

King Cove Transportation Survey

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Contents

Executive Summary.....ii

Introduction.....1

Methodology..... 2

Results..... 3

 Respondents’ Demographics..... 3

 King Cove Residents and PPSF Management Questionnaire Results 5

 PPSF Processing Employees (Living In Group Housing) Questionnaire Results 12

Figures

Figure 1. Respondents' Residency Time 3

Figure 2. Respondents' Age..... 3

Figure 3. Respondents’ Housing Statistics 4

Figure 4. Respondents' Race 4

Figure 5. Respondents' Number of Boat Trips..... 8

Figure 6. Respondents with Cold Bay Dock Concerns..... 8

Figure 7. Respondents that had Problems Leaving King Cove During a Medical Emergency 9

Figure 8. King Cove Resident Respondents' Level of Concern with Travelling from King Cove .. 10

Figure 9. King Cove Resident Respondents' Concerns with Travelling from King Cove 11

Figure 10. Number of years Respondents have Been Coming to King Cove 12

Figure 11. Weather Delays Experienced by Respondents 13

Figure 12. PPSF Respondents that had Problems Leaving King Cove During an Emergency 13

Figure 13. Respondents Level Concern for Getting to Work.....14

Figure 14. Respondents Level of Concern for Getting Home.....14

Figure 15. Respondents level of Concern for Getting to a Hospital from King Cove.....15

Figure 16. Respondents' Level of Concern for Getting Home in a Family Emergency 15

Tables

Table 1. Number of Adults per Household.....5

Table 2. Number of Children per Household.....5

Table 3. Years of Residency.....6

Table 4. Number of Trips to Cold Bay.....6

Table 5. Number of Travel Delays.....7

Table 6. Trips for Health Care.....7

Executive Summary

The King Cove Group (KCG), collectively the Agdaagux and Belkofski Tribes, King Cove Corporation, Aleutians East Borough, and City of King Cove, contracted with Solstice Alaska, Inc. (Solstice) to conduct a survey in King Cove of residents and Peter Pan Seafoods (PPSF) workers living in group housing in King Cove. The intent of this survey was to record and document various travel characteristics and attitudes of permanent and transient King Cove residents related specifically to travel between King Cove and the Cold Bay airport.

It is a well-known fact that weather and flying conditions routinely interfere with permanent and transient King Cove residents' ability to predictably fly between the community and the Cold Bay Airport which provides access to the rest of the state. Information in previous studies, observations, and testimonies has clearly documented this is a major transportation safety and reliability issue.

Solstice developed the survey instrument, administered the household survey using trained local interviewers, and summarized the results. The survey included 68 randomly selected households out of the 181 households in King Cove.

Additionally, a separate transportation survey of 72 randomly selected transient residents out of the 383 workers on site at the time was completed. Transient residents are the more than 300 seafood processing workers who come to King Cove two or three times a year corresponding with the various harvesting seasons of salmon, crab, and bottomfish at the large Peter Pan Seafood cannery.

The key findings of the survey of King Cove residents are:

57% of King Cove households travel between King Cove and Cold Bay Airport 1 to 4 round trips per year; 28% travel 5-8 times per year; and, 15% travel 9-20 times per year;

61% of these trips include health related issues and/or appointments;

68% of the households experience travel delays at least 50% of the time, with travel delays defined as more than a few hours;

88% responded that when the weather was too bad to fly, they choose to take a boat trip (2-3 hours depending on sea conditions) when available. When taking a boat, 78% are concerned about using the Cold Bay dock (i.e. the dock ladders) to come ashore;

58% surveyed indicated they or a family member have experienced problems leaving King Cove to get to the Cold Bay Airport in a medical emergency;

78% of King Cove households have at least one person who is significantly afraid of flying and/or experiences high stress levels before or during these flights due to concerns of weather and turbulence; and,

82% of King Cove households have incurred unexpected expenses (defined as over \$200/trip) due to these continuous travel delays.

The key findings of the survey of transient workers are:

64% of these transient residents have been coming to King Cove for more than five years;

61% of these surveyed said they have experienced significant delays in traveling to King Cove due to bad flying conditions, with travel delays defined as more than a few hours;

80% of these transient residents said they were “concerned” or “very concerned” about getting to a hospital if they were hurt or sick; and, 22% of these residents have experienced a problem leaving King Cove for a medical emergency; and,

79% said they were “concerned” about getting to the Cold Bay Airport for a family emergency outside the immediate area.

Introduction

The King Cove Group (KCG), collectively the Agdaagux and Belkofski Tribes, King Cove Corporation, Aleutians East Borough, and City of King Cove, contracted with Solstice Alaska, Inc. (Solstice) to conduct a survey in King Cove of residents and Peter Pan Seafoods (PPSF) workers. The intent of this survey was to record and document various travel characteristics and attitudes of permanent and transient King Cove residents related specifically to travel between King Cove and the Cold Bay airport.

The King Cove airport is a small gravel strip with limited service and documented problems stemming from its mountainous location. The hub airport in Cold Bay has the third longest public runway in the state, a crosswinds runway, weather service station and FAA flight service station. The Cold Bay airport has daily commercial service. It serves as the Aleutian Island/Bering Sea medical evacuation point because it is available around the clock, throughout the year and in the worst Aleutian weather.

The primary goal of this work was to measure and document transportation problems between King Cove and the Cold Bay Airport. It is a well-known fact that weather and flying conditions routinely interfere with permanent and transient King Cove residents' ability to predictably fly between the community and the Cold Bay Airport. Consequently, a large percentage of King Cove residents have a significant fear of flying. Information in previous studies, observations, and testimonies have clearly documented this is a major transportation safety and reliability issue. Thirty to forty percent of the time flights to and from King Cove to Cold Bay Airport do not occur on a dependable basis due to wind and turbulence, fog, and rain/snow squalls. The survey was designed to help document these transportation access issues.

