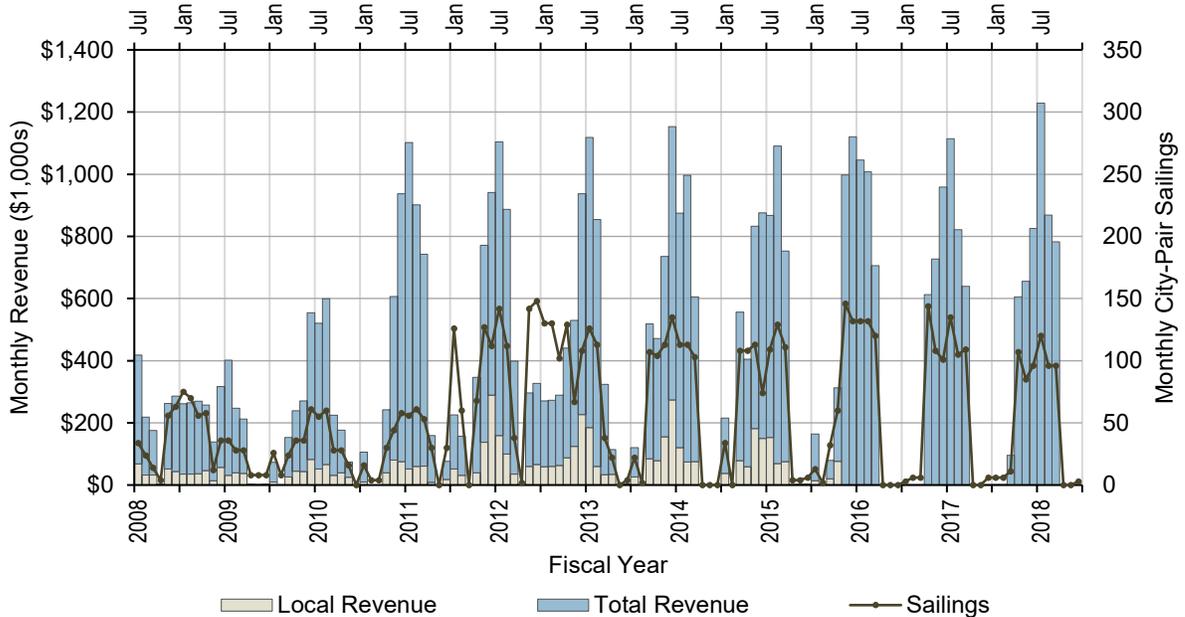
- 1) The Peak Season for AMHS is from June through August. The Winter Season runs from November through March. The Shoulder Seasons are April–May and September–October.
- 2) Residency Data have not been reported by AMHS since the implementation of its new ticketing system in May 2016.
- 3) Since data for FY 2016 do not include May and June, the average percentage calculations are a weighted average based on revenue from FY 2009 to FY 2015.

Source: Northern Economics analysis using data from AMHS (2019).

The following figures represent monthly revenue data for the Cross-Gulf Route Group routes, separated by local and non-local residency when information is available. The solid line represents the number of city-pair sailings connections for all pairs of departure and arrival cities.

Figure 36 shows revenues and city-pair sailings for the entire Cross-Gulf Route Group, and each of the following figures represents travel for a specific pair of departure and arrival cities. Most revenue across all seasons is from non-locals. Note that on Cross-Gulf trips originating in Kodiak with stops in Homer, Chenega, Whittier, Yakutat, Juneau, Ketchikan, and Bellingham, there are 27 origin/destination city pairs.