A second goal was to determine if residents or itinerant workers had health care issues, including mental health, which were impacted by Cold Bay airport access problems. The Eastern Aleutian Tribes, Inc. (The regional non-profit Native health organization is commonly referred to as EAT.) had shared with the other King Cove Group members the results of research completed on the "Did Not Keep Appointment Rates" (DNKA) at the Alaska Native Medical Center in Anchorage. This otherwise confidential report showed that in a recent six-month period the DNKA rate at the Alaska Native Medical Center for patients from King Cove was 31%. The total number of appointments during this period for King Cove residents was 440, the number of appointments kept was 136, and number of missed appointments was 304.

To put that percentage in a context, of the six EAT member communities in the Borough, the range of percentage of missed appointment was highest with Nelson Lagoon at 36% and King Cove at 31%; the lowest was Cold Bay with 3%. The other communities' rates ranged from 13% to 18%. The report cautions there were problems with Cold Bay numbers.

The DNKA report speculated, "We also believe that many of the missed appointments are weather related and locations with higher numbers have experienced more bad weather travel

days than normal. This we believe is part of the cause of the high King Cove numbers". The King Cove Group was interested in seeing if access problems to the Cold Bay airport impacted the reported high percentage of missed medical appointments by King Cove residents. The King Cove Group requested a survey that was concise with limited socio-economic data. They did not want to address any other issues that might concern residents and workers in King Cove. They asked that it have a survey instrument that could be completed by respondents quickly and be concluded with a summary report as soon as possible. Their direction was that the survey should address only access issues between King Cove and the airport at Cold Bay and should concentrate on health, including mental health, and safety concerns.

Methodology

The two survey instruments were developed for the two separate types of respondents. One questionnaire was aimed at King Cove residents, including PPSF managers living in company-owned houses. The other survey instrument was specific to processing workers living in transient housing. The questionnaires were developed by Solstice staff working closely with the King Cove Group, primarily the City Manager.

The Department of Commerce, Community and Economic Development's current certified population estimate for King Cove is 948. The 2010 U.S. Census lists 181 occupied households. The target number of King Cove resident respondents was set at 60 households. The King Cove Group felt that surveying one third of the households was an adequate sample because the community is homogeneous and most residents have lived in King Cove all their lives.

Two long-time residents and college students, Amberly Weiss and Shauna Jo Calver, were hired to conduct the surveys. They worked from August 14- 22, 2012. To conduct the survey of residents, a community map was used and each dwelling was numbered. The surveyors visited house one then skipped the next two then on to house four and skipped the next two. If house one and four were unavailable or unwilling, they went to house two then three in the series. They continued this pattern throughout the community and concluded with 68 households surveyed. Most of the interviews with residents took place in the early evening hours and over the weekend.

The number of PPSF employees, both management and other workers, in King Cove at the time of the survey was 383, according to the PPSF human resources manager. A Solstice representative and the King Cove City Manager worked with PPSF to come to a plan to interview processing workers. The plan was for the surveyors to set up a survey station in the "break room" at PPSF on August 22nd, during the morning break and afternoon break times and to quickly survey workers as they took their work breaks. The two surveyors asked each person entering the break room if they would participate in a quick transportation survey and administered the survey to all those willing. Seventy-two (72) surveys were completed during the time allotted for interviews.

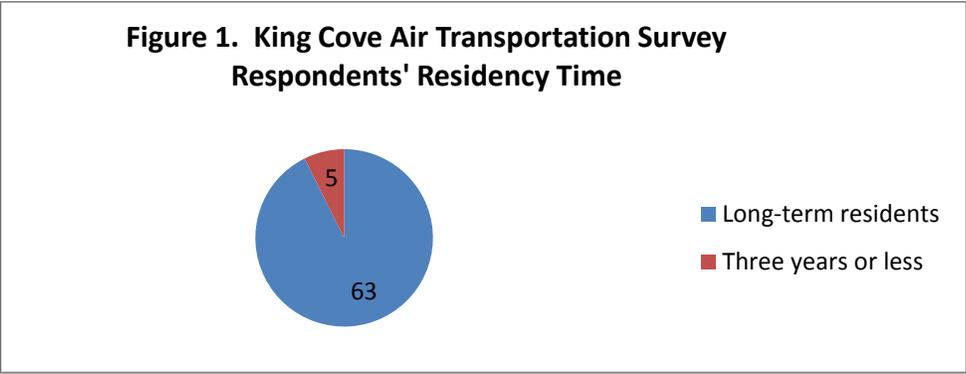
As an added inducement for residents and processing workers to participate, raffle tickets were given out for each completed survey to be eligible for 5 prize drawings of \$100 each toward purchases at local King Cove stores.

The questionnaires and survey directions are attached in Appendix A.

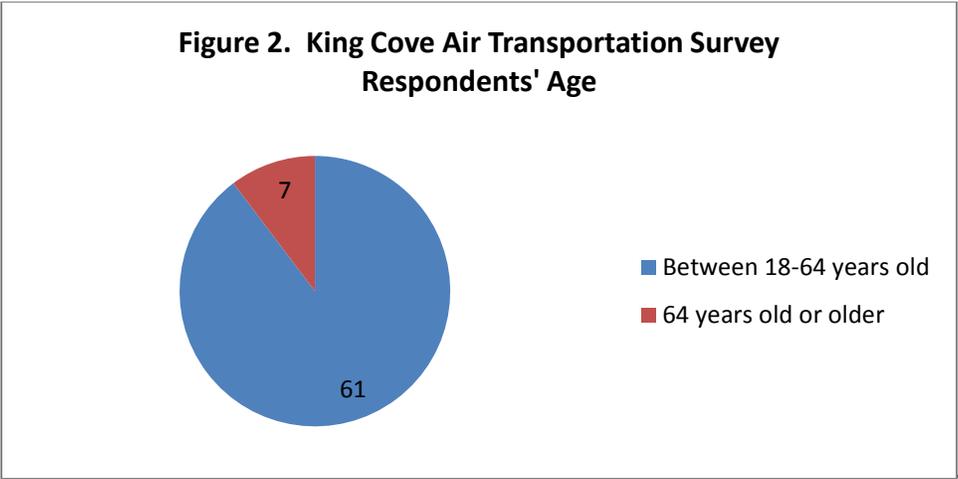
Results

Respondents' Demographics

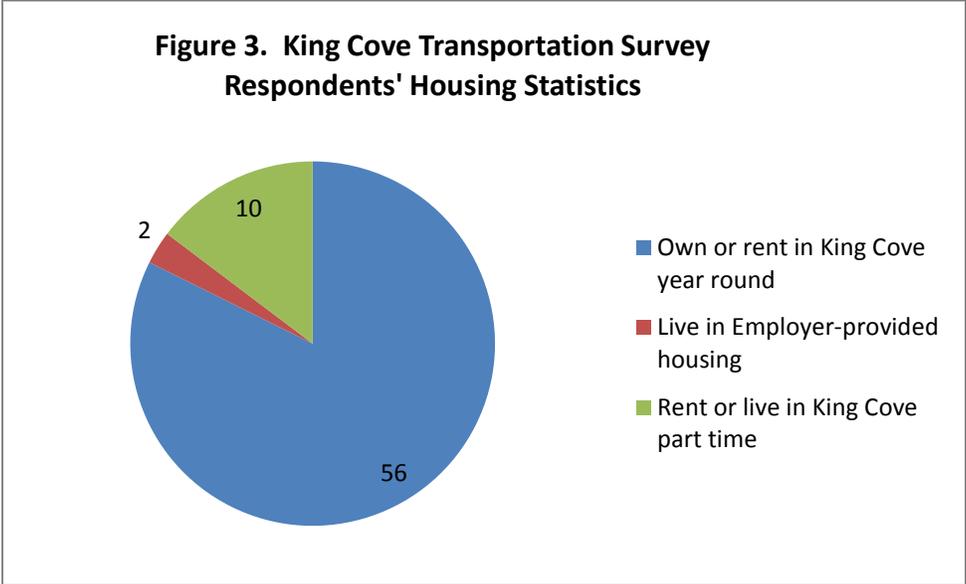
There were 68 surveys completed. Sixty-three (63) respondents, 92.6% of the total, were long-term residents and 5 respondents, 7.4%, had lived in King Cove three years or less (Figure 1).



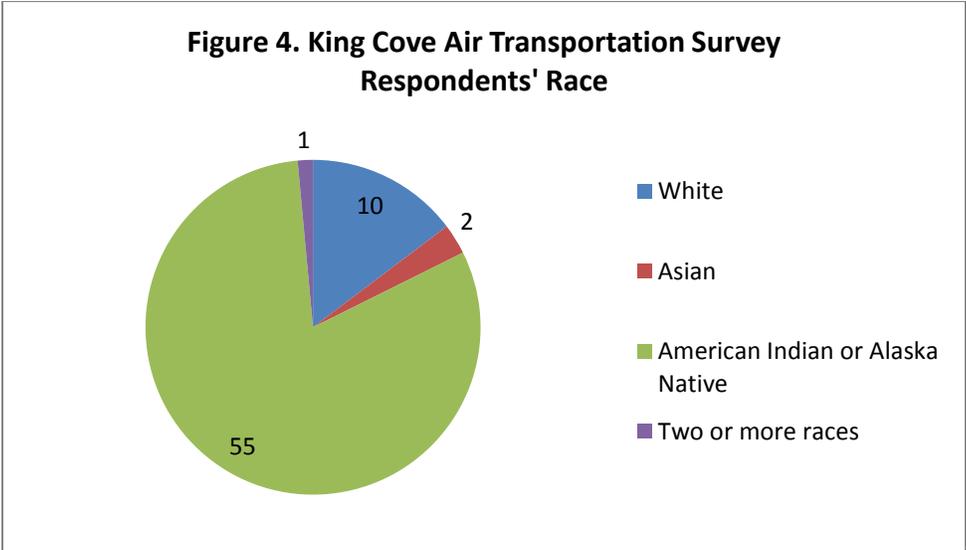
Of the total 68 respondents, 61 respondents, 89.7% of the total, were between the ages of 18-64. Seven respondents, 10.3%, were 64 years old or older (Figure 2).



Fifty-six (56) of the respondents, 82.4% of the total, owned or rented a house in King Cove year round. Two respondents, 2.9%, lived in employer-provided housing and ten respondents, 14.7% rented an apartment or lived with friends or family in King Cove part time (Figure 3).



Ten of the respondents, 14.7% of the total, identified themselves as white; two respondents, 2.9% of the total, as Asian and 55, 80.9% of the total, as American Indian or Alaska Natives and one respondent, 1.5%, as two or more races (Figure 4).



The composition of King Cove households was listed in two ways: The number of adults per household and the number of children per household (Tables 1 and 2). There were 15 one-

adult households; 32 two-adult households; 7 three-adult households; 2 four-adult households. Total number of adults in all households was 108. There were 30 households with no children; 5 households with one child; 12 households with two children; 6 households with three children; one household each with four, five and six children. The total number of children in all households was 62.

Table 1. Number of Adults per Household of King Cove Transportation Survey Respondents

	Number	%
One Adult Year Round Households	15	26.8%
Two Adult Year Round Households	32	57.1%
Three Adult Year Round Households	7	12.5%
Four Adult Year Round Households	2	3.6%
Total Year Round Households	56	
Total Year Round Adults	108	

Table 2. Number of Children per Household of King Cove Transportation Survey Respondents.

	Number	%
No Child Households	30	53.6%
One Child Households	5	8.9%
Two Children Households	12	21.4%
Three Children Households	6	10.7%
Four Children Households	1	1.8%
Five Children Households	1	1.8%
Six Children Households	1	1.8%
Total Households	56	
Total Children	62	

King Cove Residents and PPSF Management Questionnaire Results

The Questionnaire for King Cove Residents and PPSF Management Employees was administered by personal interview to 66 residents and 2 management employees who live in Peter Pan Seafood houses. The first question was “How long have you lived in King Cove?” The answers varied from the shortest time of two weeks to the longest at 84 years. Nine respondents were residents ten years or less. Fifty respondents, 73.5% of the total, reported that they had lived in King Cove between 11 and 50 years and 7 reported their residency at between 51 and 84 years. Table 3 further details the numbers.