Figure 36. Monthly Local Resident and Total Cross-Gulf Revenues and Sailings, by Fiscal Year



Notes:

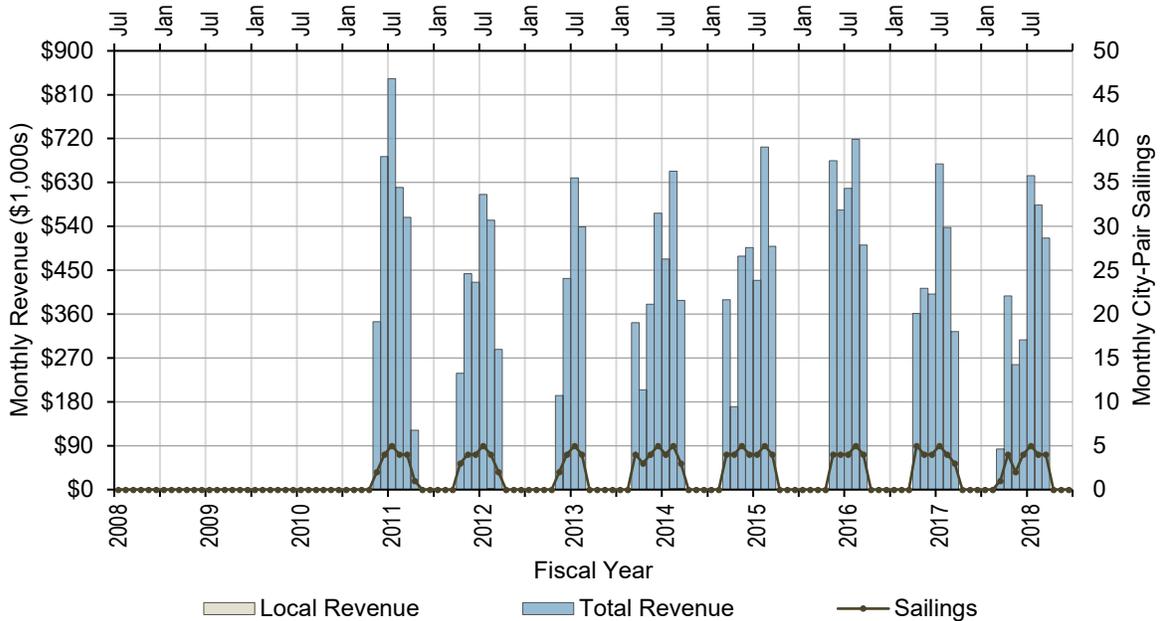
- 1) Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.
- 2) Monthly City-Pair Sailings (the dark olive line) is the count of all combinations of origin/destination city-pairs in each vessel sailing.

Source: Northern Economics analysis using data from AMHS (2019).

Because of the relatively large number of city-pairs comprising the Cross-Gulf route group, the number of figures for individual city-pairs has been limited. In some cases, multiple city-pairs involving a single community have been combined.

Figure 37 shows monthly revenues and city-pair sailings for travel between Bellingham and Whittier, with revenues separated by local and non-local resident ticket purchasers when data is available. Almost all revenue is from non-locals.

Figure 37. Monthly Local Resident and Total Bellingham-Whittier Revenues and Sailings, by Fiscal Year