Table 3. Years of King Cove Residency of King Cove Transportation Survey respondents.

Years in King Cove	Number	%
Total 0-10 years	10	14.7%
11-20 years	5	7.4%
21-30 years	13	19.1%
31-40 years	14	20.6%
41-50 years	17	25.0%
Total 11-50 years	59	86.8%
51-60 years	2	2.9%
61-70 years	4	5.9%
71-84 years	1	1.5%
Total 51-84 years	7	10.3%
No Answer Given	2	2.9%
Total Respondents	68	

Question Two asked, “In an average year, how often do you or family members travel Cold Bay or through Cold Bay to points beyond?” Many of the answers were in a range; for example 2 to 3 times a year or 4 to 5 times a year. Table 4 responses have been grouped to cover those ranges.

Table 4. Number of trips to Cold Bay of King Cove Air Transportation Survey Respondents

Number of trips to Cold Bay in an average year	Number	Percentage
1 trip, 1-2 trips, 2 trips	16	23.9%
2-3 trips, 3 trips,	13	19.4%
3-4 trips, 4 trips	9	13.4%
One Trip - Four Trips Annually	38	56.7%
5 trips, 5-6 trips	8	11.9%
6 trips, 6-7 trips, 7 trips,	5	7.5%
6-8 trips, 8 trips	6	8.9%
Five Trips - Eight Trips Annually	19	28.3%
9-10 trips	5	7.5%
12 trips	2	3.0%

14 trips	1	1.5%
15 trips	1	1.5%
20 trips	1	1.5%
Nine Trips - Twenty Trips Annually	10	15.0%
Total Households	67	
Total Annual Trips	124	

Question Three asked, “Have you or a family member experienced delays in traveling between King Cove and Cold Bay as a result of bad weather? We know that air travel often involves delays, but we are asking about delays of more than a few hours.” Only three of the respondents had experienced no significant delays. Responses are detailed Table 5.

Table 5. Number of Travel Delays of King Cove Air Transportation Survey Respondents

Frequency of Delays	Number	Percentage
No significant delays	3	4.4%
Yes - Only rarely	7	10.3%
Yes - Less than half the time	11	16.2%
Yes - About half the time	20	29.4%
Yes - More than half the time	17	25.0%
Yes - Almost all the time	9	13.2%
No Answer	1	1.5%

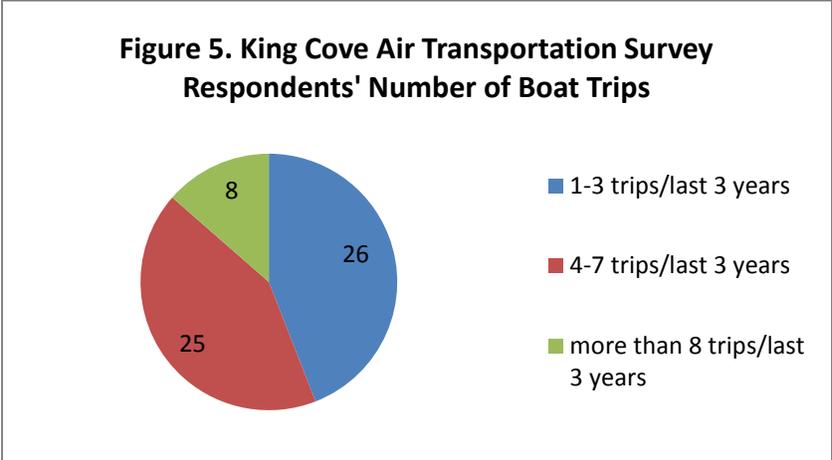
Question Four asked, “Of those trips to Cold Bay and points beyond, what percent of your trips included appointments, treatment or procedures for health care? Health care in this survey means physical health, professional mental health, and dental health appointments, treatment and hospital care and includes preventive care like dental check-ups.” The highest percentage of responses, about 38%, took trips to Cold Bay and points beyond for health care (Table 6). It should be noted that about 26% of the responses had few or no trips for health care.

Table 6. Trips for Health Care for King Cove Air Transportation Respondents

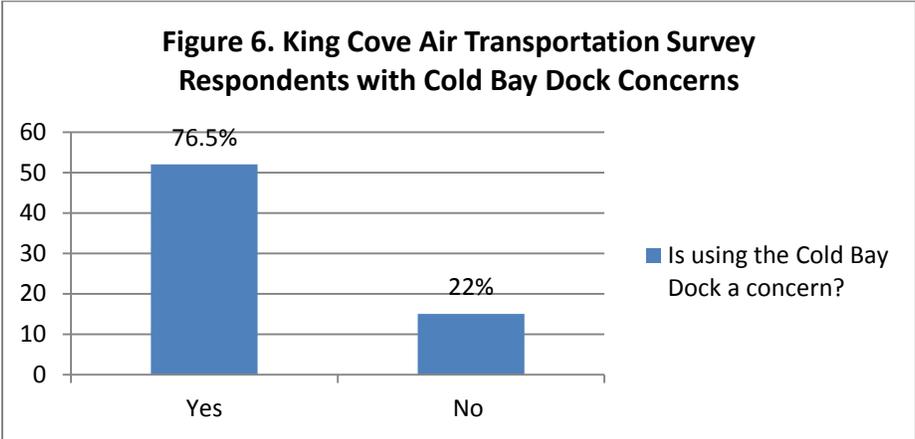
	Number	Percentage
None or few	17	25.0%
Less than half	9	13.2%
About half	15	22.0%
More than half	25	36.8%
No Answer	2	2.9%

Question Five asked, “Have you or a family member ever had to take a boat between King Cove and Cold Bay because the weather has too bad to fly?” Sixty (60) of the 68 respondents, 88%, replied yes.

In estimating the frequency of having to take a boat within the past three years, 26 of the yes respondents (43.3%) choose between 1-3 times. Twenty-five respondents of the yes respondents (41.6%) estimated 4-7 times, and 8 respondents (13.5%) estimated 8 times or more (Figure 5). One of the yes respondents (1.7%) did not provide an estimate of the number of times.

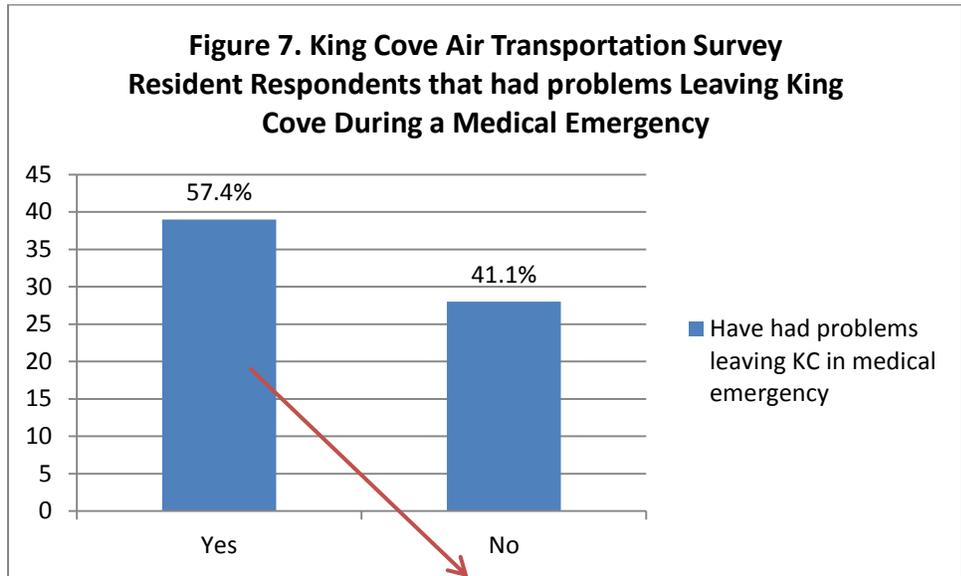


Question Six asked, “When you have needed to take a boat, is using the Cold Bay Dock a concern or worry for you? Of the 67 respondents, 52 respondents said the Cold Bay Dock was a concern; 15 respondents said that the dock was not a concern (Figure 6). One respondent (1.5% of all respondents) did not provide an answer.



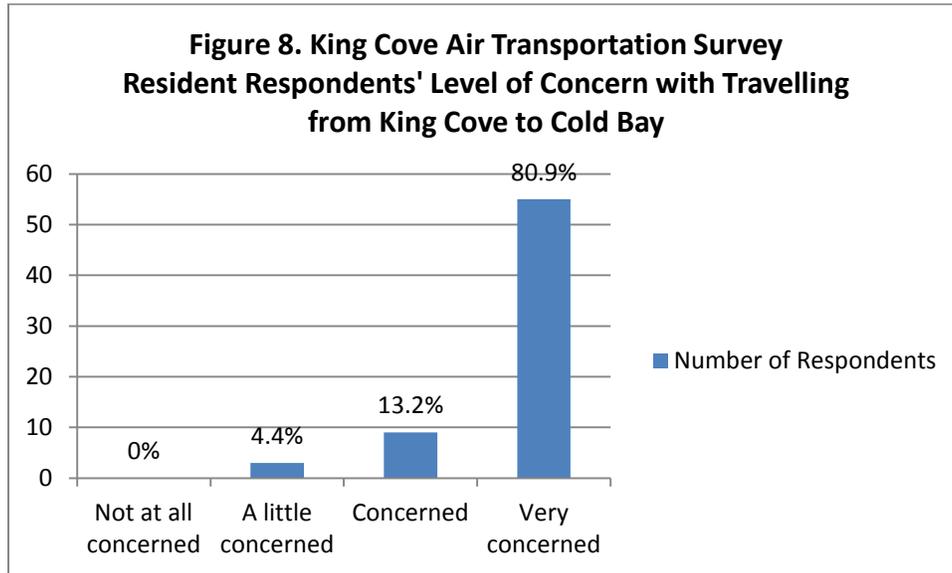
Question Seven asked, “Have you or a family member had a problem leaving King Cove in a medical emergency not covered in the previous question? More than half the respondents (39 people) said that they or a family member had had a problem leaving King Cove in a medical emergency and 28 respondents said that they had not had a problem leaving for a medical emergency (Figure 6). One respondent did not provide an answer to this question.

Question Number Seven asks those had problems leaving King Cove during a medical emergency to estimate the number of times they have had problems leaving King Cove in a medical emergency. Of the 39 yes answers, 13 said once, 9 said twice, 5 said three times, one person said 4 or 5 and another person said five times. One person responded that he/she had problems leaving King Cove in a medical emergency ten times. Another person who identified herself as a medical provider said she said problems with medical evacuations to twenty times. Total number of problems leaving King Cove in a medical emergency by all respondents was 85.



Number of times having trouble with leaving	Responses
1 time	18
2 times	9
3 times	5
4 or 5 times	1
5 times	1
10 times	2
12 times	1
20 times (medical provider)	1
Total times	92 or 93

Question Number Eight asked, “How would you rate your level of concern about getting from King Cove to Cold Bay if you or a family member needed an emergency evacuation in the future?” None of the respondents choose the “Not at all concerned” option. Three selected the “A little concerned” option. Nine chose “Concerned”. Fifty-five respondents, 80.9%, said they were “Very Concerned” (Figure 7). One respondent did not answer this question.



Question Nine asked the 68 respondents to check all the statements below that apply. The tally of checked responses appears on the left.

Fifty-three (53) respondents (77.9%) said that the following statement apply to them: "Because of past flights between King Cove and Cold Bay, I or someone in my family is afraid of flying and/or experiences high stress levels before or during these flights."