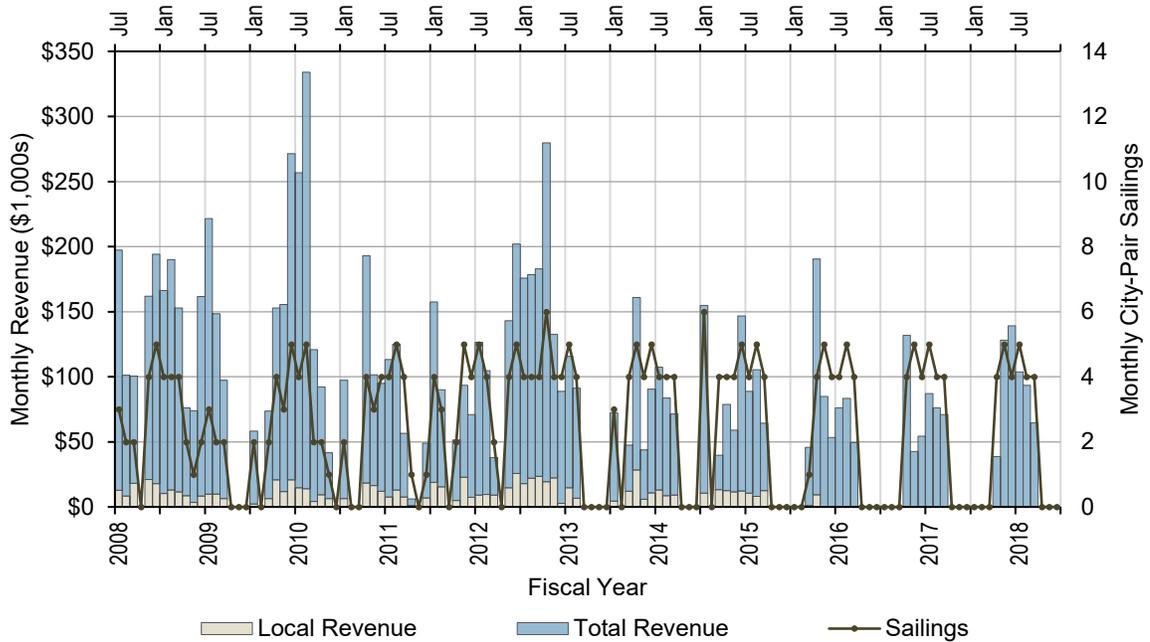


Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

Figure 38 shows monthly revenues and city-pair sailings for travel between Juneau and Whittier, with revenues separated by local and non-local resident ticket purchasers when data is available. Across all seasons, almost all revenue is from non-locals.

Figure 38. Monthly Local Resident and Total Juneau-Whittier Revenues and Sailings, by Fiscal Year

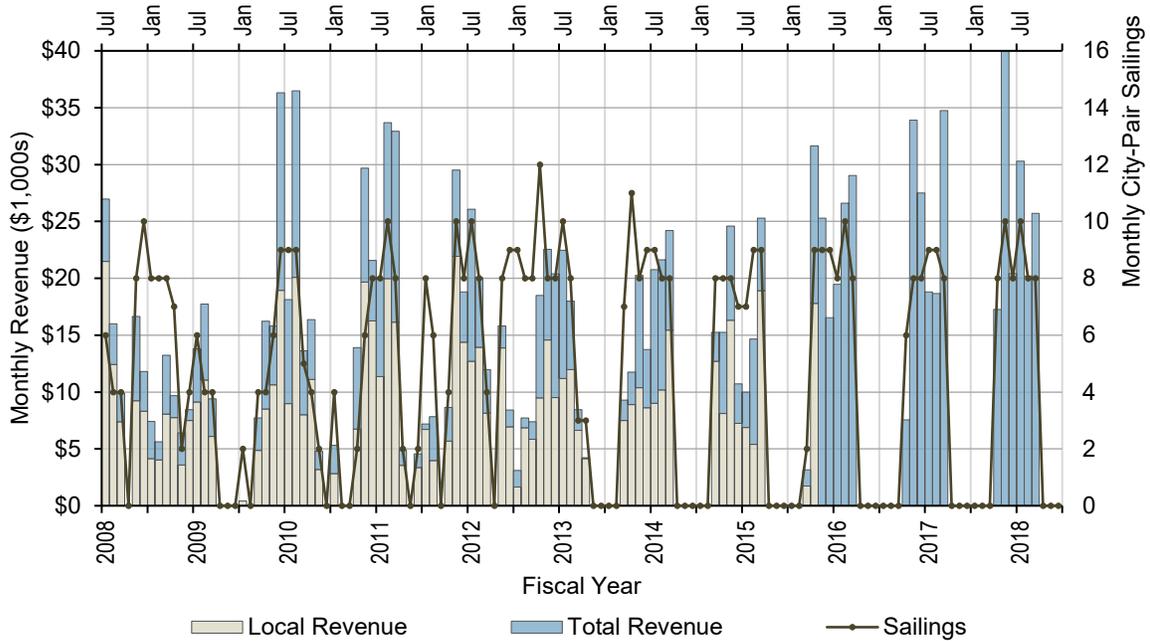


Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

Figure 39 shows monthly revenues and city-pair sailings for travel between Yakutat and either Juneau or Whittier, with revenues separated by local and non-local resident ticket purchasers when data is available. Most revenue in the winter months is from local residents, while revenue during the peak season is more evenly split between local residents and non-locals.