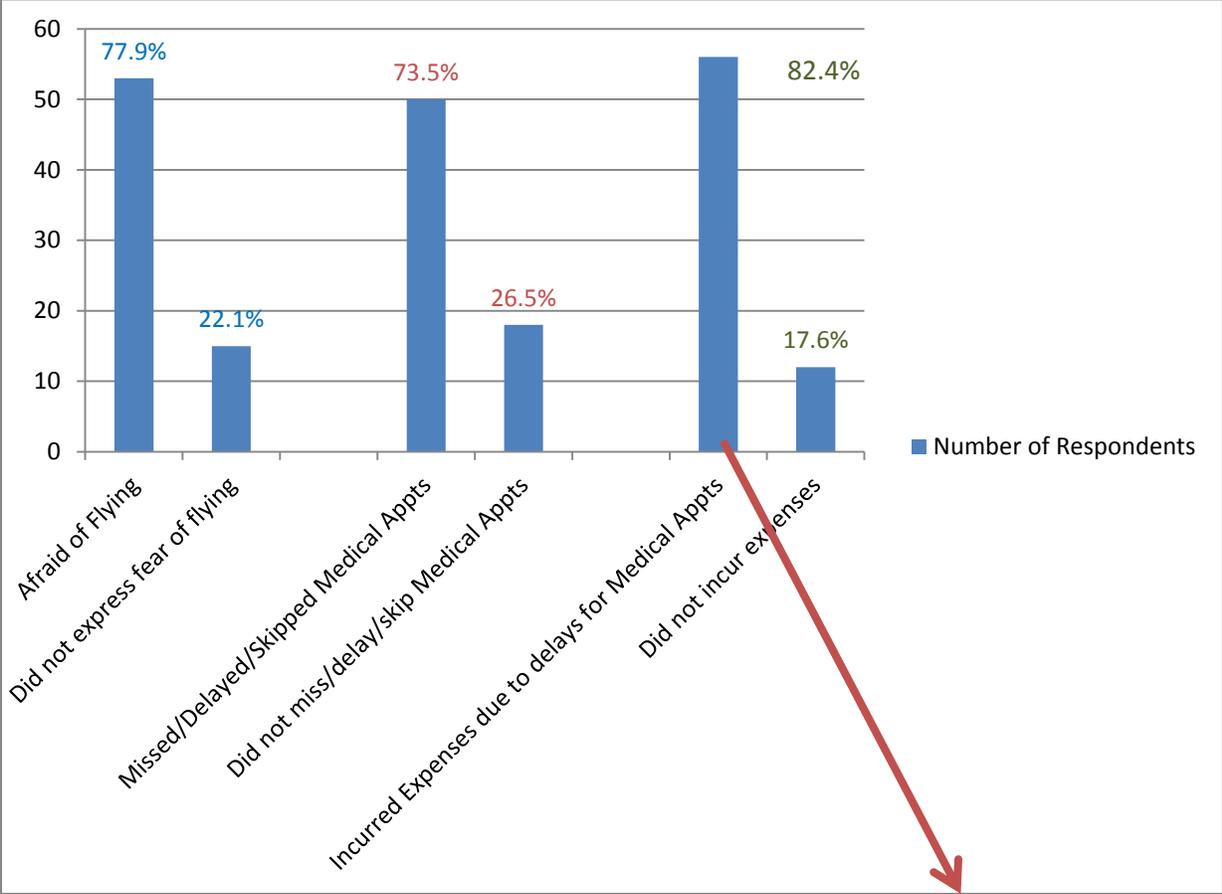
Fifty (50) respondents (76.9%) said that the following statement applied to them: "In the past I have either missed, delayed, or skipped health/dental care appointments because of weather related delays in my connection between King Cove and Cold Bay."

Fifty-six (56) respondents (82.4%) said that the following statement applied to them: "In the past I have had to incur unexpected expenses because of travel delays between King Cove and Cold Bay related to health care appointments." These respondents indicated the cost range was \$200 or less for sixteen of them and \$200-\$500 for 24 of them and was \$500 or greater for 16 of them.

Six (6) respondents (8.8% of all respondents) said none of the above statements in question nine applied to them. Forty-one (41) respondents (60.3% of all respondents) said that all of the above statements applied to them.

Question Nine results are detailed in Figure 9.

Figure 9. King Cove Air Transportation Survey Resident Respondents' Concerns with Travelling from King Cove to Cold Bay



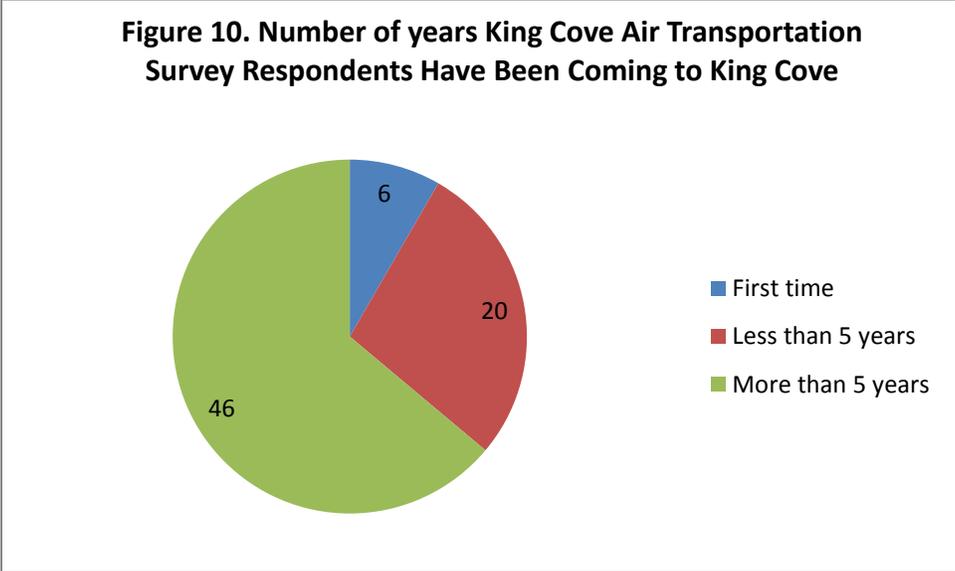
Incurring expenses for delays.	Number of Respondents
Spent \$200 or less	16
Spent \$200 - \$500	24
Spent \$500 or more	16

The last question asked, “Do you have a story about you travel between King Cove and Cold Bay? Is there anything you would like to say about travel between King Cove and Cold Bay that I have not asked?” The responses are documented in Appendix B.

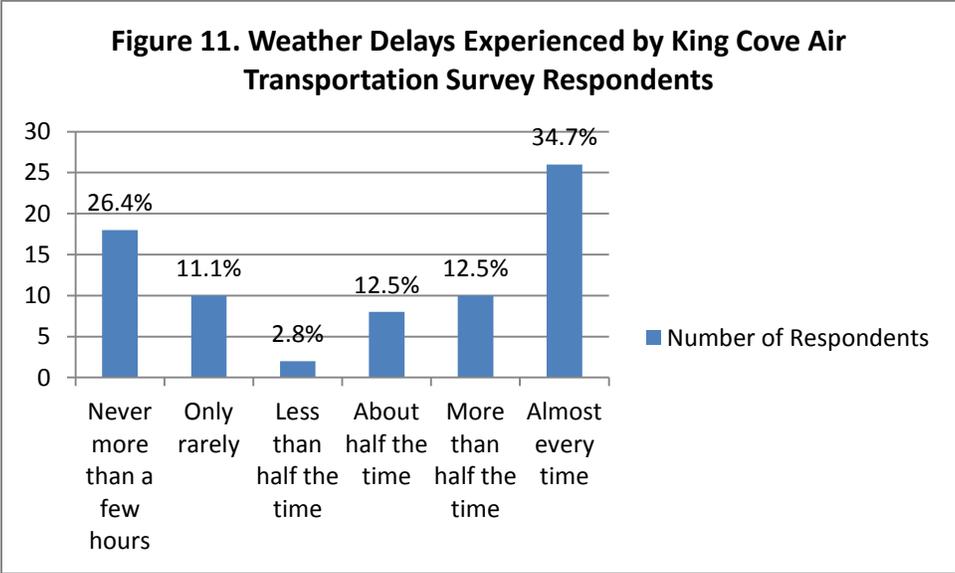
PPSF Processing Employees (Living In Group Housing) Questionnaire Results

The surveyors reported that during the two break periods that they were administering surveys, 72 employees were interviewed. Of the 72, all but 3 were Filipino and all spoke English without needing a translator.

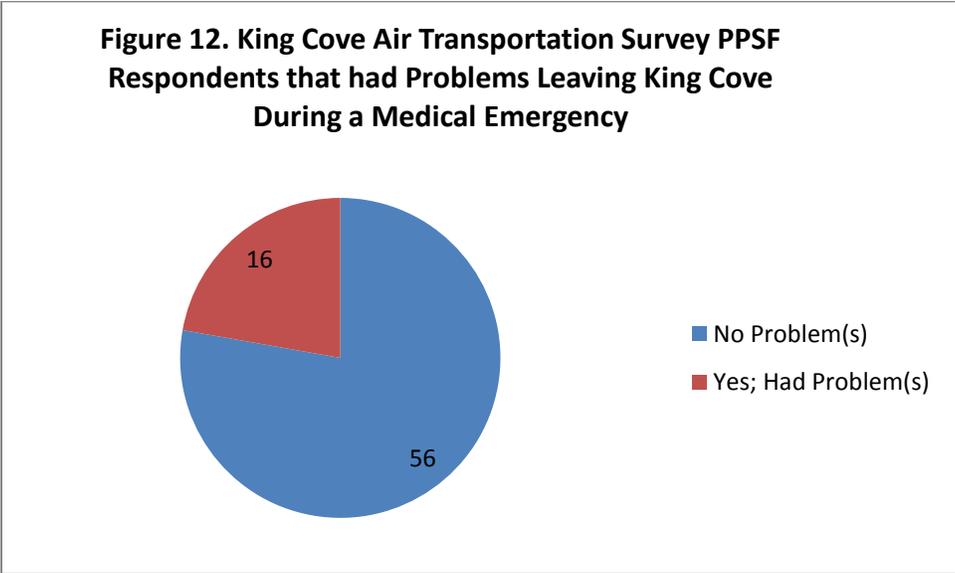
The first question asked how long the employee had been coming to King Cove for work. Six (6) workers (8.3%) reported this was their first time. Twenty (20) workers (27.8%) had been coming less than five years. Forty-six (46) workers (63.8%) had been coming to King Cove to work for more than five years (Figure 10).



Question two asked, “Have you ever experienced delays in traveling between your home and King Cove as a result of bad flying conditions between Cold Bay and King Cove? Nineteen (19) respondents answered “No, I have never been delayed more than a few hours.” Eight (8) workers said “only rarely”; two (2) workers said “less than half the time”; nine (9) said “about half the time”; nine (9) said “more than half the time” and twenty-five (25) said “almost every time.” (See Figure 11.)

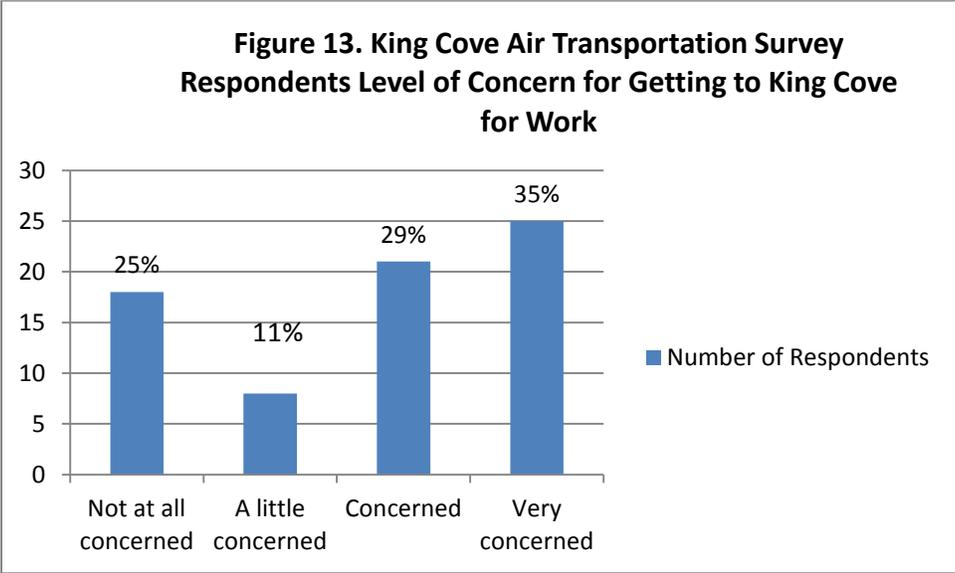


Question Three asked, “Have you had a problem leaving King Cove in a medical emergency?” Sixteen (16) respondents had to leave King Cove during a medical emergency in the past while and 56 did not have any problems in leave King Cove during an emergency. (See Figure 12.)