Figure 39. Monthly Local Resident and Total Yakutat-Juneau and Yakutat-Whittier Revenues and Sailings, by Fiscal Year

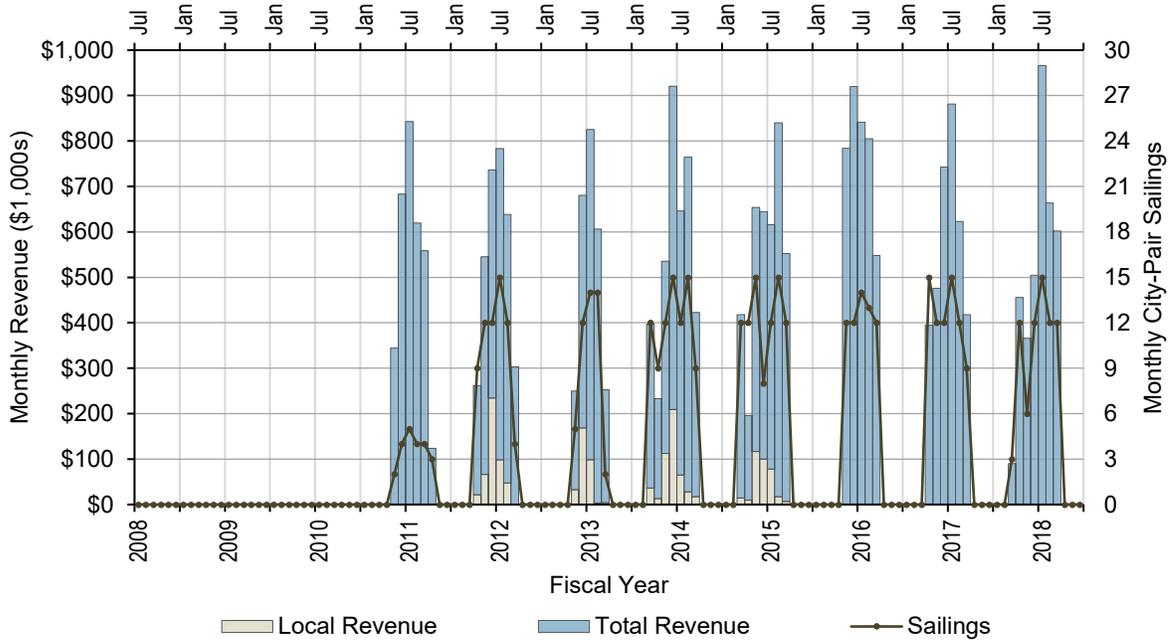


Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

Figure 40 shows monthly revenues and city-pair sailings for travel between Bellingham and either Kodiak, Homer, or Whittier, with revenues separated by local and non-local resident ticket purchasers when data is available. Across all seasons, most revenue is from non-locals.

Figure 40. Monthly Local Resident and Total Revenues and Sailings Between Bellingham and Kodiak, Homer, or Whittier, by Fiscal Year