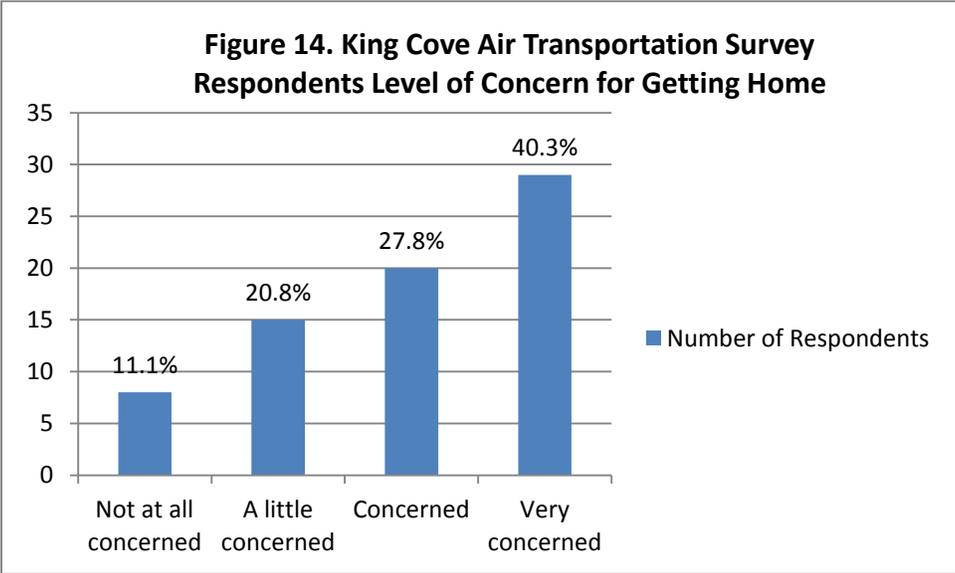


Questions four through seven asked the respondent to rate their level of concern regarding the air transportation between King Cove and Cold Bay. The question and their responses follow. Question Four asked “How would you rate your level of concern about being delayed getting to your job in King Cove?” Most of the respondents (25 respondents) were very concerned or concerned (21respondents) about being delayed travelling to their job in King Cove. Eight (8) respondents were a

little concerned and eighteen (18) respondents were not at all concerned about getting to their jobs in King Cove. (Figure 13).

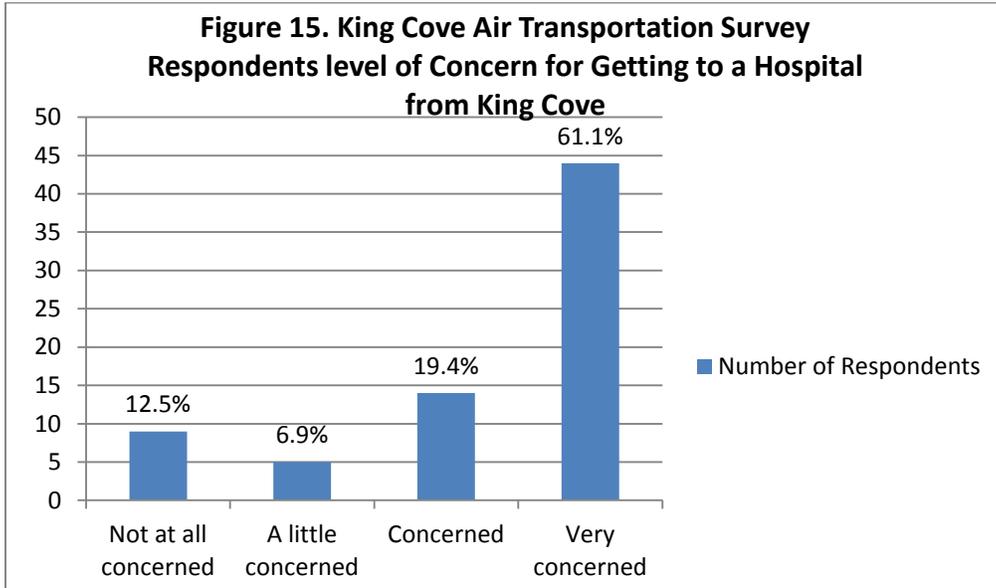


Question Five asked, “How would you rate your level of concern when trying to get to Cold Bay on your travel day when you are scheduled to leave King Cove?” Most of the respondents (29) were very concerned about being delayed travelling home from King Cove. About 89% were either a little concerned (15 respondents), concerned (20 respondents), or very concerned (29 respondents) about travelling home from their job in King Cove. Eight (8) respondents were not concerned about getting home from their job in King Cove (Figure 14).



Question Six asked, “How would you rate your level of concern about getting to a hospital from King Cove if you were hurt or very sick?” A majority of the respondents (44 respondents) were very concerned about being delayed travelling to a hospital from King Cove. Five (5) respondents were a

little concerned; Fourteen (14) were concerned about travelling to a hospital from King Cove. Nine (9) respondents were not concerned about getting a hospital from King Cove (Figure 15).



Question Seven: “How would you rate your level of concern about getting to Cold Bay from King Cove if you needed to return home for a family emergency?” A majority of the respondents (43) were very concerned about being delayed returning home from King Cove for a family emergency. Seven (7) respondents were a little concerned and fourteen (14) were concerned about being delayed travelling from King Cove for a family emergency. Eight (8) respondents were not concerned about getting home from King Cove for a family emergency (Figure 16).