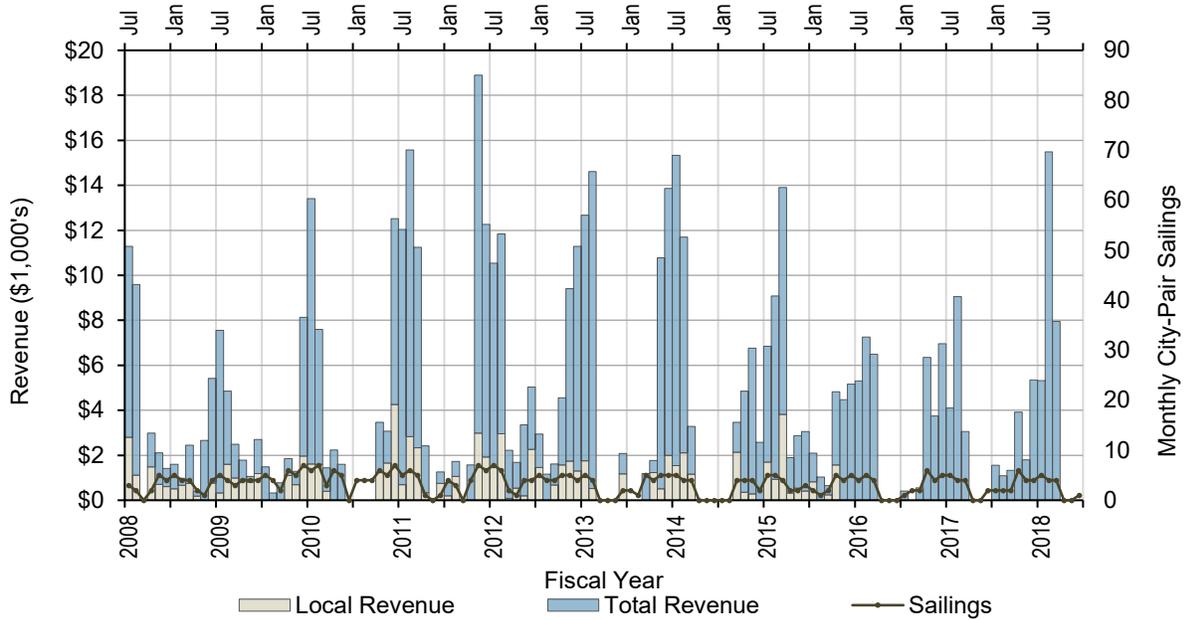


Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

Figure 41 shows monthly revenues and city-pair sailings for travel between Chenega Bay and Whittier with revenues separated by local and non-local resident ticket purchasers when data are available. Across all seasons, most revenue is from non-locals.

Figure 41. Monthly Local Resident and Total Chenega Bay-Whittier Revenues and Sailings, by Fiscal Year



Note: Total revenues for each month are represented by the blue vertical bars, with the portion of those revenues attributable to local buyers indicated by the tan portion of each bar. The local revenue component has not been reported by AMHS since the implementation of its new ticketing system in May 2016.

Source: Northern Economics analysis using data from AMHS (2019).

Table 33 summarizes the distribution of vessel operating days for Cross-Gulf routes over each of the peak, winter and shoulder seasonal periods. The upper portion of the table shows the number of vessel operating days while the lower portion of the table provides a percentage based on the total number of vessel operating days within the fiscal year.

Table 33. Number of Vessel Operating Days on Cross-Gulf Routes by Season with Percentages by Fiscal Year

Fiscal Year	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2018 as % of 2009
Total Days	134	91	113	148	177	147	144	126	84	87	77%
Peak Season	28	38	60	61	58	57	55	52	41	39	167%
Shoulder Season	28	34	43	55	41	57	53	50	38	41	167%
Winter Season	79	19	10	32	78	34	36	25	6	7	11%
Percent of Operating Days by Season											
Peak Season	21%	42%	53%	41%	33%	38%	38%	41%	48%	45%	217%
Shoulder Season	21%	38%	38%	37%	23%	38%	37%	39%	45%	47%	217%
Winter Season	59%	20%	9%	22%	44%	23%	25%	19%	7%	8%	14%

Source: Northern Economics analysis using data from AMHS (2019).

10 Reference

Alaska Marine Highway System (AMHS). 2019. Ticket and Sailing Data from July 1, 2008 through December 31, 2018 for the Alaska Marine System. Provided on request from AMHS. July 17, 2019.